Chemical Geology 341 (2013) 84–101

Contents lists available at SciVerse ScienceDirect

Chemical Geology

journal homepage: www.elsevier.com/locate/chemgeo

Campaign-style titanite U–Pb dating by laser-ablation ICP: Implications for crustal flow, phase transformations and titanite closure

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ARTICLE INFO

Article history:
Received 7 September 2012
Received in revised form 24 November 2012
Accepted 26 November 2012
Available online 19 December 2012

Editor: K. Mezger

Keywords:
Titanite
Ultrahigh-pressure
U–Pb
Norway

ABSTRACT

U–Pb dates of titanite from >150 samples of chiefly quartzofeldspathic gneiss and leucosomes were measured across the Western Gneiss Region of Norway to understand deformation and metamorphism of typical crustal rocks during ultrahigh-pressure (UHP) subduction and exhumation. Titanite is unstable at these high temperatures and pressures, and, indeed, most of the titanite yielded post-UHP dates. A modest number of titanites sampled across large areas, however, have pre-UHP U–Pb dates, indicating that they survived their excursion to and return from mantle depths metastably. This has three important implications. 1. Titanite grains can remain closed to complete Pb loss during regional metamorphism at temperatures as high as 750 °C and pressures as high as 3 GPa. 2. Phase transformations in quartzofeldspathic rocks can be inhibited at the same conditions. 3. Quartz-bearing rocks can remain undeformed even at high temperature and pressure. Both of the latter were previously recognized; the present study simply presents a new method for evaluating both using titanite U–Pb dates.

1. Introduction

Understanding the mechanical and chemical behavior of crustal rocks as a function of pressure (P) and temperature (T) has long been a fundamental goal of Earth science—indeed, calculations based on assumed rheologies and reaction rates underpin much of what we think we know about the behavior of the deep crust. How certain are these assumptions? One of the best places for testing the accuracy of our assumed, quantified rheologies and reaction rates for continental crust are the giant ultrahigh-pressure (UHP) terranes. These terranes are composed predominantly of quartzofeldspathic gneiss, with only a few percent eclogite and peridotite blocks; as such, they constitute a prime source of information about deformation and phase transformations in continental crust. This contribution uses an unusually large titanite U–Pb dataset (>150 individual samples) to identify quartzofeldspathic crust that was subducted to $T>750$ °C and $P>2.5$ GPa and remained metastable and weakly deformed in spite of large reaction overstepping. This high P and T metastability and strength of continental crust has implications for Earth rheology, tectonics, petrology, geodynamics, geodesy and geophysics. The data also indicate that titanite can remain closed to Pb loss at such conditions, which has significant ramifications for geochronology.

1.1. Flow of the deep crust

Flow of the deep continental crust at high P and T is a central tenet of a broad range of geodynamic models and geologic interpretations involving large-scale crustal flow, such as those that explain the evolution of the Himalaya (e.g., Bird, 1991; Clark and Royden, 2000; Rey et al., 2001; Selverstone, 2005; Beaumont et al., 2006; King et al., 2011) or the diapiric assembly of UHP terranes (e.g., Gerya and Stöckhert, 2006; Ellis et al., 2011; Little et al., 2011). In contrast, depths of earthquakes and inferred plate elastic thickness (Austrheim and Boundy, 1994; Maggi et al., 2000; Jackson et al., 2004, 2008) have been used to conclude the opposite: that in some settings the deep continental crust can be strong and does not flow at relatively high temperature. The controlling factors usually invoked to explain this dichotomy include rock composition, grain size, strain rate, temperature, fluid activity, and/or degree of melting. This study shows that titanite U–Pb dates can be used as a sensitive monitor of the flow of continental crust at high P and T. The results impact our understanding of the rheology of continental crust in general and call into question conclusions based on simple T-dependent rheology models.

1.2. Phase transformations in the deep crust

Large-scale Earth dynamics is driven by buoyancy contrasts (Anderson, 2007). Understanding buoyancy—in particular, "chemical buoyancy" related to mineralogy and phase transformations—relies

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0009-2541/$ – see front matter
http://dx.doi.org/10.1016/j.chemgeo.2012.11.012

on quantifying how the rates of phase transformations depend on intensive parameters (e.g., stress and temperature) and material properties (Rubie and Thompson, 1985; Hacker and Kirby, 1993). Geodynamic models that include phase transformation are forced to make general assumptions about rates (e.g., Sung and Burns, 1976; Behn et al., 2011) or to extrapolate experimental data (e.g., Mosenfelder et al., 2001)—which, in spite of our best efforts, remain uncertain because of an inability to quantify nucleation rates with sufficient precision (e.g., Rubie et al., 1990; Hacker et al., 2005). The common observations of incomplete phase transformations in rocks (e.g., Mørk, 1985; Austrheim, 1987; Koons et al., 1987; Wayte et al., 1989; Hacker, 1996; Engvik et al., 2000; Krabbendam et al., 2000; Lenze and Stöckhert, 2007; Peterman et al., 2009) and the presence of slow waveguides in subducting slabs (e.g., Hori et al., 1985; Abers et al., 1999) are two rather clear indicators that mineral transformation rates in Earth need not follow equilibrium. The factors that influence transformation rate are similar to those listed above for rheology. This study shows that titanite U–Pb dates can be used as a sensitive monitor of phase transformations in continental crust at high *P* and *T*. The results expand our understanding of phase transformations in general, and re-emphasize that models based on chemical equilibrium are only endmember models.

1.3. Titanite closure to Pb

Estimating the whole-grain closure temperature of titanite commenced with the concerted effort to date titanite by thermal-ionization mass spectrometry (TIMS) in the late 1980s (Fig. 1). Tucker et al. (1987, 1990, 2004) and Tucker and Krogh (1988) measured 56 multigrain titanite samples and used the data to define a single U–Pb discordia between ca. 1657 Ma and 395 Ma. They explained this discordia as a result of diffusive Pb loss during a single, short-lived thermal event at 395 Ma, based on titanite textures and because the lower intercept of the discordia is well defined. Other natural titanite datasets (Gromet, 1991; Mezger et al., 1993; Scott and St-Onge, 1995; Corfu, 1996; Pidgeon et al., 1996; Verts et al., 1996), and an experimental study by Cherniak (1993) are in general agreement that cooling at rates of 10–100 K/Myr from temperatures of 700–800 °C should be sufficient to cause measurable Pb loss in titanite as coarse as 2–10 mm, and to cause total Pb loss from 1 mm radius grains heated to 750 °C (Fig. 1). As demonstrated below, our conclusion is that titanite is much more retentive, and can remain closed to Pb for tens of millions of years at length scales of 1 mm and temperatures as high as 750 °C.

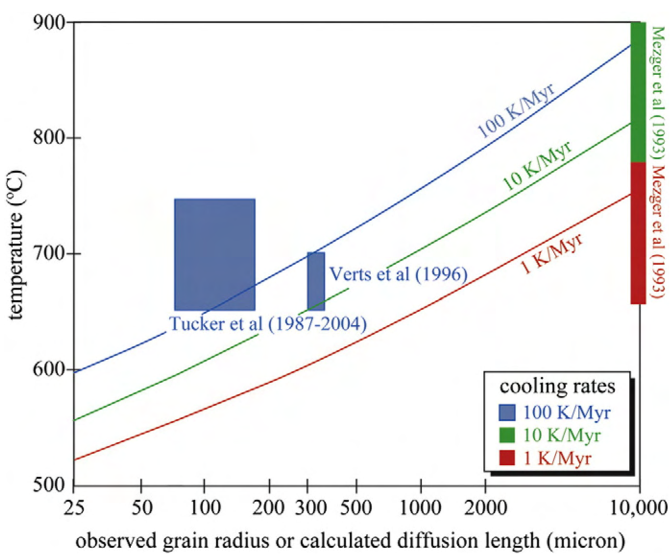

Fig. 1. Titanite closure to Pb diffusion estimated from previous TIMS studies (boxes) and calculated from experiments (lines) of Cherniak (1993). Colors identify 10-fold differences in cooling rates. *Lines* calculated from Cherniak (1993); have experimental uncertainties of roughly −45/+90 °C. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

2. Study area: the Western Gneiss Region

The Western Gneiss Region (WGR) of Norway contains one of Earth's giant ultrahigh-pressure terranes (Fig. 2). Like most well-exposed and extensively investigated UHP terranes, the WGR is dominated by quartzofeldspathic gneiss; eclogite and peridotite comprise only a few volume percent of inclusions within the gneiss. As such, the WGR is typical of the bulk of the continental crust. The quartzofeldspathic gneiss and minor mafic rocks formed chiefly by magmatism at ~1.7–1.6 Ga, 1.2 Ga, and ~970–950 Ma (Corfu and Andersen, 2002; Walsh et al., 2007; Krogh et al., 2011). The eclogites formed from mafic protoliths during subsequent inferred northwestward subduction of the Baltica continental margin (Krogh, 1977; Andersen et al., 1991; Hacker and Gans, 2005). They crop out over an area of ~30,000 km^2 (Hacker et al., 2010) and range in peak metamorphic conditions from ~650 °C and 1.8 GPa near the foreland to ~850 °C and 3.6 GPa (Figs. 2 and 3) in the core of the orogen (see geothermometry reported below and summaries in Cuthbert et al., 2000; Ravna and Terry, 2004; Hacker, 2006). The eclogites recrystallized during the late, Scandian, phase of the Caledonian orogeny, between ~425 and ~400 Ma based on U–Pb zircon, Lu–Hf garnet, Sm–Nd garnet, and Rb–Sr white mica dates (see summary in Glodny et al., 2008; Kylander-Clark et al., 2009; Krogh et al., 2011).

The host gneiss consists almost exclusively of (garnet-) amphibolite-facies minerals with local (garnet-bearing) granulite. U–Pb titanite and Sm–Nd garnet geochronology has revealed that these minerals in the host gneiss are i) Proterozoic in the eastern half of the WGR toward the foreland, and thus predate the UHP metamorphism; and ii) 400–380 Ma in the western, core of the orogen, and formed during the post-UHP exhumation (Tucker et al., 1987, 1990; Johnston et al., 2007; Walsh et al., 2007; Kylander-Clark et al., 2009; Peterman et al., 2009). The peak temperatures of this exhumation-related metamorphism were 650–800 °C, and the exhumation was nearly isothermal (Fig. 3) (Terry et al., 2000; Labrousse et al., 2004; Walsh and Hacker, 2004; Root et al., 2005); new Zr-in-titanite data presented below add measurably to this dataset. $^{40}Ar/^{39}Ar$ muscovite dates are 400 Ma in the eastern WGR and 385–375 Ma in the core of the orogen (Fig. 2) (Hacker et al., 2005; Walsh et al., 2007; Young et al., 2011), and presumed herein to record cooling below ~400–500 °C (Harrison et al., 2009). This relatively extensive geochronologic dataset shows that the (U)HP event endured for 25 Myr and that the post-UHP amphibolite-facies event lasted 10–15 Myr; the total time at temperatures of 650–800 °C was thus 25–40 Myr, depending on location (Fig. 3).

Although there is general agreement that the host gneiss experienced the same (U)HP conditions as the included eclogite blocks, *direct* evidence of that is limited to one non-eclogite gneiss with diamond (Dobrzhinetskaya et al., 1995) and a few locations where the quartzofeldspathic gneiss has quartz pseudomorphs after coesite in garnet or clinozoisite (Wain, 1997; Walsh and Hacker, 2004); *indirect* evidence of local (U)HP recrystallization of the host gneiss includes garnet with Sm–Nd dates similar to those of (U)HP eclogite (Peterman et al., 2009). Quartzofeldspathic gneiss with possible (U)HP *matrix* minerals—such as kyanite, phengite, zoisite, sodic clinopyroxene, or garnet—is restricted to rare domains, generally interlayered with eclogite or in strain shadows around eclogite blocks (Wain, 1997; Cuthbert et al., 2000). The near-total absence of (U)HP minerals in the quartzofeldspathic gneiss requires that either the gneiss did not transform to (U)HP minerals or that all such phases disappeared during

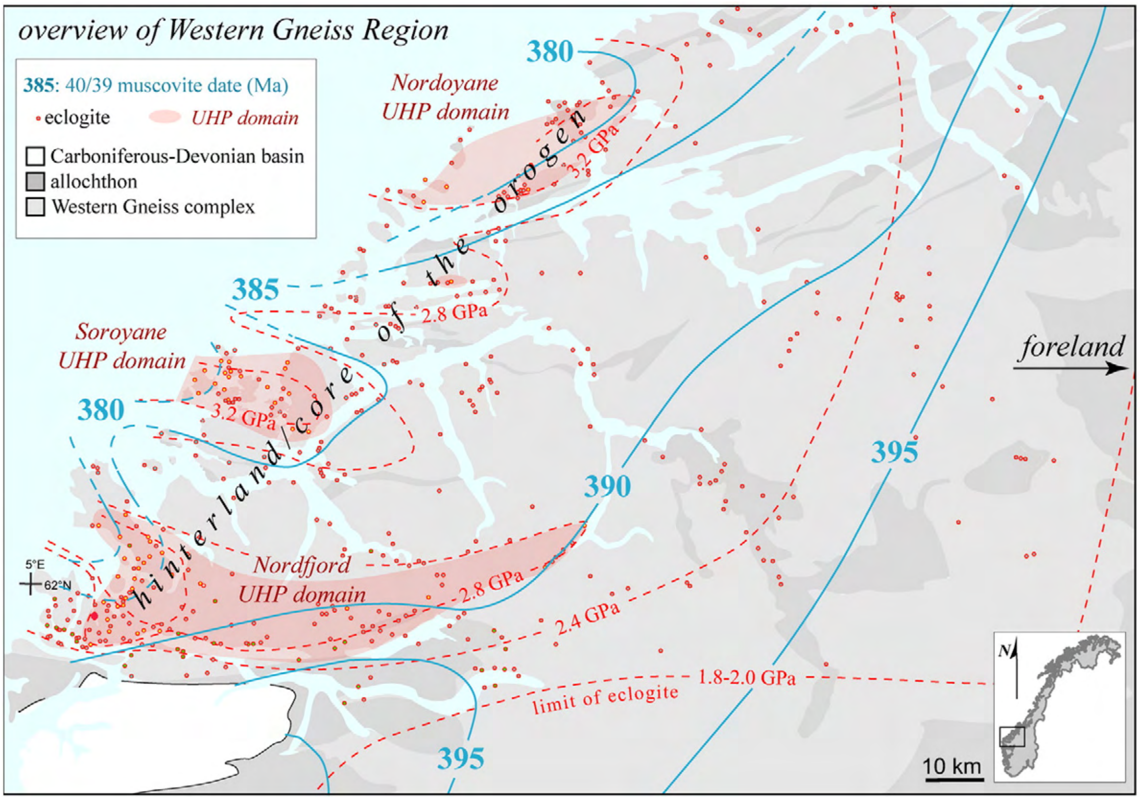

Fig. 2. Overview of the WGR, showing the locations of eclogites (red dots), domains with UHP eclogite (pink), isobars of eclogite recrystallization pressure (red lines), and $^{40}Ar/^{39}Ar$ muscovite dates. Scandian foreland is east of figure. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

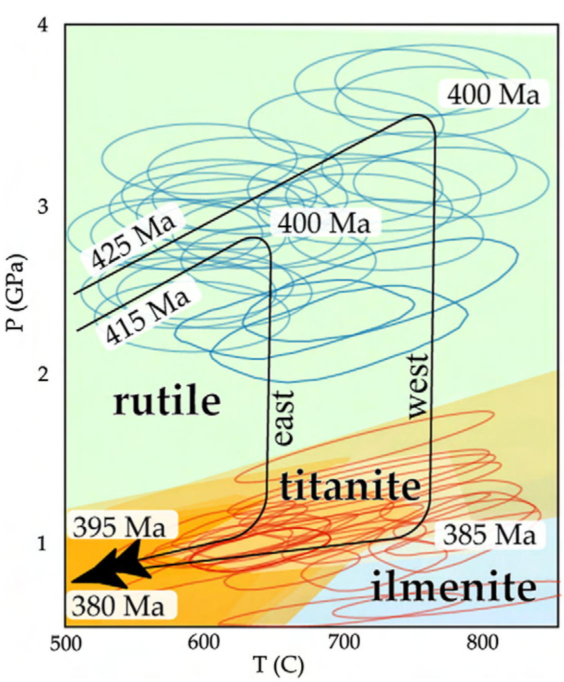

Fig. 3. The WGR was metamorphosed at eclogite-facies conditions of 1.8–3.6 GPa and 650–850 °C (blue ellipses) and then overprinted by amphibolite-facies metamorphism during exhumation (red ellipses). Arrows show possible PT paths. The stability fields of Ti phases calculated for nine WGR gneisses with *Perple_X* are shown. The titanite stability field (orange) emphasizes that all titanites that survived UHP did so metastably. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

exhumation-related overprinting (Krabbendam et al., 2000; Peterman et al., 2009).

2.1. Assessing flow and transformation in gneiss using titanite U–Pb dates

Outcrop-scale structures imply that the eastern half of the WGR underwent weak to minimal deformation during UHP tectonism (Hacker et al., 2010); here we show that titanite dates support this conclusion. Titanite dates are a particularly sensitive indicator of whether continental crust thoroughly transformed to (U)HP minerals or deformed at (U)HP conditions because titanite is not stable in typical quartzofeldspathic gneiss at pressures above ~1.2–1.5 GPa. Pseudosections calculated for eight titanite-bearing gneisses from the WGR (Fig. 3; see Appendix A for details) show that rutile is the stable Ti-phase at high pressure, and ilmenite is the stable Ti-phase at low pressure and high temperature. In six of the eight bulk compositions modeled, titanite is stable at pressures only below 1.3 GPa.

If equilibrium was maintained, all of the *titanite in the gneiss should have converted to rutile* during the (U)HP metamorphism. Deformation of the titanite at UHP would have aided conversion to rutile and would have been accompanied by the deformation of plagioclase and its transformation to denser minerals (e.g., garnet, clinopyroxene, kyanite, zoisite). Any titanite found to have a pre-UHP U–Pb date must therefore not have transformed to rutile and instead remained metastable at UHP conditions. If titanite survived (U)HP metamorphism metastably without reacting to rutile, the main phase in these rocks—plagioclase—must also have been metastable at (U)HP, because the two minerals are coupled by numerous pressure-sensitive net-transfer reactions (Frost et al., 2000; Tropper and Manning, 2008). Such untransformed titanite must also not have been deformed at UHP, and if the titanite was not deformed, it's rather unlikely that the rest of the rock underwent wholesale ductile flow at UHP conditions. The

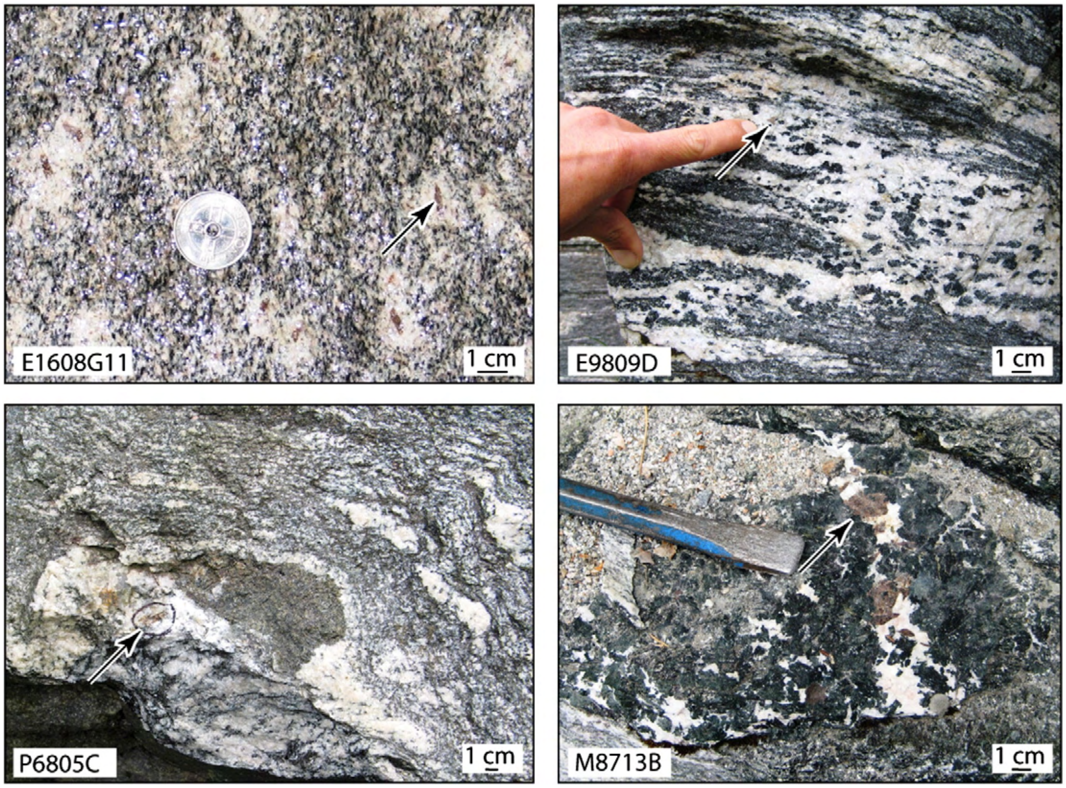

Fig. 4. Outcrop photographs of titanite. E1608G11: Proterozoic titanite surrounded by nondeformed feldspar-rich haloes in granodioritic gneiss. E9809D: Scandian titanite in nondeformed hornblende-plagioclase leucosome. P6805C titanite in deformed, concordant leucosome in biotite-epidote gneiss. M8713B coarse, euhedral titanite in nondeformed leucosome in amphibolite.

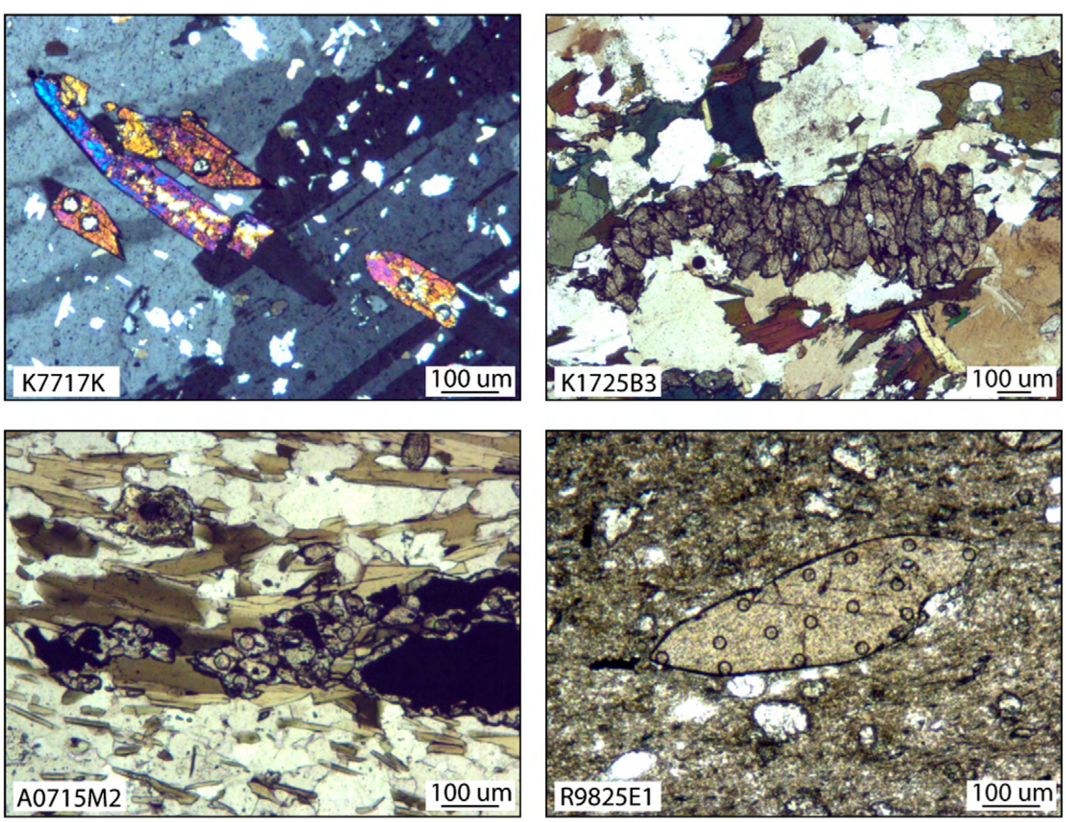

Fig. 5. Titanite textures in thin section. K7717K: ~387 Ma igneous titanite in discordant granitic pegmatite. K1725B3: ~382 Ma deformed titanite in gneiss with numerous subgrains. A0715M2: ~385 Ma dynamically recrystallized titanite grains produced by decomposition of an ilmenite crystal in a mylonite. R9825E1: ~382 Ma titanite porphyroclast in ultramylonite.

alternative—that the rock underwent flow at UHP conditions and the titanite was preserved metastably—would require that the plagioclase transformed to denser phases without reacting with titanite, and that the denser phases all then reacted back to plagioclase without reacting with the titanite.

2.2. Titanite in the Western Gneiss Region

Many different bulk compositions in the WGR contain ~1–3 vol.% titanite (Figs. 4 and 5); biotite-bearing quartzofeldspathic gneiss is the most typical, but titanite is present in amphibolite, eclogite retrogressed to amphibolite, calc-silicate gneiss, biotite–muscovite gneiss, and hornblende-bearing leucosomes. We collected titanite-bearing samples from across the WGR, attempting to obtain good areal coverage (Fig. 6). Six specific types of titanite-bearing rock were sampled: i) granulite or retrogressed granulite, ii) eclogite (partially) retrogressed to amphibolite facies, iii) amphibolite-facies gneiss, iv) amphibolite-facies mylonite or mylonitic gneiss, v) amphibolite-facies veins; vi) deformed—and in the most extreme cases, concordant—leucosomes; and vii) discordant, weakly or nondeformed leucosomes and dikes. The titanite grains are yellow to dark amber in hand sample and colorless to pale brown in thin section. They range from 1 cm to <50 μm in radius, although most of the titanites that we analyzed are 50–1000 μm (Table 1; Fig. 1). Granulites, with garnet and hornblende, typically contain isolated, nondeformed titanite. Titanite dated in retrogressed eclogites is a nondeformed breakdown product of rutile. Leucosomes harbor the coarsest titanite, intergrown with feldspar and hornblende (Fig. 4). Titanite in mylonites, gneisses, and concordant leucosomes may be strongly deformed polycrystals or porphyroclasts (Fig. 5).

The relative age of titanite with respect to the (U)HP metamorphism is clear in some outcrops from field relationships: neoblastic titanite in i) retrogressed eclogite (e.g., samples 8829A2, E9808I, E9809G1, E1612D1, E1612I2, P6805B3, and R9823A1), ii) leucosomes in eclogite strain shadows (A0717M3, A0720B1), and iii) leucosomes that transect eclogite- or amphibolite-facies fabrics, must be younger than the eclogite. Many titanite grains within the typical high-grade, well-foliated quartzofeldspathic gneiss, however, have ambiguous relationships with respect to the eclogite-facies metamorphism: they could be older or younger.

The relative age of titanite—and whether it is of metamorphic or igneous origin (or both)—can be difficult to judge from thin-section textures because nearly all titanite are subhedral/subidioblastic elongate grains aligned parallel to the foliation: in other words, not definitive. Rutile, quartz, plagioclase, biotite, and allanite occur as inclusions in titanite, but could have formed before or after the (U)HP metamorphism. Rare samples preserve clear textural evidence of titanite growth concomitant with rutile breakdown (e.g., A0718F, E9806G1, E9808I, E1612D1, E1612I2, G9709K1, P6826I1) or ilmenite breakdown (A0715M2, E9808H, E1612D1, E1612F, G9709K1, J5813I3, J5814N3, K1727C1, K1802J1, P5627D1, P5627K4, R9823A1, R9824B4, Y1526A); the rutile or ilmenite hosts could be Precambrian or Caledonian, but it happens that all but one such titanite are exclusively Caledonian

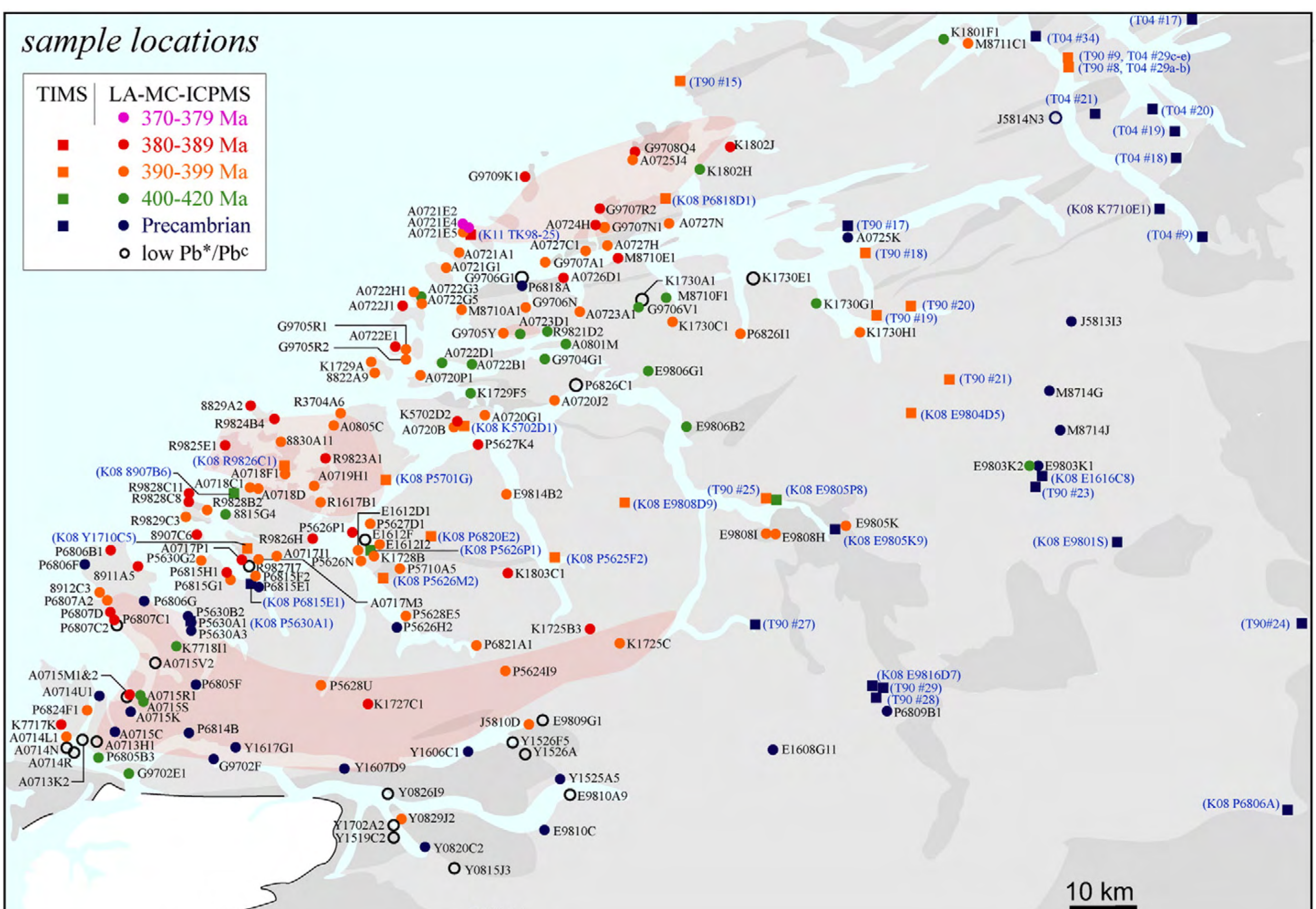

Fig. 6. Locations and identifiers of titanite samples measured in this and previous studies (K08, Kylander-Clark et al. (2009); K11, Krogh et al. (2011); T90, Tucker et al. (1990); T04, Tucker et al. (2004)).

Table 1
Sample names, rock types, and titanite textures. Pb*, radiogenic lead; Pb^c, common lead.

8815G4	Gurskøya; garnet–hornblende gneiss. Titanite 200 μm subhedral metamorphic matrix phase. 408 Ma former granulite
8822A9	Godøy; concordant biotite–hornblende pegmatite. Titanite 100 μm subhedral phase. 401 Ma
8829A2	Runde; clinopyroxene–hornblende–biotite amphibolite (retrogressed eclogite). Titanite 50 μm subhedral. 389 Ma
8830A11	Remøyholmen; perthite–biotite mylonite with amphibolite-facies fabric. Titanite 50–200 μm anhedral, rotated by amphibolite-facies fabric. 391 Ma
8907C6	Voksa; garnet–zoisite–diopside calc-silicate gneiss. Titanite subhedral–euhedral, 200–400 μm. 384 Ma
8911A5	Stadlandet; fine-grained, annealed mylonite. Titanite 50 μm, subhedral, synkinematic, rutile inclusions. 386 Ma
8912C3	Stadlandet; coarse-grained hornblendite. Titanite 100 μm, subhedral; includes inherited, Precambrian component. 397 Ma
A0713H1	Måløy; single 5 mm titanite porphyroclast in biotite–hornblende gneiss. Low Pb^*/Pb^c ratio.
A0714L1	Husevågøy; single 10 mm titanite in hornblende–biotite–epidote gneiss. 392 Ma.
A0714N1	Husevågøy; single 5 mm titanite in hornblende–biotite–epidote gneiss. Low Pb^*/Pb^c ratio.
A0714R	Husevågøy; single 10 mm titanite in hornblende–biotite–epidote gneiss. Low Pb^*/Pb^c ratio.
A0714U1	Vågsøy; K-feldspar–biotite gneiss with weak amphibolite-facies fabric. Titanite 100 μm subhedral with rutile inclusions and darker anhedral grains to 200 μm. Titanite includes inherited, Precambrian component.
A0715C1	Sørpollen; single 1500 μm titanite in discordant leucosome in biotite–K-feldspar gneiss.
A0715K	Nordpollen; biotite–zoisite gneiss. Titanite 100 μm anhedral; associated with zoisite. Low Pb^*/Pb^c ratio.
A0715M1	Venøya; transposed granite pegmatite with porphyroclastic amphibolite-facies fabric. Titanite 100–200 μm anhedral; associated with ilmenite. Low Pb^*/Pb^c ratio.
A0715M2	Venøya; partly annealed mylonitic K-feldspar–biotite gneiss. Titanite 75 μm anhedral polygonized rims on ilmenite. 385 Ma
A0715R1	Flister; hornblende–epidote gneiss. Titanite 200 μm anhedral; with rutile inclusions. 396 Ma
A0715S	Flister; biotite gneiss. Titanite 200 μm euhedral. ~412 Ma
A0715V2	Selje; biotite gneiss. Titanite 100 μm subhedral. Low Pb*/Pbc ratio.
A0716A1	Stadlandet; biotite gneiss.
A0717J1	S Gurskøya; deformed, concordant hornblende–plagioclase–titanite leucosome. Titanite 200 μm, anhedral. 395 Ma
A0717M3	S Gurskøya; gray hornblende-bearing leucosome in eclogite strain shadows. Titanite 100 μm subhedral polycrystalline aggregates. 397 Ma
A0717P1	Gurskøya; single 500 μm titanite in deformed hornblende–plagioclase leucosome. 388 Ma.
A0718C1	Gurskøya; single 2 mm titanite in biotite gneiss. 398 Ma.
A0718D	Gurskøya; single 1.5 mm titanite in biotite gneiss. ~389 Ma.
A0718F1	Blankholmen; single 500 μm titanite rim on rutile in gneiss. 395 Ma.
A0719H1	Dimnøya; discordant, deformed hornblende–plagioclase–titanite leucosome. Titanite 200 μm, strongly resorbed, anhedral. 395 Ma
A0720B1	Sula; single 2 mm titanite in eclogite boudin-neck leucosome. 399 Ma.
A0720C1	Sula; calc-silicate gneiss. Titanite 100 μm, euhedral, unoriented.393 Ma
A0720G1	Sula; single 2 mm titanite in deformed hornblende–plagioclase boudin-neck leucosome. 399 Ma.
A0720J2	Magerholm; syn-amphibolite-facies, <1 cm granitic leucosomes in biotite amphibolite. Titanite 100–200 μm anhedral veinlets in hornblende. 393 Ma.
A0720P1	Ålesund; single 2 mm titanite in weakly deformed hornblende–plagioclase leucosome. 393 Ma.
A0721A1	Haramsøya; concordant plagioclase–hornblende leucosome. Titanite 100–300 μm, subhedral–euhedral. 392 Ma.
A0721E2	Flemsøya; biotite–hornblende gneiss immediately adjacent to eclogite. Titanite 200 μm, subhedral–euhedral. 372 Ma
A0721E4	Flemsøya biotite–hornblende host gneiss; Titanite 200 μm, anhedral with rutile, biotite, and allanite inclusions. 377 Ma
A0721E5	Flemsøya; single 1 mm titanite in undeformed discordant, pegmatite causing garnet breakdown in host gneiss. 403 Ma.
A0721G1	Lepsøya; K-feldspar–hornblende gneiss with strong planar fabric. Titanite 100–500 μm, subhedral. 400 Ma
A0722B1	Ellingsøya; single 1 mm titanite in deformed, concordant hornblende–plagioclase leucosome. 404 Ma.
A0722D1	Ellingsøya; single 1 mm titanite in K-feldspar augen gneiss. Titanite includes inherited, Precambrian component. 400 Ma.
A0722E1	Giske; hornblende–biotite gneiss with strong amphibolite-facies fabric ("mylonitic"). Titanite 300 μm subhedral, weak undulatory extinction and mechanical twins; includes inherited, Precambrian component. 385 Ma
A0722G3	Vigra; single 400 μm titanite in sheared hornblende–plagioclase–K-feldspar–garnet gneiss surrounding boudin. 402 Ma.
A0722G5	Vigra; single 800 μm titanite in deformed, concordant hornblende–plagioclase leucosome. 400 Ma.
A0722H1	Vigra; single 300 μm titanite in garnet–biotite–hornblende–plagioclase 'Blåhø' gneiss. 393 Ma.
A0722J1	Vigra; granite mylonite. Titanite 150 μm, anhedral, with rutile inclusions. 385 Ma
A0723A1	Vatne; biotite–hornblende gneiss with weak amphibolite-facies deformation. Titanite 200–600 μm, subhedral; includes inherited, Precambrian component. 394 Ma.
A0723D1	S Brattvåg; single 1 mm titanite in biotite gneiss. 401 Ma.
A0724H	Otrøy; single 2 mm titanite in deformed hornblende–plagioclase pegmatite. 384 Ma.
A0725G1	Gossa; plagioclase–hornblende leucosome in retrogressed eclogite.
A0725J4	Gossa; calc-silicate gneiss. Titanite 500 μm, anhedral. 391 Ma
A0725K	E of Molde; single 500 μm titanite in hornblende–biotite gneiss. Titanite includes inherited, Precambrian component. 413 Ma.
A0726D1	Brattvåg; biotite gneiss with strong amphibolite-facies fabric ("mylonitic"). Titanite 150 μm, subhedral; includes inherited, Precambrian component. ~388 Ma
A0727C1	Midøya; amphibolite with strong amphibolite-facies fabric. Titanite 100 μm subhedral porphyroclasts. 397 Ma
A0727H1	Otrøy; single 300 μm titanite in biotite–hornblende gneiss. Titanite includes inherited, 434 Ma component. 403 Ma.
A0727N1	Otrøy; K-feldspar augen gneiss with strong amphibolite-facies deformation. Titanite, 200 μm, euhedral–subhedral with brown rims and local mechanical(?) twins. 396 Ma
A0801M	Ellingsøya; single 2 mm titanite in biotite–K-feldspar gneiss. 405 Ma.
A0805C1	Hareidlandet; single 500 μm titanite in biotite gneiss. 395 Ma.
E9803K1	E Romsdal; single 500 μm titanite in hornblende–plagioclase gneiss. Includes inherited, Precambrian component.
E9803K2	E Romsdal; hornblende–biotite gneiss. Titanite 100–700 μm; euhedral with many inclusions. Low Pb^*/Pb^c ratio.
E9804D12	Trollstigen; biotite gneiss.
E9805K	Tafjord; garnet–hornblende gneiss (former granulite?). Titanite 100–150 μm, anhedral, some included in hornblende; includes inherited, Precambrian component. 390 Ma.
E9806B2	Stordal; concordant leucosome in biotite–hornblende gneiss. Titanite 700 μm. 403 Ma
E9806G	Sjøholt; amphibolite with strong amphibolite-facies deformation. Titanite 100–200 μm subhedral, rotated and bent (pre-kinematic). 404 Ma
E9808H	Tafjord; hornblende–biotite gneiss. Titanite 75 μm, anhedral, polycrystalline rims on ilmenite. 391 Ma
E9808I	Tafjord; non-deformed, retrogressed eclogite. Titanite 50 μm, anhedral, polycrystalline rims on rutile. 389 Ma
E9809G1	Hornindal; retrogressed eclogite. Titanite 200 μm anhedral rims on rutile. Low Pb^*/Pb^c ratio.
E9810A9	Indre Nordfjord; muscovite–biotite gneiss with weak amphibolite-facies shear bands. Titanite 150 μm, subhedral–euhedral. Low Pb^*/Pb^c ratio.
E9810C1	Indre Nordfjord; K-feldspar augen gneiss with moderate amphibolite-facies fabric. Titanite 300 μm subhedral, brown, local twins. ~982 Ma
E9814B2	Hjørundfjord; biotite–garnet amphibolite. Titanite 100 μm anhedral, resorbed. 396 Ma
E9816F2	Grotli; amphibolite.
E9817A5	Grotli; hornblende–biotite gneiss.
E9819D2	Grotli; retrogressed eclogite.
E1608G11	Strynfjellet tunnel; single 2 mm titanite from discordant granodioritic gneiss. ~967 Ma
E1612D1	W Ørstafjord; retrogressed eclogite. Titanite 100–200 μm anhedral rims on rutile and ilmenite; clearly post-eclogite. 392 Ma
E1612F	E Ørstafjord; hornblende–biotite mylonitic gneiss. Titanite 50 μm anhedral laths in alteration of ilmenite. Low Pb^*/Pb^c ratio.
E1612I2	E Ørstafjord; retrogressed eclogite. Titanite 200 μm anhedral rims on rutile. 392 Ma

E1626E	Grotli; garnet amphibolite.
G9702E1	Rugsundøya; biotite–epidote gneiss with moderate amphibolite-facies deformation. Titanite 100 μm subhedral. 416 Ma incomplete resetting
G9702F	S Nordfjord; biotite–epidote gneiss with strong amphibolite-facies fabric. Titanite abundant, 300 μm, subhedral, twinned, brown, pre-kinematic. Low Pb^*/Pb^c ratio. ~950 Ma
G9704G1	Uksenøya; single 3 mm titanite in deformed, concordant hornblende–plagioclase leucosome. 400 Ma.
G9705R1	Valderøy; single 2 mm titanite in concordant hornblende–plagioclase leucosome. 402 Ma.
G9705R2	Valderøy; 'Blåhø' garnet–biotite gneiss with amphibolite-facies shear bands. Titanite 100–200 μm, subhedral, porphyroclasts in matrix and in garnet. 412 Ma
G9705Y1	Brattvåg; single 1 mm titanite in biotite–hornblende gneiss. 389 Ma.
G9706G1	Brattvåg; ultramylonite. Titanite 150 μm anhedral porphyroclasts. Low Pb^*/Pb^c ratio.
G9706N1	Brattvåg; hornblende–biotite gneiss with amphibolite-facies shear bands. Titanite 50–100 μm subhedral porphyroclasts. Includes inherited, Precambrian component. 393 Ma
G9706V1	Tomrefjorden; syenite gneiss. Titanite 400 μm. Includes inherited, Precambrian component. 394 Ma.
G9707A1	Dryna; garnet–diopside amphibolite with lower amphibolite-facies deformation and retrogression. Titanite 200–400 μm, abundant, twinned, brown, in matrix and garnet. 394 Ma
G9707N1	Otrøy; retrogressed eclogite.
G9707R2	Otrøy; strongly deformed, migmatitic hornblende–K-feldspar gneiss. Titanite 100–200 μm, anhedral. 379 Ma
G9708Q4	Gossa; single 1 cm titanite in biotite gneiss. 380 Ma.
G9709K1	Harøy; concordant, deformed garnet–hornblende–rutile leucosome. Titanite 100–200 μm, anhedral, rimming rutile and ilmenite. 385 Ma
J5810D	Hornindal; fine-grained biotite–epidote gneiss. Titanite 100 μm anhedral. Includes inherited, Precambrian component. 390 Ma
J5813I3	Eikesdalen; annealed mylonitic garnet–biotite K-feldspar augen gneiss. Titanite 100 μm anhedral rims on ilmenite. Includes inherited, Precambrian component. Low Pb^*/Pb^c ratio.
J5814N3	Tingvoll; garnet amphibolite. Titanite 100 μm anhedral rims on ilmenite. Low Pb^*/Pb^c ratio.
K1725B3	Norangsdalen; hornblende–biotite gneiss with post-eclogite facies fabric. Titanite 100 μm subhedral polycrystalline aggregates. 382 Ma
K1725C	Hellesylt; hornblende–biotite gneiss. Titanite 100 μm subhedral polycrystalline aggregates. 390 Ma
K1727C1	Store Toren; biotite–epidote–ilmenite vein. Titanite 100 μm euhedral rims on ilmenite. 383 Ma.
K1729A1	Gødøya. 2 mm single crystal from concordant leucosome. 396 Ma
K1730A1	Tomrefjorden; biotite–epidote granodiorite gneiss. Titanite 200 μm. Low Pb^*/Pb^c ratio. Includes inherited, Precambrian component.
K1730C1	Tomrefjorden; concordant leucosome in hornblende–biotite granodiorite gneiss. Titanite 1200 μm. 394 Ma
K1730E1	Vestnes; concordant leucosome in biotite-bearing granodiorite gneiss. Titanite 200 μm. Low Pb^*/Pb^c ratio.
K1730G1	Vestnes; hornblende–biotite granodiorite gneiss. Titanite 200 μm. 403 Ma
K1730H1	Innfjorden; concordant leucosome in biotite-bearing granodiorite gneiss. Titanite 800 μm. 391 Ma
K1801F1	Ikornes. 2 mm single crystal from leucosome discordant to eclogite. 397 Ma
K1802H1	Hollingsholmen; hornblende–biotite granodiorite gneiss. Titanite 600 μm. 401 Ma
K1802J1	N of Molde; leucocratic biotite–hornblende gneiss. Titanite 100–150 μm subhedral rims on ilmenite. 380 Ma
K1803A1	Stranda; hornblende–biotite gneiss.
K1803C1	Hjørundfjord; hornblende–biotite–titanite gneiss. Titanite 100–200 μm, euhedral. 385 Ma
K5702D2	Sula; hornblende–biotite gneiss. Titanite 200 μm subhedral; twinned with biotite inclusions. 389 Ma
K7717K	Vågsøy; discordant epidote-bearing granitic pegmatite. Titanite 100 μm euhedral igneous grains. 385 Ma
K7718I1	Stadlandet; biotite–epidote gneiss. Titanite 100–200 μm subhedral. 408 Ma.
K7718I2	Stadlandet; biotite–epidote gneiss. Titanite 1 mm subhedral.
M8710A1	Bjornøy; hornblende–epidote–biotite gneiss with amphibolite-facies shear bands. Titanite subhedral–euhedral 200–400 μm; pre-kinematic. 394 Ma
M8710E1	Rekdal; K-feldspar ultramylonite. Titanite abundant 75 μm, anhedral. 389 Ma
M8710F1	Vestnes; single titanite in biotite gneiss.
M8711C1	Bergsøya; single 1.5 mm titanite in hornblende–biotite gneiss. 399 Ma.
M8714G	Mardalsvoss; single 500 μm titanite in hornblende–biotite gneiss. Includes inherited, Precambrian component. Low Pb^*/Pb^c ratio.
M8714J1	Romsdal; single 500 μm titanite in hornblende–plagioclase leucosome. Low Pb^*/Pb^c ratio.
P5624I9	Austrefjord; biotite–K-feldspar gneiss. Titanite abundant 150 μm euhedral–anhedral. 394 Ma
P5626H2	Austrefjord; biotite–K-feldspar gneiss. Titanite 400 μm, with subgrains around rims; associated with ilmenite. Includes inherited, Precambrian component.
P5626N	Ørsta; discordant granitic leucosome in biotite–epidote gneiss. Titanite 200 μm anhedral. 392 Ma
P5626P1	Ørsta; garnet–pyroxene amphibolite. Titanite 200–600 μm subhedral; rare rutile inclusions. 383 Ma
P5627D1	Vartdal; garnet–zoisite–biotite gneiss. Titanite 100–200 μm anhedral rims on ilmenite. 400 Ma
P5627K4	Ytre Storfjord; hornblende–biotite gneiss. Titanite 200–400 μm anhedral matrix grains and rims on ilmenite. 388 Ma
P5628E5	Austrefjord; leucocratic biotite mylonite. Titanite 50–100 μm, subhedral. ~388 Ma
P5628U1	Dalsfjord; biotite gneiss. Titanite 200 μm, anhedral; locally polycrystalline. 395 Ma
P5629A3	Ørsta; weakly deformed biotite–K-feldspar gneiss. Titanite 150–200 μm, anhedral, resorbed. 398 Ma
P5630A1	Fiskå; garnet–hornblende–biotite gneiss. Abundant 200 μm, subhedral titanite; some included in garnet. Includes inherited, Precambrian component. Low Pb^*/Pb^c ratio.
P5630A3	Fiskå; garnet–hornblende–biotite gneiss. Titanite 100 μm, anhedral titanite; some included in garnet. Low Pb^*/Pb^c ratio.
P5630B2	Fiskå; single 3 mm titanite in biotite-rich horizon in gneiss. Low Pb^*/Pb^c ratio.
P5630G2	Åram; single 1 cm titanite in undeformed, discordant hornblende–plagioclase leucosome. 400 Ma
P5701G	Hareidlandet. Titanite vein.
P5710A5	Ørsta; concordant leucosome from hornblende–biotite gneiss. Titanite 300 μm. 398 Ma.
P6805B3	Måløy; biotite–epidote gneiss formed by eclogite retrogression. Titanite 100–200 μm anhedral, some included in epidote. 397 Ma
P6805C	Måløy; single 5 mm titanite in deformed, concordant leucosome in biotite–epidote gneiss. Low Pb^*/Pb^c ratio.
P6805F	Kjødspollen; single 500 μm titanite in biotite gneiss. Low Pb^*/Pb^c ratio.
P6806B1	Stadlandet; hornblende–biotite gneiss. Titanite, 100 μm, euhedral–anhedral. 383 Ma
P6806F1	Stadlandet; biotite–zoisite gneiss. Titanite 150 μm, subhedral, recrystallized. Includes inherited, Precambrian component. Low Pb^*/Pb^c ratio.
P6806G	Stadlandet; biotite–K-feldspar gneiss. Low Pb^*/Pb^c ratio.
P6807A2	Stadlandet; biotite–zoisite symplectite gneiss. Titanite 150 μm, subhedral. 393 Ma
P6807C1	Fure; hornblende–biotite mylonitic gneiss. Titanite 100–200 μm, euhedral. Low Pb^*/Pb^c ratio.
P6807C2	Fure; biotite–epidote mylonitic gneiss. Titanite 100 μm, euhedral. 384 Ma
P6807D	Fure; garnet–zoisite mylonitic gneiss. Titanite 200–300 μm, subhedral. 377 Ma
P6809B1	Strynfjellet; single titanite in hornblende–biotite gneiss. Low Pb^*/Pb^c ratio.
P6814B	Maurstad; biotite gneiss. Titanite 100–200 μm subhedral. Includes inherited, Precambrian component.
P6815E1	Koparneset; garnet–hornblende–zoisite gneiss. Titanite 100–200 μm, some included in garnet and zoisite. Low Pb^*/Pb^c ratio. Includes inherited, Precambrian component.
P6815F2	Koparneset; single 1 mm titanite in deformed, concordant hornblende–plagioclase leucosome. 390 Ma.
P6815G1	Koparneset; single 500 μm titanite in deformed, concordant hornblende–plagioclase leucosome. 397 Ma.
P6815H1	Koparneset; single titanite in biotite-rich layer in gneiss. Low Pb*/Pbc ratio.
P6817A1	Vigra; hornblende–biotite–scapolite gneiss. Titanite 200–600 μm subhedral–anhedral; some included in hornblende. ~384 Ma
P6818A1	Brattvåg; single titanite in gneiss with strong amphibolite-facies deformation. Titanite 1000 μm anhedral porphyroclasts. Includes inherited, Precambrian component. Low Pb^*/Pb^c ratio.
P6821A1	Austefjord; biotite gneiss with amphibolite-facies shear bands. Titanite 200 μm, euhedral. 394 Ma

(continued on next page)

Table 1 (*continued*)

P6824F1	Vågsøy; muscovite–garnet gneiss with amphibolite-facies shear bands. Titanite subhedral, 200 μm porphyroclasts. 388 Ma
P6826C1	Uksenøya; single titanite in deformed, concordant hornblende–plagioclase leucosome. Low Pb^*/Pb^c ratio.
P6826I1	Tresfjord; single 1 mm titanite rim on rutile in deformed, concordant hornblende–plagioclase leucosome. 401 Ma.
R9821D2	SE Brattvåg; single 400 μm titanite in hornblende–biotite gneiss. Includes inherited, Precambrian component. 400 Ma.
R9823A1	Ulsteinvik; eclogite overprinted by garnet granulite; moderate amphibolite-facies fabric. Subhedral 200 μm titanite rimmed by ilmenite. 388 Ma
R9823F	Hareidlandet; single 2 mm titanite in biotite–K-feldspar gneiss. Low Pb*/Pbc ratio.
R9824B4	Runde; hornblende–K-feldspar amphibolite-facies mylonite. Titanite 200 μm subhedral rims on ilmenite. 384 Ma.
R9825E1	Nerlandsøya; quartzofeldspathic ultramylonite. Titanite 100–200 μm anhedral twinned porphyroclasts. 382 Ma
R9826H	Gurskøya; annealed mylonitic hornblende–plagioclase gneiss. Titanite 50 μm anhedral, rare grains. 385 Ma
R9827I7	Gurskøya; garnet–hornblende–biotite 'Blåhø' gneiss. Titanite, subhedral, 150–200 μm, biotite inclusions; included in hornblende. Low Pb^*/Pb^c ratio.
R9828B2	Sandsøya; statically recrystallized hornblende–biotite granite mylonite. Titanite 100–150 μm anhedral porphyroclasts. 390 Ma.
R9828C8	Sandsøya; zoisite + garnet + hornblende + clinopyroxene + plagioclase + quartz boudin-neck leucosome. Titanite 200 μm, anhedral, deformed. 382 Ma
R9828C11	Sandsøya; biotite granitic mylonite. Titanite 50–200 μm anhedral. 379 Ma
R9829C3	Sandsøya; biotite gneiss with amphibolite-facies shear bands. Titanite 100–200 μm subhedral porphyroclasts with rutile inclusions. 392 Ma
R1617B1	Gurskøya; sillimanite gneiss. Titanite 100 μm subhedral–euhedral. 388 Ma
R3704A6	Gurskøya; hornblende dioritic gneiss. Titanite 100 μm subhedral–euhedral. 390 Ma
Y0814E3	Breimsvatnet; biotite–epidote schist. Amphibolite-facies protomylonitic fabric. Titanite 250–1500 μm, red–brown subhedral–anhedral porphyroclasts; some twinned. 968 Ma
Y0815J3	Breimsvatnet; biotite–epidote quartzite with recrystallized amphibolite-facies mylonitic fabric. Titanite 50–250 μm euhedral clots. Low Pb^*/Pb^c ratio.
Y0820C2	Sandane; garnet–biotite–epidote gneiss. Moderate amphibolite-facies fabric. Titanite 50–250 μm subhedral–euhedral. Low Pb^*/Pb^c ratio.
Y0826I9	Lote; biotite–epidote gneiss with strong amphibolite-facies fabric. Titanite rare, 50 μm, anhedral. Low Pb^*/Pb^c ratio.
Y0829J2	Sandane; mylonitic muscovite schist. Titanite 175 μm euhedral inclusions in muscovite.
Y1519C2	Gloppenfjord; massive garnet amphibolite. Clots and trains of <100 m euhedral titanite grains. Low Pb^*/Pb^c ratio.
Y1525A5	Indre Nordfjord; biotite–epidote gneiss with strong amphibolite-facies fabric. Titanite 200–300 μm, brown, twinned. Low Pb^*/Pb^c ratio.
Y1526A	Hornindal; deformed biotite granitic pegmatite. Titanite 50 μm subhedral grains rim ilmenite. Low Pb^*/Pb^c ratio.
Y1526F5	Hornindal; biotite–epidote–muscovite gneiss. Titanite subhedral 150 μm. Low Pb^*/Pb^c ratio.
Y1606C1	Hornindal; biotite–epidote gneiss. Titanite 250–500 μm brown subhedral porphyroclasts and 100 m euhedral grains. Includes inherited, Precambrian component. Low Pb^*/Pb^c ratio.
Y1607D9	Nordfjordeid; biotite–epidote gneiss with amphibolite-facies shear bands. Titanite 150–300 μm, brown, twinned. Low Pb^*/Pb^c ratio.
Y1617B5	Stårheim; biotite–epidote gneiss. Titanite subhedral 100 μm. 407 Ma
Y1617G1	Ervik; garnet–allanite granulite gneiss. Titanite 150 μm subhedral; some included in garnet. Includes inherited, Precambrian component.
Y1702A2	Gloppenfjord; albite–biotite–clinozoisite schist. Moderate amphibolite-facies fabric. Titanite 250–400 μm brown subhedral porphyroblasts; some twinned. Low Pb^*/Pb^c ratio.
Y1710C5	Gurskøya; hornblende–biotite gneiss. Titanite 5 mm anhedral in hornblende–plagioclase leucosome.

(see below). Rare samples contain titanite porphyroclasts (8830A11, A0727C1, E9806G1, G9706G1, G9706N1, M8710E1), polygonized titanite (A0715M2, A0717M3, E9803K2, E9808H, K1725B3, K1725C, P5626H2, P5628U, P6806F1), mechanically twinned titanite (A0722E1, A0727N1, K5702D2), or otherwise deformed titanite (8911A5, A0727C1, A0727N1); such grains have chiefly Caledonian ages, but some preserve inherited components. Titanite is an uncommon inclusion in garnet (G9705R2, G9707A1, P5630A1, P5630A3, P6815E1, Y1617G1), hornblende (E9805K, P6817A1, R9827I7), and zoisite/epidote (P6805B3, P6815E1).

2.2.1. Zr-in-titanite thermometry

Considerable thermobarometry has been done on the WGR, but much of it has been on eclogite or on minerals of unknown age. To build a larger quantitative database of temperatures experienced by the WGR quartzofeldspathic rocks, we used electron-probe microanalysis (EPMA) to measure Zr in titanite (Figs. 6 and 7; Table 1; Appendix A), and the calibration of Hayden et al. (2008) to calculate temperature. The pressure was assumed to be 1 GPa, based on Terry et al. (2000), Labrousse et al. (2004), Walsh and Hacker (2004), and Root et al. (2005); pressures calculated in those papers range from 0.5 to 1.5 GPa, but have a Tukey's biweight mean of 1.0 ± 0.1 GPa (95% C.I.). The range and uncertainty about the mean introduce temperature uncertainties of ±53 °C or ±11 °C, respectively. All of the rocks contain quartz, but few contain rutile, in which case the quoted temperatures, calculated assuming $a_{TiO_2} = 1$, are maxima; note that rocks with ilmenite likely have $a_{TiO_2} > 0.8$ (Chambers and Kohn, 2012), in which case the Zr-in-titanite temperature is too hot by <15 °C. In an attempt to reflect this uncertainty, we assigned a minimum 1σ uncertainty of 15 °C to each datum. The dataset for each sample was examined for subpopulations using the Sambridge and Compston (1994) unmixing algorithm implemented in *Isoplot* (Ludwig, 2008); if the data describe a single population, Tukey's biweight mean is reported (Appendix A). The temperatures were assigned a Proterozoic or Paleozoic age based on the U–Pb date of the titanite if available (realizing that diffusivities of Pb and Zr in titanite are different—but see Kramers et al. (2009); if the date of the titanite is unknown, assignment of the temperature to Proterozoic or Paleozoic was based on nearby titanite with similar Zr contents (these samples are marked by "?" in Fig. 7).

2.2.2. Geochronology

More than one hundred samples were dated in this study (Tables 1, 2 and 3; Fig. 6; Appendix A) using analytical techniques described in Appendix A; eight were analyzed by isotope-dilution thermal ionization mass spectrometry (ID-TIMS) (Table 2), and the rest by laser-ablation multicollector inductively coupled plasma mass spectrometry (LA-MC-ICPMS) (Table 3). Most of the samples dated by LA-MC-ICPMS were analyzed in thin section; several dozen large titanite crystals plucked whole from outcrops were analyzed in epoxy grain mounts. In each case, multiple spots from different titanite grains or grain fragments were dated. As explained in Appendix A, titanite dates determined by this method have an uncertainty of 2%. Titanite in ~15% of the samples has radiogenic-Pb/common-Pb ratios too low to generate meaningful dates, but those samples are included in Table 1 for completeness.

3. Results

3.1. Thermometry

Samples with Proterozoic titanite (see below) returned Zr-in-titanite temperatures of ~785–835 °C (red data, Fig. 7), consonant with their igneous or amphibolite- to granulite-facies mineralogy (recall that these were calculated assuming unit titania activity and a pressure of 1 GPa). Other samples with zoned titanite that *might* be Proterozoic ("?" in Fig. 7; see below) gave generally similar temperatures. There is no spatial relationship to the temperatures, implying that the peak Proterozoic (re) crystallization was everywhere of similar temperature. As noted above, our inability to know metamorphic pressure in each sample to better than ~1.0 ± 0.5 GPa lends a potential uncertainty of ±53 °C to each measurement (although most samples will have an uncertainty closer to ± 11 °C); samples without rutile may be too hot by ~15 °C.

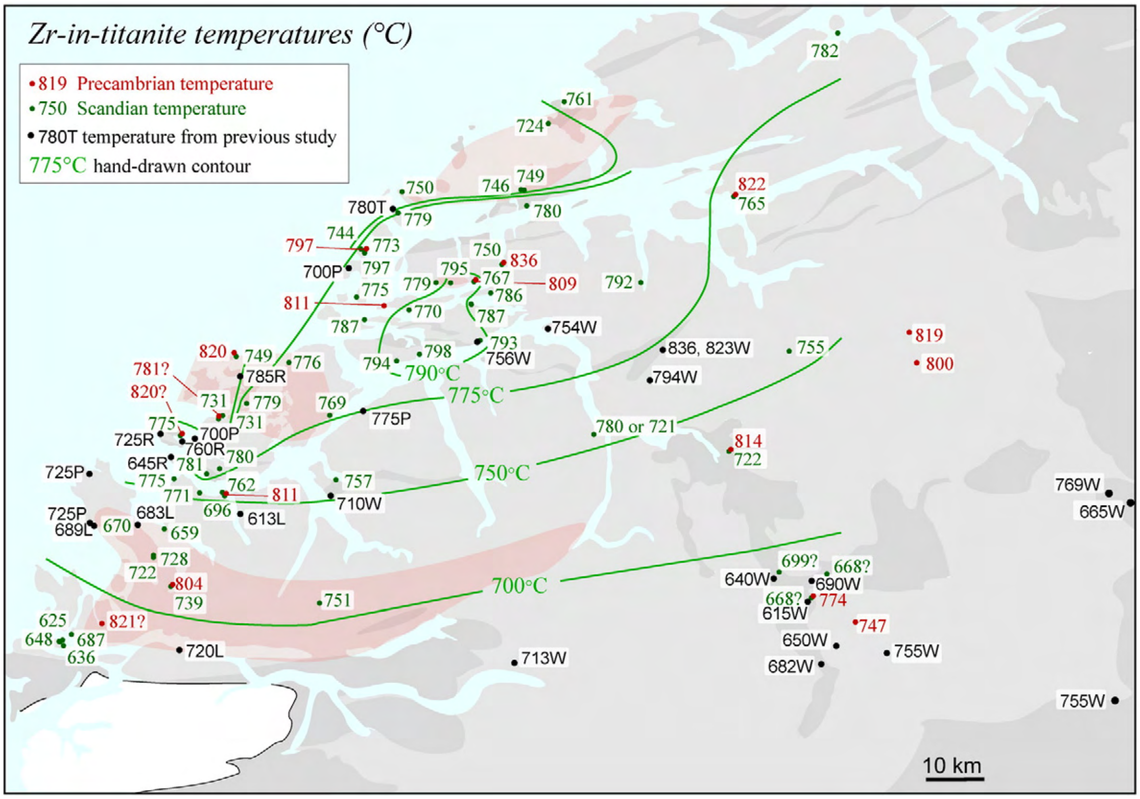

Fig. 7. Zr-in-titanite temperatures (°C) inferred for the i) pre-UHP Proterozoic metamorphism (red), and ii) post-UHP metamorphic overprint (green). Temperatures inferred from other studies are shown in black: K, Krogh (1980); L, Labrousse et al. (2004); P, Peterman et al. (2009); R, Root et al. (2005); T, Terry et al. (2000); W, Walsh and Hacker (2004). "?" indicates temperature is presumed to be of the age shown. The post-UHP, Barrovian metamorphic temperatures are contoured.

Rocks with Scandian titanite (see below) have Zr-in-titanite temperatures from ~625 °C to ~800 °C (green data, Fig. 7). The probability that Pb is more mobile than Zr within titanite means that some of these temperatures could correspond to Proterozoic events in spite of their Scandian U–Pb dates. The temperatures are lowest in the southern part of the study area and highest near the center of the study area. Note that in spite of the uncertainty introduced by assuming $P=1$ GPa and $a_{TiO_2}=1$, these temperatures are generally in agreement with temperatures determined previously for the amphibolite-facies overprint using other methods (see references in the caption of Fig. 7); a quantitative location-by-location comparison isn't warranted because of the unknown time and pressure represented by each temperature and the many different methods used to determine temperature in previous studies.

3.2. TIMS dating

Three samples analyzed by ID-TIMS gave common-Pb corrected, concordant dates of 384.2 ± 8.1 Ma to 388.6 ± 0.5 Ma (Table 2). Two other samples yielded Precambrian dates.

3.3. LA-MC-ICPMS U–Pb dating

The majority of the samples dated by LA-MC-ICPMS have isotopic ratios from multiple titanite grains that define a single $^{238}U/^{206}Pb$–$^{207}Pb/^{206}Pb$ isochron, indicating that, within the precision of the technique, the analyzed spots are of equivalent age. A substantial minority of samples, however, have titanite with a mix of Precambrian and Caledonian dates. In some of these mixed Precambrian–Caledonian

Table 2
Thermal-ionization mass spectrometry data.

Sample[a]	Wt. (mg)	U (ppm)	$^{238}U/^{206}Pb$	±2σ	$^{207}Pb/^{206}Pb$	±2σ	$^{206}Pb/^{204}Pb$	±2σ	Date (Ma)	±2σ	Inherited age (Ma)[b]
P6806G	1.7	34	9.72	0.02	0.1047	0.0014	339	17	600.8[c]	2.9	~950
P6809B1	1.6	42	6.79	0.02	0.0859	0.0020	809	68	868.1[c]	3.5	~950
P6815G1	1	27	14.03	0.03	0.1584	0.0025	133	34	389.6[c]	1.8	
P6815G1 fsp	1	–	–	–	0.8800	0.0110	17.6	1.6	–	–	
P6815H1	1	49	14.6	0.17	0.1343	0.0012	175	19	384.2[c]	8.1	
Y1710C5			14.52	0.03	0.1334	0.00013	185	0.6	388.6	0.5	
Y1710C5			14.30	0.04	0.1446	0.00014	161	0.6	–		
Y1710C5			14.47	0.03	0.1359	0.00014	179	0.7	–		
Y1710C5 fsp			–	–	0.8721	0.00087	17.8	0.4	–		

Ratios are spike- and fractionation corrected, but not corrected for common Pb.
[a] Sample fraction is titanite unless specified by 'fsp', in which case it is feldspar.
[b] Inherited ages are approximated via an intercept through 400 Ma and the common-Pb corrected ratios of titanite.
[c] Dates are titanite–feldspar or titanite–titanite isochrons, or $^{206}Pb/^{238}U$ dates calculated using a Stacey–Kramers common-Pb correction for an assumed age of 400 Ma.

Table 3
Summary of titanite data.

Sample	UTM N (zone 32V)	UTM E	Rock	Titanite diameter (μm)	Scandian Zr4+ (°C)	T(°C)	Rutile?	Reference material	Date (Ma)	±2σ	Inheritance (Ma)	White mica date (Ma)	±2σ
8815G4	6907793	0319906	gn	200		775	No	BLR	407.7	4.8		385	3
8822A9	6922958	0344430	cL	200		775	?	BLR	403.0	6.2		389	3
8829A2	6924040	0323930	ec	200		775	?	BLR	385.7	4.7		375	10
8830A11	6919200	0319200	myl	200		775	?	ONT	390.6	2.5		380	3
8907C6	6902980	0315910	gn	200		775	?	BLR	383.7	3.1		388	3
8911A5	6899080	0305880	myl	200		750	In ttn	BLR	385	10		385	3
8912C3	6894500	0299750	gn	100		700	?	BLR	398.0	5.4	>1218	380	3
A0713H1	6870920	2984400	gn	5000	625	625	No T.S.	BLR	Common	Caledonian			
A0714L1	6870595	0293942	gn	10,000	687	687	No T.S.	BLR	391.9	4.7		389	3
A0714N1	6869697	0295233	gn	5000	648	648	No T.S.	BLR	Common				
A0714R	6869584	0295778	gn	10,000	636	636	No T.S.	BLR	Common				
A0714U1	6878537	0299478	gn	100		700	In ttn	BLR	Caledonian		>936	385	7
A0715C1	6959224	0393446	dL	1500		675	No T.S.	BLR	<686		>928	390	3
A0715K	6874637	0305174	gn	100		690	In ttn	BLR	Common		>1037	390	3
A0715M1	6875494	0306035	cL	150		700	Ilmenite	BLR	Common				
A0715M2	6875494	0306035	myl	75		700	Ilmenite	BLR	385.5	7.6		385	9
A0715R1	6878222	0306082	gn	200		725	?	BLR	396	17		385	5
A0715S	6877270	0306629	gn	200		725	?	BLR	405.5	7.5		385	5
A0715V2	6884083	0308544	gn	100		750	?	BLR	Common				
A0716A1	6891670	0309568			672	672							
A0717J1	6900809	0328229	cL	200		760	?	BLR	395.3	1.7		387	3
A0717M3	6900044	0324840	cL	100		760	In ttn	BLR	396.3	3.5	>518	387	3
A0717P1	6900613	0322037	cL	500	787	787	No T.S.	ONT	387.9	3.0		387	3
A0718C1	6911848	0323902	gn	2000	732	732	No T.S.	BLR	396.2	2.3		380	3
A0718D	6911706	0324302	gn	1500	731	731	No T.S.	BLR	388.4	2.6		380	3
A0718F1	6913625	0330069	cL	500	779	779	In ttn	BLR	392.7	2.3		381	3
A0719H1	6912058	0333652	dL	200		780	?	BLR	396.3	4.6		384	3
A0720B1	6926559	0354086	cL	2000	794	794	No T.S.	BLR	Caledonian		>563	386	3
A0720G1	6923197	0362053	cL	2000	798	798							
A0720J2	6924845	0371109	cL	100	793	793	?	BLR	393.9	2.3		387	3
A0720P1	6930054	0351664	cL	2000	787	787	No T.S.	ONT	396.0	2.8		389	3
A0721A1	6940817	0358270	cL	200	781	781	?	BLR	394.7	4.3		375	5
A0721E2	6954376	0358650	gn	200		800	?	BLR	378.0	2.5		365	10
A0721E4	6954376	0358650	gn	200		800	In ttn	BLR	377.5	2.5		365	10
A0721E5	6954376	0358650	dL	1000	750	750	No T.S.	BLR	396	15		365	10
A0721G1	6947647	0355777	gn	150		770	?	BLR	397.9	1.8		375	10
A0722B1	6931735	0360944	cL	1000	770	770	No T.S.	ONT	403.2	3.3		386	3
A0722D1	6932130	0355727	gn	1000		780	No T.S.	BLR	403.0	3.1	>661	386	10
A0722E1	6934591	0347684	myl	300		780	?	BLR	384.7	3.2	>562	386	10
A0722G3	6942922	0352146	gn	400	773	773	No T.S.	BLR	404.9	2.4		382	10
A0722G5	6942922	0352146	cL	800	797	797	No T.S.	BLR	395.5	3.3		382	10
A0722H1	6943049	0350261	gn	300	744	744	No T.S.	BLR	392.4	4.8		380	10
A0722J1	6940978	0348607	myl	150		775	?	ONT	384.3	2.0		380	10
A0723A1	6939617	0377607	gn	400	750	750	?	BLR	395.4	2.5		386	4
A0723D1	6936105	0368043	gn	1000	795	795	No T.S.	BLR	400.7	4.8		386	4
A0724H	6953214	0380506	cL	2000	749	749	No T.S.	BLR	384.5	7.3		382	7
A0725G1	6969856	0390671			761	761							
A0725J4	6965966	0386926	gn	500		775	?	BLR	399.4	2.9		376	3
A0725K	6951396	0421332	gn	500	765	765	No T.S.	BLR	416.3	4.2	>897	388	3
A0726D1	6946729	0380298	myl	150		775	?	BLR	Caledonian		>1560	385	5
A0727C1	6949549	0378940	gn	100		800	?	BLR	397.1	2.4		383	7
A0727H1	6950618	0382077	gn	300	780	780	No T.S.	BLR	402.5	2.1		384	5
A0727N1	6953285	0391192	gn	200		775	?	BLR	399.5	4.2		384	4
A0801M	6934717	0375489	gn	2000	786	786	No T.S.	BLR	405.3	1.7		387	3
A0805C1	6922209	0336794	gn	500	776	776	No T.S.	BLR	395.9	1.4		385	3
E9803K1	6914364	0450563	gn	500		730	No T.S.	BLR	Caledonian		>682	394	3
E9803K2	6914364	0450563	gn	400		730	Ilmenite	ONT&BLR	403.1	1.6	>1168	394	3
E9804D12	6923560	0430756			755	755							
E9805K	6903367	0418379	gn	125	722	722	Ilmenite	BLR	389.2	4.1	>879	392	3
E9806B2	6920746	0393801	cL	700		775		BLR	401.8	1.7	>459	388	3
E9806G1	6929547	0387964	gn	150		790	?	BLR	403.4	4.0		387	3
E9808H	6901973	0409682	gn	75		725	Ilmenite	BLR	392.6	5.5		391	3
E9808I	6903301	0407151	ec	50		735	In ttn	BLR	388.5	5.3		391	3
E9809G1	6876228	0372629	ec	200		650	Y	BLR	Common				
E9810A9	6862204	0376564	gn	150		600	?	BLR	Common				
E9810C1	6861620	0392736	gn	300		575	?	BLR	966	25		396	3
E9814B2	6911007	0365504	gn	100		765	Y	BLR	396.7	3.0		387	3
E9816F2	6875328	0433871			676	676							
E9817A5	6870567	0442127				650							
E9819D2	6879216	0427149			699	699							
E1608G11	6868422	0408854	dL	2000		650	No T.S.	BLR	~753		>967	390	3
E1612D1	6902135	0341213	ec	150		765	In ttn	ONT	388.7	6.6		385	3
E1612F	6903276	0342207	myl	50		765	Ilmenite	BLR	Common				
E1612I2	6902568	0344808	ec	200		750	In garnet	ONT	384.6	5.0		386	3

Table 3 (*continued*)

Sample	UTM N (zone 32V)	UTM E	Rock	Titanite diameter (μm)	Scandian Zr4+ (°C)	T(°C)	Rutile?	Reference material	Date (Ma)	±2σ	Inheritance (Ma)	White mica date (Ma)	±2σ
E1626E	6880779	0438084			668	668							
G9702E1	6865191	0304343	gn	100		650	?	BLR	426.7	5.5		388	3
G9702F	6865300	0327300	gn	300		650	?	BLR	872	110	>872	392	3
G9704G1	6932262	0372778	cL	3000	787	787	No T.S.	ONT	400.8	2.9		386	3
G9705R1	6933947	0350524	cL	2000	775	775	No T.S.	ONT	397.7	3.1		385	5
G9705R2	6933947	0350524	gn	150		775	?	BLR	388.9	1.6		385	5
G9705Y1	6936466	0365075	gn	1000	779	779	No T.S.	BLR	391.7	2.2		387	4
G9706G1	6944895	0368622	myl	150		775	?	BLR	Common				
G9706N1	6940315	0368972	gn	75		780	?	BLR	393.4	2.7	>860	386	5
G9706V1	6940833	0386318	gn	400		775		BLR	405.7	2.5	>1163	388	3
G9707A1	6948000	0372700	gn	300		775	?	ONT	396.0	2.7		383	7
G9707N1	6953324	0380867	ec		746	746		BLR	390	12		383	3
G9707R2	6956389	0381139	gn (myl)	150		750	?	BLR	380.0	2.0		380	6
G9708Q4	6966025	0386425	gn	10,000	724	750	No T.S.	ONT	381.3	7.2		378	3
G9709K1	6964110	0370992	cL	150		800	In ttn	BLR	386.1	2.7		370	10
J5810D	6873535	0370723	gn	100		650	?	BLR	390.3	5.7	>952	391	3
J5813I3	6937221	0457279	myl	100		750	Ilmenite	ONT	Caledonian		>1489	394	5
J5814N3	6970208	3245481	gn	100		775	?	ONT	Caledonian				
K1725B3	6888574	0379031	gn	100		725	?	BLR	381.9	3.2		389	3
K1725C	6884866	0384679	gn	100		715	?	BLR	399.2	1.7		390	3
K1727C1	6877470	0341982	vein	100	751	725	Ilmenite	BLR	384.3	8.0		390	3
K1728B	6901586	0343461	cL	2000		760	No T.S.	BLR	398.2	2.0		387	3
K1729A1	6931621	0343391	cL	2000		780	No T.S.	BLR	397.0	1.7		389	3
K1729F5	6926933	0359482	gn	2000		800	No T.S.	BLR	408.4	1.6		387	3
K1730A1	6942269	0387253	gn	400		785	?	BLR	Caledonian		>1090	386	3
K1730C1	6938460	0392514	cL	1200		775	?	BLR	394.0	2.4	>719	386	3
K1730E1	6944037	0406111	cL	200		790	?	BLR	Common			388	3
K1730G1	6939653	0416670	gn	200		775	?	BLR	407.9	1.5	>527	388	3
K1730H1	6934615	0423163	cL	800		765	?	BLR	388.4	2.5		390	3
K1801F1	6982685	0436288	dL	2000		795	?	BLR	412.1	4.8		385	3
K1802H	6962627	0397253	gn	600		775	?	BLR	398.1	3.6		381	3
K1802J	6966722	0401404	gn	125		775	Ilmenite	BLR	386.2	2.5		380	4
K1803A	6910061	0393945			766	766							
K1803C1	6898527	0365564	gn	150		750	?	BLR	385.6	3.3		388	3
K5702D2	6921960	0357030	gn	200		790	?	BLR	385.5	1.6		386	3
K7717K	6874092	0292899	dL	100		700	?	ONT	387.1	4.5		387	5
K7718I1	6886112	0312212	gn	150	728	728	?	BLR	403.4	6.1		385	7
K7718I2	6886112	0312212			722	722							
M8710A1	6940572	0358706	gn	300		785	?	BLR	399.5	8.0		385	9
M8710E1	6948027	0383340	myl	75		775	?	BLR	385.3	2.5		385	5
M8710F1	6941483	0392543	gn	No T.S.		785	No T.S.		407.7	3.1		386	3
M8711C1	6983250	0438697	gn	1500	782	782	No T.S.	BLR	398.0	2.2		385	5
M8714G	6925161	0452569	gn	500		750	No T.S.	BLR	Caledonian		>1352	395	3
M8714J1	6920810	0453602	cL	500		730	No T.S.	BLR	Caledonian		>1575	395	4
P5624I9	6881545	0364231	gn	150		720	?	BLR	390.1	2.8		389	3
P5626H2	6889288	0347053	gn	400		725	Ilmenite	BLR	Caledonian		>927	388	3
P5626N	6900362	0341459	dL	200		760	?	BLR	388.1	2.6		387	3
P5626P1	6901837	0343331	gn	200		760	In ttn	ONT	380.0	5.4		387	3
P5627D1	6905989	0342670	gn	200		770	Ilmenite	BLR	402.0	3.3		384	3
P5627K4	6918751	0361434	gn	300		780	Ilmenite	ONT	387.5	2.6		385	3
P5628E5	6890777	0348654	myl	75		730	?	BLR	398.8	3.9		388	3
P5628U	6880496	0335130	gn	200		715	?	BLR	394.8	2.3		388	3
P5630A1	6890828	0314184	gn	200		700	?	BLR	Caledonian		>893	385	3
P5630A3	6890828	0314184	gn	100		700	?	BLR	Caledonian		>921	385	3
P5630B2	6891029	0314037	gn	3000	659	700	No T.S.	BLR	Caledonian				
P5630G2	6900507	0316435	dL	10,000	775	775	No T.S.	ONT	400.0	4.5		388	3
P5701G	6911715	0344446			769	769							
P5710A5	6900063	0346055	cL	300	757	757		BLR	395.3	6.8		387	3
P6805B3	6868968	0300367	ec	150		675	?	ONT	Caledonian			390	3
P6805F	6880512	0314576	gn	500	739	739	No T.S.	BLR	Caledonian		>817	385	5
P6806B1	6902138	0301826	gn	100		725	?	BLR	381.4	5.6		382	10
P6806F1	6899200	0299750	gn	150		725	?	ONT	Caledonian		>646	374	5
P6806G	6894098	0306699	gn	No T.S.		700	No T.S.	BLR	Caledonian		>827	380	5
P6807A2	6893302	0300958	gn	150		700	?	BLR	393.5	9.4		374	3
P6807C1	6891559	0300510	gn	150		700	No	BLR	Common				
P6807C2	6891559	0300510	myl	100		700	?	BLR	384.3	5.9		374	5
P6807D	6891559	0300510	myl	200		700	?	BLR	379	10		374	5
P6809B1	6873252	0425332	gn	No T.S.		675	No T.S.	BLR	Caledonian		>891	393	3
P6814B	6872804	0313814	gn	150		650	?	BLR	Caledonian		>807	390	3
P6815E1	6897678	0325206	gn	150	716	750	Ilmenite	BLR	Caledonian		>843	387	3
P6815F2	6897800	0324871	cL	1000	762	762	No T.S.	ONT	389.0	1.9		387	3
P6815G1	6898160	0320477	cL	500	771	771	No T.S.	TIMS	389.6	1.6		383	3
P6815G1	6898160	0320477	cL	500	771	771	No T.S.	BLR	396.8	3.6		386	3
P6815H1	6898650	0319845	gn	No T.S.		775	No T.S.	TIMS	384.2	8.1		383	3
P6815H1	6898650	0319845	gn	No T.S.		775	No T.S.	BLR	389.0	4.6		383	3

(*continued on next page*)

Table 3 (*continued*)

Sample	UTM N (zone 32V)	UTM E	Rock	Titanite diameter (μm)	Scandian Zr4+ (°C)	T(°C)	Rutile?	Reference material	Date (Ma)	±2σ	Inheritance (Ma)	White mica date (Ma)	±2σ
P6818A1	6944470	0369027	gn	1000		775	No T.S.	BLR	<977		>1632	384	4
P6821A1	6885151	0358152	gn	200		725	No T.S.	BLR	392.8	2.1		378	3
P6824F1	6875768	0297729	gn	200		725	Ilmenite	ONT	398.8	2.5		385	7
P6826I1	6935390	0403755	cL	1000		792	In ttn	BLR	399.1	1.7		388	3
R9821D2	6936785	0371144	gn	400	767	767	No T.S.					387	3
R9823A1	6916292	0335577	ec	200		780	In garnet	ONT	388.8	3.1		384	3
R9824B4	6923241	0327304	myl	200	749	749	Ilmenite	BLR	386.3	2.8		378	5
R9825E1	6918930	0320000	myl	150		750	?	BLR	381.9	1.9		380	5
R9827I7	6899970	0323450	gn	150		765	?	BLR	Common				
R9828B2	6907782	0317431	myl	100	775	775	?	BLR	388.6	2.2		385	5
R9828C8	6908472	0313872	myl	200		775	In garnet	BLR	387.9	3.1		380	10
R9828C11	6908472	0313872	myl	100		775	?	ONT	378.9	4.4		380	10
R9829C3	6906600	0313400	gn	100		775	In ttn	BLR	390.8	2.9		387	10
R1617B1	6909174	0334880	gn	100		775	?	BLR	388.8	2.4		383	3
R3704A6	6914345	0329980	gn	100		780	?	BLR	390.1	2.5		384	3
Y0814E3	6841379	0361044	gn	750		575	?	ONT	<854		>968	396	3
Y0815J3	6849865	0358271	myl	200		590	?	BLR	Common				
Y0820C2	6853557	0352576	gn	200		600	?	ONT	Caledonian		>970	395	3
Y0826I9	6862500	0346400	myl	50		640	?	BLR	Common				
Y0829J2	6857702	0348041	gn	175		600	?	BLR	395	14		397	3
Y1519C2	6854784	0347504	gn	75		600	?	BLR	Common				
Y1525A5	6864543	0373949	gn	250		600	?	ONT	983	49	~983	395	3
Y1526A	6868579	0370968	cL	50		600	Ilmenite	BLR	Common				
Y1526F5	6869800	0368700	gn	150		600	?	BLR	Common				
Y1606C1	6869102	0361435	gn	300		625	?	BLR	Caledonian		>935	390	3
Y1607D9	6866866	0338890	gn	200		650	?	BLR	Caledonian		>885	395	3
Y1617G1	6870233	0321172	gn	150		690	?	BLR	Caledonian		>970	390	3
Y1702A2	6857061	0346856	gn	300		600	?	BLR	Common				
Y1710C5	6902915	0322045			780	780							

Rock type: "cL", concordant leucosome; "dL", discordant leucosome; "eclogite", retrogressed eclogite; "gn", gneiss; "myl", mylonite.
T(°C): temperature from Zr in titanite or interpolated from Fig. 7.
Rutile?: Does the rock contain rutile? "T.S.", thin section.
Date (Ma): U–Pb isochron date from this study. Stated uncertainty includes in-run errors and decay constant errors only.
The total uncertainty is a minimum of 2%–or 8 Myr for a 400 Ma date.
Inheritance (Ma): approximate age or minimum age of inherited titanite.
White mica date (Ma): 40/39 K-white mica date interpolated from data summarized in Hacker et al. (2007) and Walsh et al. (in review).
Uncertainty based on Renne et al. (2010).

samples, distinct dates were measured from different grains, whereas in most, individual grains yielded a range of dates. A specific example of this is shown in Fig. 8, which shows a Proterozoic grain partially recrystallized along a reaction front that propagated into the crystal i) inward from the grain margins, ii) outward from inclusions, and iii) along twin boundaries—in the latter two cases exploiting the higher

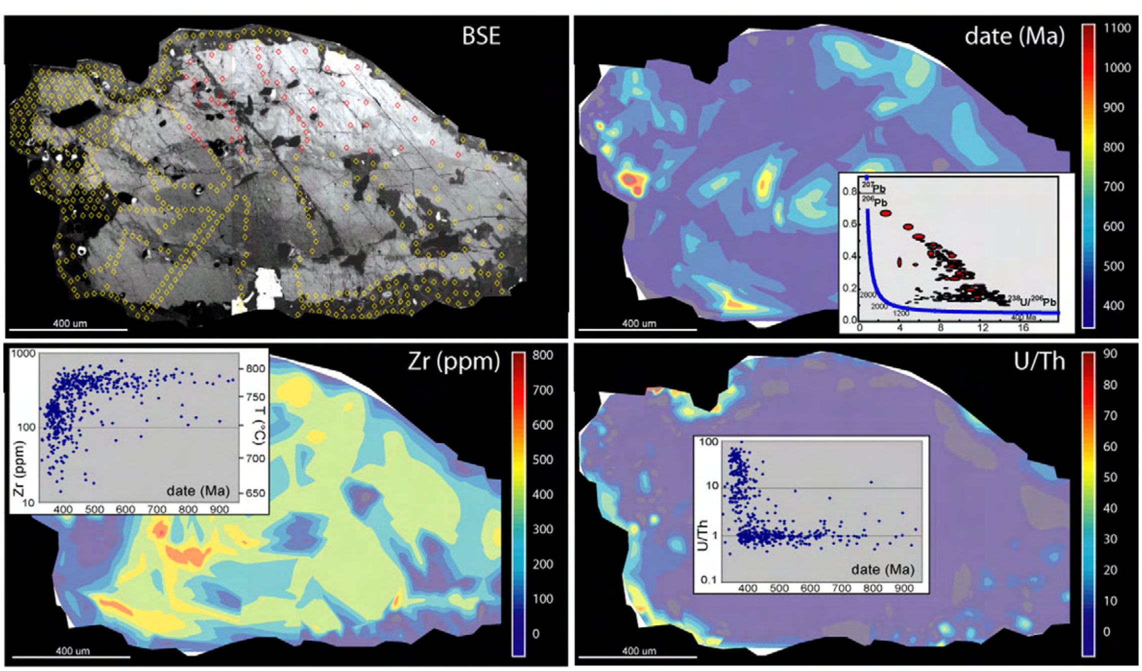

Fig. 8. Single titanite grain from gneiss E9803K2 with date and compositional maps constructed with 30 μm spots. The outermost rim of the grain is Scandian, as are areas around inclusions, along twin planes, and along cracks; this recrystallization is evident in the back-scattered electron image. The oldest 207-corrected $^{206}Pb/^{238}U$ dates are preserved in arbitrary locations within the nonrecrystallized core. Apparent temperatures (calculated for 1 GPa) are highest in the grain interiors and lowest in the recrystallized portions.

interfacial energies of incoherent grain boundaries and twins. The composition of the recrystallized, Caledonian portions of the grain is distinctly different from the compositions of the inherited, Precambrian portion (e.g., lower Zr and higher U/Th).

There are specific regional patterns to the dates of titanite in different types of rock. The titanites in retrogressed eclogite (Fig. 9) are the same or younger, 389–386 Ma, than eclogite U–Pb zircon, Lu–Hf garnet, Sm–Nd garnet, and Rb–Sr white mica dates (425–400 Ma). They show no inherited, Precambrian dates—as expected for eclogite, in which the mafic protolith should have had ilmenite, precluding the possibility of inheritance. These data are compatible with the formation of titanite during retrogression, as inferred from textures (Table 1). The dates could represent the time that titanite i) *formed* during retrogression of the eclogite or ii) *closed* to diffusive(?) Pb loss during cooling; deformation-induced Pb loss in these weakly deformed rocks is precluded.

Titanite from concordant, deformed leucosomes and from discordant, nondeformed leucosomes shows equivalent ranges of Caledonian dates, from ~403 Ma to ~385 Ma (Fig. 9). Leucosome titanite in the south and east of the study area (and two samples from the core of the orogen) is partially reset from Precambrian toward Caledonian dates; the inherited components suggest that ~1.6 Ga and ~0.96 Ga components are both present, as identified by Tucker et al. (1990). The oldest Caledonian leucosome titanite dates, ~408–400 Ma, are in the center of the study area. Titanites south and north of that are chiefly 400–392 Ma, but there are a few dates as young as ~385 Ma. The dates of the nondeformed leucosome titanites could represent the time that the titanite crystallized or closed to Pb loss; given the high inferred closure temperature for titanite (see below), the former is more likely. The dates of the deformed leucosome titanites could have the same meaning or herald the time of deformation-induced Pb loss.

The titanites from mylonitic gneisses and mylonites are the youngest, at 389–377 Ma (Fig. 10). All except one are within the "strong Scandian deformation" domain of Hacker et al. (2010). Because the titanite dates in these strongly deformed rocks are younger than those from surrounding rocks that experienced the same temperature history, they most likely represent the time that the titanite formed or closed to Pb as a result of deformation.

The titanite in the gneiss and granulites are generally younger to the northwest, but show considerable inheritance of ~1.6 Ga, possibly ~1.2 Ga, and 0.96 Ga components (Fig. 11). When all of the titanite dates are considered together (Fig. 12), there is an overall pattern similar to that recognized farther north by Tucker et al. (1990). In the southern and eastern parts of the study area where temperatures were as low as 650 °C, most of the titanite is Precambrian. In the north and west where temperatures were as high as 800 °C, titanites are as young as 378 Ma. This pattern of northwestward younging is interrupted by two domains where old titanite U–Pb dates are preserved: one in the southwest (~15 × 30 km) partially overlapping the Nordfjord UHP domain where temperature exceeded 700 °C, and one

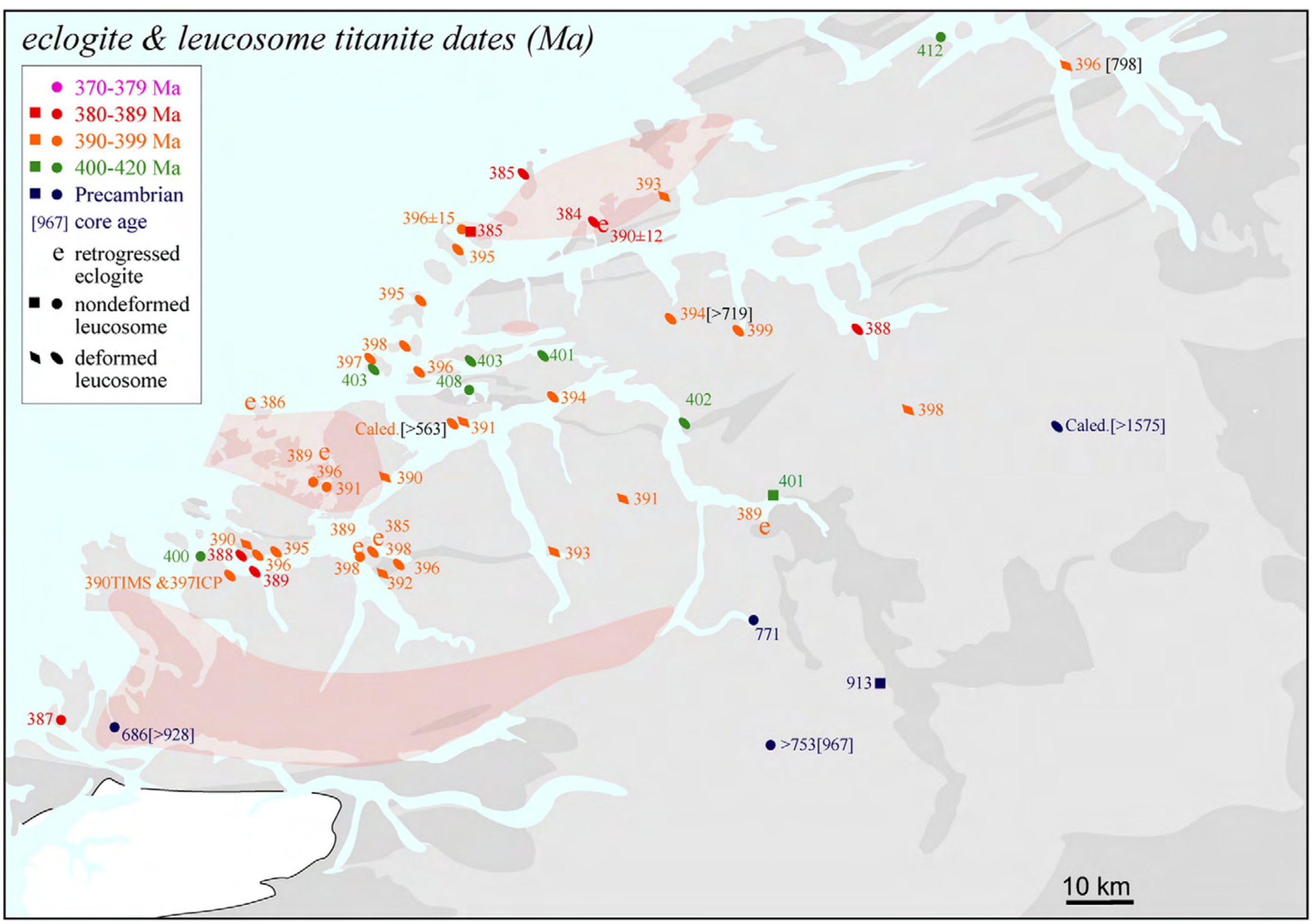

Fig. 9. Titanite dates (Ma) from retrogressed eclogite are younger than eclogite dates; they are oldest in the south (397 Ma) and youngest in the north (386 Ma). Titanite dates (Ma) from concordant, deformed leucosomes (ellipses) and from discordant, nondeformed leucosomes (circles) show the same range of Caledonian dates: ~404 Ma to ~384 Ma. Each sample location is colored according to date. Samples with identifiably different core and rim dates are denoted as rim_date[core_date]. "Caled." indicates Caledonian date that is poorly defined because of low radiogenic/common Pb ratio. ">" indicates oldest 207Pb-corrected date of sample and that additional analyses would likely reveal older dates. All dates have uncertainties of 2% unless otherwise indicated.

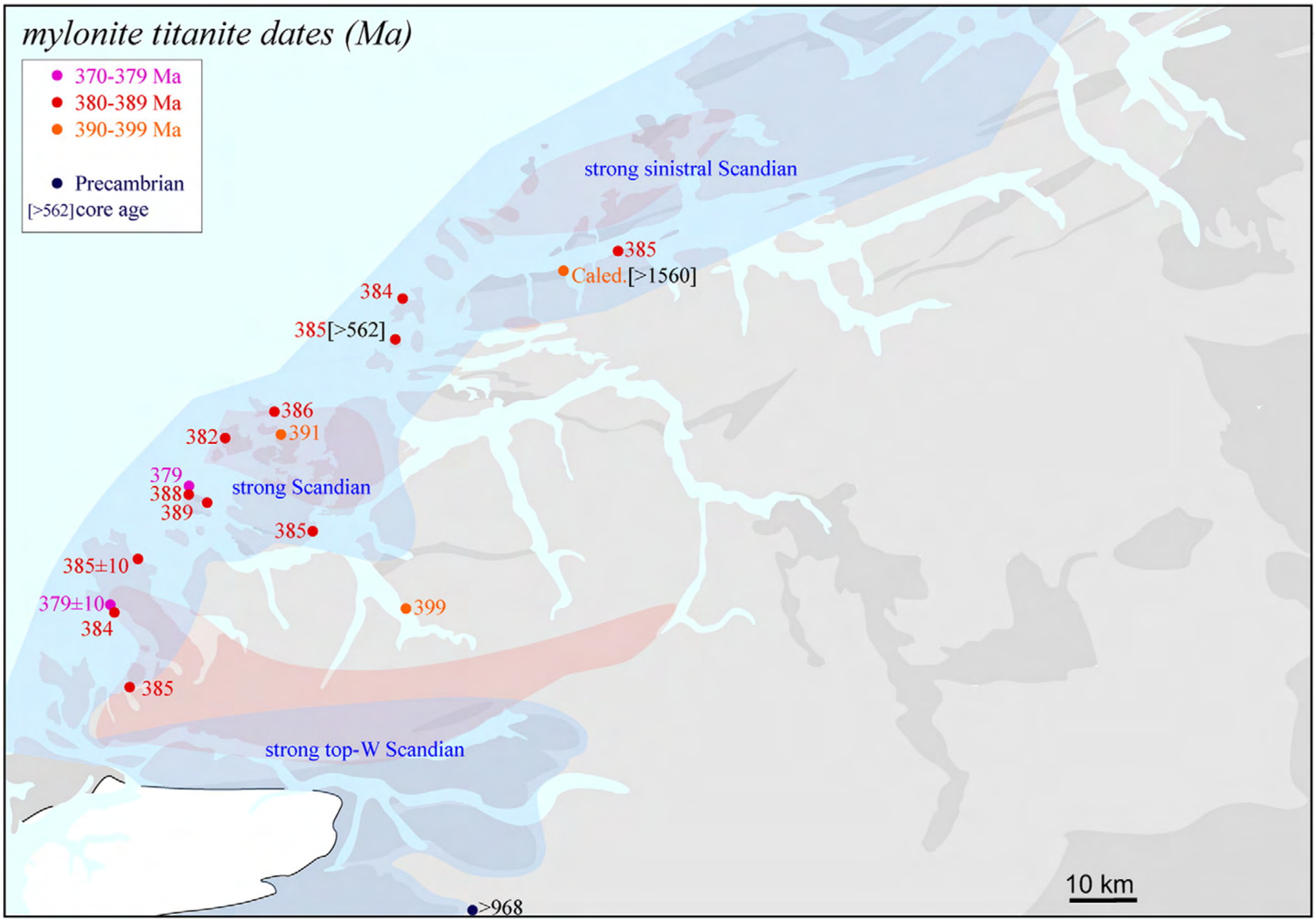

Fig. 10. Titanite dates (Ma) from mylonitic gneiss and mylonites are among the youngest, 389–377 Ma. "Strong Scandian deformation" domain of Hacker et al. [2010] shown in pale blue. See Fig. 9 caption for further explanation. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

in the center of the study area (~15×50 km) where the temperatures reached nearly 800 °C. These old titanite domains are evident in a few mylonites and leucosomes, but are delineated chiefly by titanite from quartzofeldspathic gneiss.

4. Discussion

Although the overall northwestward decrease in titanite dates parallels the increase in metamorphic temperature, the age gradient need not reflect greater Pb loss at higher temperature, but could be the result of neocrystallization of titanite or replacement/overgrowth/recrystallization of Precambrian titanite. In the latter case, the recrystallization sensu lato could have been driven by temperature, pressure, fluid composition/availability, or deformation (e.g., by the motion of grain boundaries or dislocations). These possibilities are evaluated below.

4.1. Titanite closure to Pb

As noted in the Introduction (Fig. 1), it has been inferred from TIMS dating and from an experimental diffusion study that cooling from temperatures of 700–800 °C at rates of 10–100 K/Myr should be sufficient to cause measurable Pb loss in titanite as coarse as 2–10 mm and that titanite with radii <300 μm should undergo total Pb loss at >750 °C. Only two early TIMS studies contradicted these conclusions: Schärer et al. (1994) and Zhang and Schärer (1996) calculated significantly high closure temperatures of 712–779 °C for 300 μm grains heated for 2–4 Myr and then cooled at 10–100 K/Myr. The recent increase in microbeam dating of titanite—summarized in Fig. 13—lends considerable support to the conclusion that titanite is more-resistant to thermally mediated Pb loss than initially envisaged (Fig. 1). Kohn and Corrie (2011) inferred from thermobarometry and ICP dating of Himalayan calc-silicate rocks that a 15 Myr metamorphism at 750 °C and subsequent cooling at >50 K/Myr were insufficient to homogenize Pb at the 10–15 μm scale. Gao et al. (2012) used ICP dating to conclude that a 10 Myr metamorphism at 800 °C was insufficient to homogenize Pb at the 100 μm scale.

Our large dataset for U–Pb dates for titanite in gneiss and mylonite supports and extends these conclusions. Not only did some titanites in the WGR significantly smaller than 1 mm show minimal Pb loss during the Scandian overprint (Fig. 13), but *U–Pb dates in some titanite survived long-term heating above 750 °C at pressures well outside the stability field of titanite* (Fig. 3). The relationship among temperature, grain size and U–Pb date makes clear that some grains (unfilled symbols in Fig. 13) as small as 200 μm preserve old, Proterozoic U–Pb dates even though they reached high pressures and temperatures >750 °C for 25–40 Myr. These observations suggest that thermally mediated volume diffusion was not the principal means of U–Pb resetting. The spatial variability in the pattern of most of the gneiss dates (Fig. 12)—and the younger titanite dates from mylonites—also argue against simple volume diffusion of Pb. Within-grain date differences, compositional differences, and grain textures (Fig. 8) further imply that volume diffusion was subordinate to (re)crystallization-driven Pb mobility.

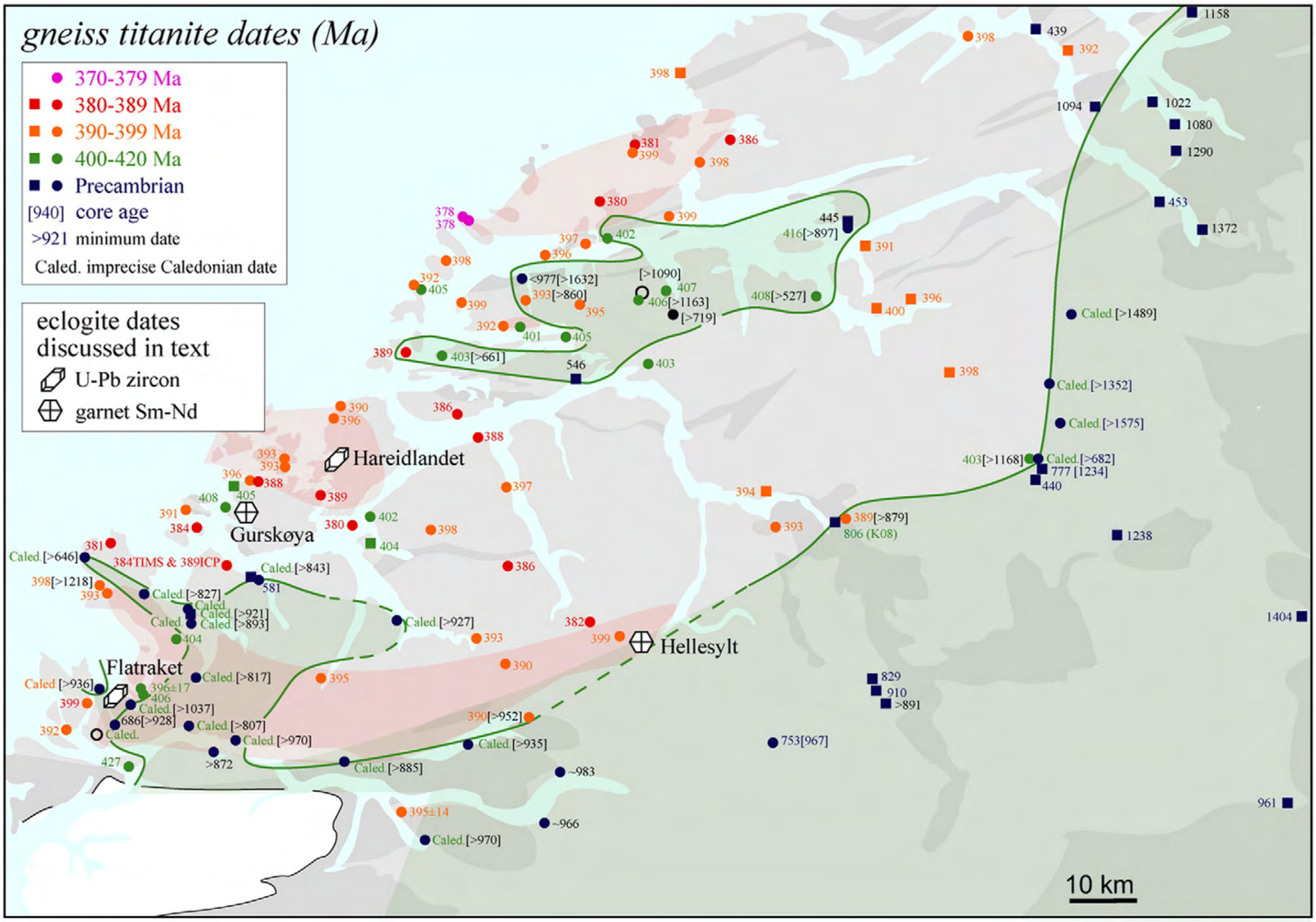

Fig. 11. Titanite dates (Ma) from gneiss and granulite show generally northwestward-younging Scandian dates and significant inheritance of ~1.6 Ga, possibly ~1.2 Ga, and 0.96 Ga components. Locations of young eclogite ages from Flatraket, Hellesylt, Hareidlandet, and Gurskøya are discussed in the text. See Fig. 9 caption for further explanation.

$^{40}Ar/^{39}Ar$ muscovite dates young northwestward toward the core of the orogen in a systematic way (Figs. 2 and 14). The U–Pb titanite dates also generally young toward the core of the orogen (Figs. 12 and 14). One might thus imagine that the difference in $^{40}Ar/^{39}Ar$ muscovite dates and U–Pb titanite dates could be used to calculate cooling rates across the WGR and to develop a detailed map of times and rates of cooling. Instead, the two types of date show considerable overlap—within uncertainty—and, in particular, there is no resolvable difference between the $^{40}Ar/^{39}Ar$ muscovite date and the youngest titanite date at a given locality (Fig. 14). This implies, again, that the U–Pb titanite dates are the result of (re)crystallization induced by fluid flow, deformation, or reaction, and are not the result of thermally mediated volume diffusion; the same could be true for the $^{40}Ar/^{39}Ar$ dates. In other words, each titanite date reflects the last time that the U–Pb system was disturbed by *any* process. There is a northwestward gradient in the youngest date measured, but in many locations within the orogen there is a range of dates reflecting crystallization or Pb loss during fluid flow, deformation, reaction and/or volume diffusion.

4.2. Flow & phase transformations in the deep crust

The surprising survival of titanite in 450–750 km^2 domains through a 25–40 Myr long orogenic event at ultrahigh pressures and at temperatures as high as 750 °C requires that the titanite in these ‘old domains’ remained metastable at those extreme conditions. The existence of metastable titanite strongly suggests that other cogenetic phases—most specifically the low-pressure mineral plagioclase—were also metastable at those conditions. If plagioclase and titanite survived metastably, it is impossible for the rock to have recrystallized extensively (i.e., flowed ductilely to high strain) at 3 GPa and 750 °C. The extensive region of Scandian titanite mapped out in this study (Fig. 12), correlates reasonably well with the zones of “moderate” and “strong” Scandian fabric mapped by Hacker et al. (2010) on the basis of outcrop-scale structures. Realizing that typical quartz-bearing rocks can reach mantle depths and then be exhumed near-isothermally at 750 °C without internal deformation is important and affects our view of tectonics, petrology, geochronology, geodynamics, geodesy and geophysics. Models that are founded simply on the assumption that rocks weaken exponentially with increasing temperature are likely wrong; it would be more realistic to model rock strength as a function of additional variables such as bulk composition and volatile content. The relatively dry high-amphibolite to granulite-facies gneisses of the WGR were clearly stronger and less reactive than lower grade, more-hydrous quartzofeldspathic rocks.

4.3. Exhumation-related amphibolite-facies metamorphism

The titanite dataset described herein places useful constraints on the formation and exhumation of the WGR. 1) Titanite recrystallization took place over ~20 Myr at elevated temperature. 2) If the U–Pb dates from titanites in Caledonian leucosomes are crystallization ages—as seems probable from the high inferred closure temperature and the similarity in dates from deformed and non-deformed leucosomes—local melting continued for at least 15 Myr, until ~385 Ma. The spatial

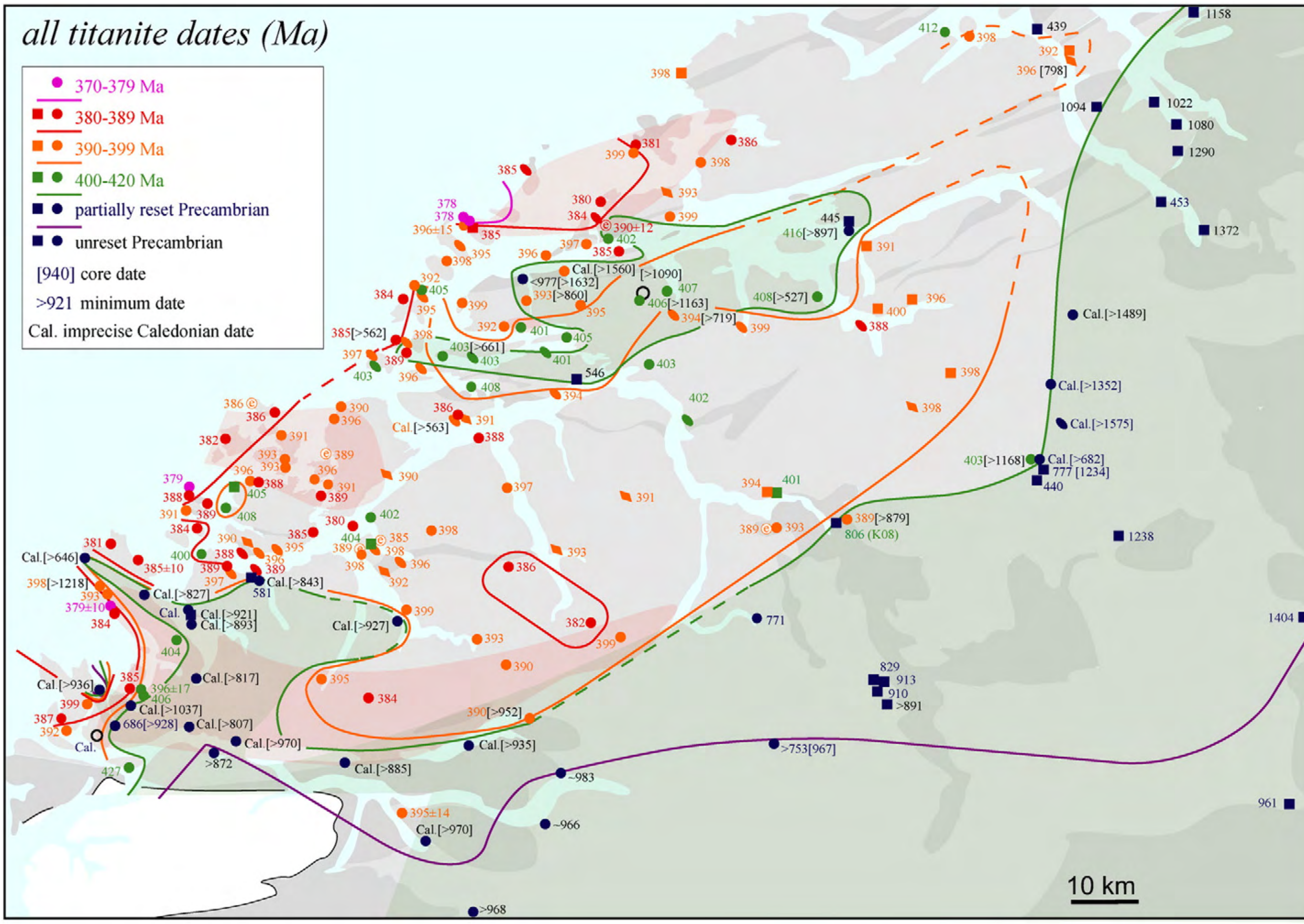

Fig. 12. Titanite dates (Ma) for all samples. Younger dates are shown in hotter colors; grains with significant inherited components are shown in cold colors and emphasized with a green background. Comparison with Fig. 2 shows that an area of old dates partially overlaps the Nordfjord UHP domain in the southwest and a second area of old dates is in the center of the study area where metamorphic temperatures reached 750 °C (some data are from previous studies indicated in Fig. 6). (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

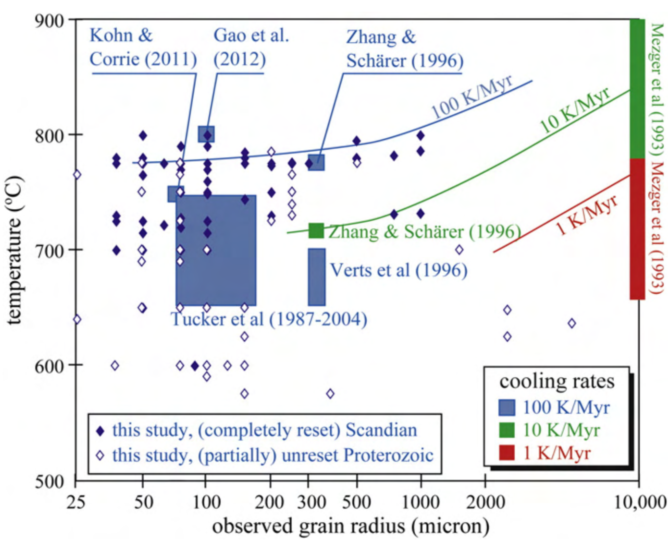

Fig. 13. Titanite temperature–grain size–U–Pb date dataset indicates that titanite is more resistant to thermally mediated Pb loss than previously inferred (compare with Fig. 1). Note that all temperature determinations may be inaccurate by as much as 53 °C—though more typically by ~11 °C—because equilibration pressures are poorly known. Temperatures from samples without rutile may also be 15 °C too hot.

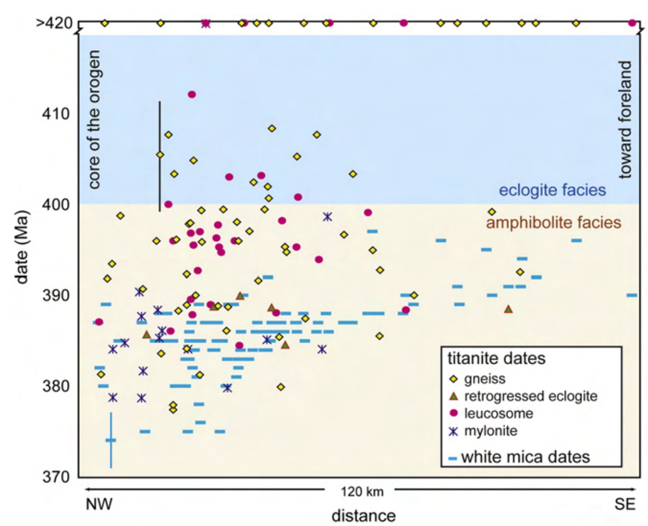

Fig. 14. U–Pb titanite and $^{40}Ar/^{39}Ar$ muscovite dates show considerable overlap. A) There is no difference between the $^{40}Ar/^{39}Ar$ muscovite date and the *youngest* titanite date at a given locality (shown as distance from the southeast corner of the study area). Note that when comparing titanite dates to muscovite dates, the two have total uncertainties of ~2% and 1%, respectively; two examples are shown. B) Reducing uncertainties to 0.5σ emphasizes that—at any given distance across the WGR—some titanite is older than muscovite. Together, these data imply that the U–Pb titanite dates are the result of (re)crystallization induced by fluid flow, deformation, or reaction, and are not chiefly the result of thermally mediated volume diffusion.

distribution of all leucosome dates suggests that melting began in the center of the study area and ended along the outer coastline. 3) Titanites in the gneiss have similar dates to those from the leucosomes, although some of the gneiss titanites are a bit older (perhaps reflecting inheritance) and some are a bit younger, perhaps due to subsolidus recrystallization. 4) Local amphibolite-facies mylonitization began at ~399 Ma and continued through ~377 Ma; these titanites are among the youngest.

In aggregate, these data imply a lengthy residence time at crustal depths (cf. Walsh and Hacker, 2004) during which titanite crystallized in leucosomes, recrystallized by reaction with other minerals or fluids, and recrystallized in response to deformation. This conclusion stands in stark contrast to the short-lived thermal event at 395 Ma inferred from the pioneering TIMS titanite work of Tucker et al. (1990).

5. Conclusions

Campaign-style, orogen scale dating in the Western Gneiss Region of Norway shows a general gradient in U–Pb titanite dates from Precambrian to Scandian toward the core of the orogen. The titanite U–Pb dates do not show a simple relationship among grain size, peak temperature, or cooling rate, implying that thermally mediate volume diffusion was not the principal factor controlling resetting of the U–Pb system. The preservation of Precambrian titanite in quartzofeldspathic gneiss in HP and UHP domains means that some titanite, and likely 450–750 km^2 domains of gneiss, survived the entire 25 Myr long subduction–exhumation cycle; during this period the titanite was unstable, but did not transform to (U)HP minerals and was not deformed. These observations are further support for the recognition that equilibrium phase transformations and ductile flow of quartzofeldspathic crust at temperatures up to 750 °C cannot be assumed.

Acknowledgments

The manuscript has been improved by comments from Klaus Mezger, Hannes Brueckner and an anonymous reviewer. Funded by EAR-0510453, 0649933, 0911485, and 0923552; the University of California, Santa Barbara; and the NFR Centre of Excellence grant to PGP. Håkon Austrheim provided many years of discussion on the importance of fluids in metamorphism and deformation. A host of collaborators participated in sample collection and interpretation: David Root, Emily Walsh, Dave Young, Scott Johnston, Emily Peterman, Jen Schmidt, Stacia Gordon, Steven Arauza and Adam Ginsburg. Craig Storey provided, and Daniel Condon helped analyzed the Ontario-2 titanite reference material. Ellen Kooijman and Matthijs Smit provided helpful comments on the manuscript, and Ellen grew the synthetic titanite used as an electron probe standard. Frank Mazdab provided unpublished information about the BLR reference material.

Appendix A. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.chemgeo.2012.11.012.

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Appendix

A1. Perple_X Calculations

The phase relations of eight typical WGR quartzofeldspathic gneisses (Table A1) were determined using *Perple_X* [*Connolly and Petrini*, 2002] and the activity models listed in Table A2. All the bulk compositions were simplified to the Na_2O–CaO–K_2O–MgO–FeO–MnO– Al_2O_3–TiO_2–SiO_2–H_2O system. The exclusion of some components (e.g., Cr) and the absence of some components from solid solution models (e.g., K_2O in amphibole) means that the calculations only approximate natural rocks and minerals. K_2O poses perhaps the greatest problem of this type because neglecting the presence of K_2O in amphibole means that the stability of K-white mica is overemphasized. The amount of H_2O was fixed to stabilize the existing mineral assemblage. CO_2 was neglected principally because even for a_{CO2} = 0.5, a key equilibrium like titanite + anorthite + H_2O = rutile + quartz + grossular expands titanite stability by only 0.2 GPa; for other equilibria, such as titanite + zoisite = rutile + quartz + grossular + H_2O, the addition of CO_2 moves the stability field of titanite to *lower* pressure.

A2. Titanite Zr Analyses by Electron Probe

Measurements were made using a Cameca SX-100 operated at 15 kV, 200 nA, a 5 µm spot, and using *Probe for EPMA* software (Table A3). Aggregate x-ray counts from 5 spectrometers (4 LPET and one PET) were collected for 200 seconds on the Zr K_α peak and 100 seconds off peak on both sides of the peak. A linear background extrapolation was used to determine net (peak–background) Zr K_α intensity. Zr metal was used a primary standard and the natural titanite reference material BLR was used to assess accuracy. The Zr content of BLR reported by *Mazdab* [2009] is 1300 ppm by EPMA, 1470 ppm by solution ICP-MS, and 1830 ppm by INAA. We obtained values of 1496–

1517 ppm (1.4% variation) during different analytical sessions. If all grains of BLR have the same Zr content—and the differences reported in previous studies are the result of different measurement techniques—all our Zr measurements might be off by +14%, +2%, or –22%, depending on which value in *Mazdab* [2009] is correct; given the widespread use of BLR as a reference material, more Zr determinations are desirable. A Zr-free synthetic titanite was used as a blank correction to remove systematic errors in peak intensity caused by spectrometer-crystal artifacts. Using this method we obtained a detection limit of 15 ppm, calculated as three standard deviations above background [*Scott and Love*, 1983].

A3. UCSB ID-TIMS Analytical Technique

Five titanite ± feldspar samples (Table 2) were analyzed by TIMS at UCSB using the technique of *Kylander et al.* [2008]. Grains were weighed, washed in weak HNO_3, dissolved in a 10:1 HF- HNO_3 solution, and a ^{235}U-^{205}Pb spike was added. The aliquots were passed through Dowex AG 1x8 resin in 1 N HBr to separate Pb from the matrix. Pb separates were passed through the resin in 3.1 N HCl. The matrix was passed through UTEVA resin in 2 N HNO_3 for separating U. Dissolved samples were mixed with H_3PO_4, transferred to a preheated filament, and analyzed on a Finnigan MAT-261 TIMS at UCSB (Table 2). The blank- and fractionation-corrected $^{206}Pb/^{204}Pb$ ratios in titanite range from 133–809. The data were corrected for common Pb using feldspar from the same rock, or with the *Stacey & Kramers* [1975] model.

A4. NIGL ID-TIMS Analytical Technique

One titanite sample,Ontario-2, was analyzed by ID-TIMS at the Natural Environment Research Council Isotope Geology Laboratory (NIGL) in the UK (Table A4). Titanites were washed in distilled 2N HNO3 at ~60°C followed by ultrapurewater and then acetone. Dissolution occurred in 29M HF-trace HNO3 over 3 days at 220°C in Savillex microcapsules. Prior to dissolution, samples were spiked with the ET535 tracer solution and U and Pb separated by anion exchange chemistry. The U elution involved a two-stage process. The sample was loaded onto the column in 3 N HCl after the columns had been washed in the same solution. U was eluted using 1 N HBr and dried in Savillex beakers overnight. Pb was collected in 6 N HCl, a drop of 0.33 N H3PO4 was added and then dried in Savillex beakers. The U was reloaded into the column in 6 N HCl. The column was washed with 8 N HNO3 before U was eluted using distilled water or 1 N HCl. This second U procedure was repeated to make sure that the U was concentrated and purified. Finally, a drop of 8 N H3PO4 was added and the sample dried.

The U and Pb separates were loaded separately onto degassed rhenium filaments in silica gel and run on a Thermo-Electron Triton TIMS instrument. Data were gathered statically using Faraday cups, except 204Pb which was measured on the SEM. The necessary Faraday/SEM gain corrections were applied using 205Pb to correct to. Procedural blanks were <5 pg Pb and <0.1 pg U. U-Pb ages and uncertainties were calculated using the algorithms of *Schmitz and Schoene* [2007], combined with a ^{235}U/^{205}Pb ratio of 100.18 and ^{233}U/^{235}U double spike ratio of 0.99464 for the ET535 tracer. In Table A4 the data are presented as both ‘radiogenic plus sample’ (i.e., corrected for blank and tracer subtraction, and mass bias) and ‘common Pb corrected,’ which in addition to the blank, tracer and mass bias corrections also corrects the remaining common Pb using the two-stage model of *Stacey and Kramers* [1975]. ^{238}U/^{206}Pb ages are traceable back to SI units via the gravimetric calibration of the EARTHTIME U-Pb tracer and the determination of the ^{238}U decay constant [*Jaffey et al.*, 1971; *Condon et al.*, 2007].

A5. LA-ICP-MS Analytical Technique

Samples were ablated either in thin section or in grain mount (Table 1) using a Photon Machines 193 nm ArF excimer ultraviolet laser with a HelEx ablation cell coupled to a Nu Instruments Plasma high-resolution multi-collector inductively coupled plasma mass spectrometer (MC-ICPMS) (Table A5). The laser spot diameter was 30 or 40 µm and the laser fluence was ~1 J/cm^2. The laser was fired twice to remove common Pb from the sample surface and this material was allowed to wash out for 10 seconds. Material was then ablated at 4 Hz for 20 seconds, resulting in a pit depth of ~8 µm. Masses ^{204}Pb+Hg, ^{206}Pb, ^{207}Pb, and ^{208}Pb were measured on ion counters, and masses ^{232}Th and ^{238}U were measured on Faraday detectors. Analyses of unknowns were bracketed by analyses of *titanite* primary reference materials (RM) BLR or Ontario-2 (Table A6). At least one secondary *titanite* reference material (Table A6) was also included in each run as a monitor of accuracy: BLR, Ontario-2, the in-house titanite standard Y1710C5 (Table 2), or the McClure Mtn (MM) titanite (Table A5).

The *Iolite* plug-in [*Paton et al.*, 2011] for the Wavemetrics *Igor Pro* software was used to correct measured isotopic ratios for baselines, time-dependent laser-induced inter-element fractionation, plasma-induced fractionation, and instrument drift. Baseline intensities were determined prior to each analysis. The mean and standard error of the measured ratios of the backgrounds and peaks were calculated after rejection of outliers more than 2 standard errors beyond the mean. Long-term analysis shows that this equipment and method are capable of measuring the baseline- and fractionation-corrected ^{206}Pb/^{238}U of a primary reference material (e.g., Ontario-2) with a long-term precision of ± 0.7% (Figure A1); the baseline- and fractionation-corrected ^{207}Pb/^{206}Pb can be measured with a long-term precision of ± 0.4%.

The in-run uncertainty of isotopic ratios measured in secondary RMs and unknowns is, naturally, greater. Analysis of secondary RMs with homogeneous isotopic ratios (e.g., zircon) demonstrates that the uncertainty of individual $^{206}Pb/^{238}U$ measurements is dominated by counting statistics and signal stability; a typical uncertainty can be represented by the Tukey's biweight mean of ~1.9% calculated for the >3400 unknowns reported here. In contrast, individual $^{207}Pb/^{206}Pb$ measurements are much more precise—Tukey's biweight mean is 0.2%—and require an additional 2% external error attributable either to variation in ablation or transport characteristics; this was added in quadrature.

The $^{238}U/^{206}Pb$ and $^{207}Pb/^{206}Pb$ isotopic ratios for each analysis were plotted on Tera–Wasserburg (1972) diagrams using *Isoplot* [*Ludwig*, 2003]. Because LA-ICP-MS allows one to collect many analyses from the same titanite or the same sample, the analyses often have sufficient spread in U/Pb ratios to define a $^{238}U/^{206}Pb$–$^{207}Pb/^{206}Pb$ isochron without the need to *assume* a common $^{207}Pb/^{206}Pb$ ratio from a model [e.g., *Stacey and Kramers,* 1975] model or from a low-U mineral presumed to be in equilibrium. All of the ICP dates reported here are thus $^{238}U/^{206}Pb$–$^{207}Pb/^{206}Pb$ isochrons. All date uncertainties are reported at the 95% confidence interval, assuming a Gaussian distribution of measurement errors.For samples with a broad spread of U-Pb ratios—and thus, a well-constrained common $^{207}Pb/^{206}Pb$ ratio—we report the $^{238}U/^{206}Pb$–$^{207}Pb/^{206}Pb$ isochron date. For samples with a small spread of U-Pb ratios—and thus, a poorly constrained common $^{207}Pb/^{206}Pb$ ratio—we anchor the ratio to the *Stacey–Kramers* [1975] value of 0.912 ± 0.05, appropriate for differentiation ages of 1660–400 Ma.

When combined with uncertainties in the isotopic ratios of the primary RM and the U decay constants, the date of a homogeneous unknown has an uncertainty of 2% due to secular variations in the behavior of the laser, the laser-stream transmission, or the ICPMS). Appendix Table 2 shows the isochron dates determined from *all* isotopic ratios of four different secondary RMs; Figure A2 shows two of these datasets graphically, focusing on RM Y1710C5, a titanite from Norway. The precision of the dates obtained on the secondary RMs varies from <0.5% to ~2%; the fact that some RMs yield more-precise dates than others may reflect something simple, like RM heterogeneity or U/Pb ratio, or something more complex like variations in crystal orientation or composition. The accuracies of the dates obtained on the secondary RMs differ from the TIMS-determined dates by no more than 1.1%.

The U/Pb and Pb/Pb inhomogeneity inherent in all reported titanite RMs (Table A6) degrades the precision of the measured ratios of titanite unknowns more than if one used a more-homogenous, non-matrix-matched material such as zircon or glass. *Storey et al.* [2006] demonstrated that accurate titanite ages can be obtained in this way when *rastering* grain surfaces. However, the use of zircon or glass to determine titanite dates is *not recommended* when conducting spot analyses. Figure A3 represents this conclusion.

The number of analyses of each unknown sample was dictated by the radiogenic-Pb/common-Pb ratio, number of age components evident in the data, and whether the sample date was unusual with respect to nearby samples. Typically ~30 analyses of each sample were made. The complete data are in Figure A4 and Table A7.

Appendix Table A1. Bulk compositions of modeled samples (determined by XRF at Washington State University).

	8907B6	E9805K9	P5626H2	P5626H3	P6805A2	P6808A2	P6808D2	P6817A2
SiO_2	74.8	60.7	66	73.1	59.5	70.5	71.9	63.4
TiO_2	0.49	0.65	0.96	0.21	1	0.82	0.35	1.2
Al_2O_3	13.2	18.1	15.7	15.4	20.5	12.8	14.9	14.6
FeO	2.4	5.9	4.5	1.3	6.7	5	2.8	7.6
MnO	0.3	0.12	0.05	0.01	0.23	0.12	0.08	0.15
MgO	0.3	0.4	1.4	0.6	3.2	1.4	0.8	2.2
CaO	3.9	3.4	2.6	2.9	2.5	3.4	3.8	4
Na_2O	3.6	4.7	3.1	4.3	2.4	3.5	4.2	2.6
K_2O	0.9	5.6	5.3	2	3.8	1.5	1.1	3.8
H_2O	0.37	0.8	0.45	0.45	1.8	70.5	0.67	1

Appendix Table A2. Perple_X Activity Models Used

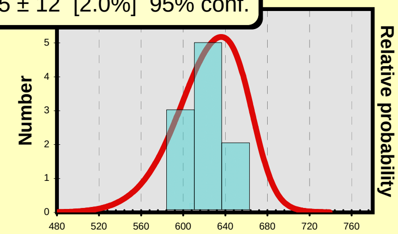
Abbreviation	Mineral	Solution Model
Bio(TCC)	biotite	Tajcmanová et al. [2009]
F	fluid	Connolly and Trommsdorff [1991]
feldspar	feldspar	Fuhrman and Lindsley [1988]
GlTrTsPg	Na-Ca amphibole	Wei and Powell [2003] and White et al. [2003]
Gt(WPH)	garnet	White et al. [2000]
Ilm(WPH)	ilmenite	White et al. [2000]
Omph(GHP)	clinopyroxene	Green et al. [2007]
Pa	paragonite	Chatterjee et al. [1975]
Pheng(HP)	K-white mica	"parameters from Thermocalc"
San	K-feldspar	Thompson and Hovis [1979]

Table 3a. Zr in titanite measurements and inferrred temperatures.

"gr", grain; "x (µm)", distance relative to previous point; "%rsd", % uncertainty expressed as 1 standard deviation
T calculated from Hayden et al. (2008) assuming 1 GPa, aTiO2 = 1; see text
±1 s calculated from %rsd and uncertainties in Hayden et al. (2008) calibration

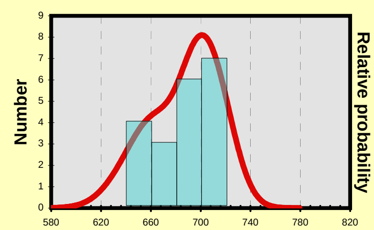
Sample name	x (µm)	Zr ppm	Zr %rsd	T (°C)	±1 s
A0713h1_gr1-3	391	7	103	622	29
	0	9	80	633	25
	28	5	153	607	38
	113	6	112	619	31
	127	4	172	602	40
A0713h1_gr4	387	15	45	656	16
	1160	5	143	610	36
A0713h1_gr5	0	8	88	629	26
	146	8	89	628	27
	1017	12	59	645	20

Tukey's Biweight Mean =
625 ± 12 [2.0%] 95% conf.



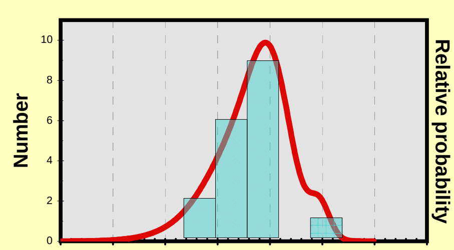
Sample name	x (µm)	Zr ppm	Zr %rsd	T (°C)	±1 s
A0714L1_gr1	0	34	21	691	15
	65	36	19	694	15
	131	19	38	664	15
	196	33	22	689	15
	261	41	17	700	15
	327	51	14	711	15
	392	56	13	715	15
	457	45	16	704	15
	522	36	19	695	15
	588	18	40	661	15
A0714L1_gr2	0	61	12	720	15
	182	16	45	656	16
	364	12	57	646	19
	546	12	54	647	19
	1275	40	18	699	15
	1639	59	12	718	15
A0714L1_gr3	662	38	19	697	15
	882	53	13	712	15
	1103	11	61	643	20
	1985	23	31	673	15

Tukey's Biweight Mean =
687 ± 13 [1.8%] 95% conf.



Sample name	x (µm)	Zr ppm	Zr %rsd	T (°C)	±1 s
A0714N1_gr1	0	15	47	654	17
	2013	10	69	638	22
A0714N1_gr2	639	9	74	635	24
A0714N1_gr3	443	18	38	663	15
	798	9	77	633	24
A0714N1_gr4	0	17	41	660	15
	176	20	35	667	15
	351	16	44	657	16
	526	10	68	638	22
	702	5	127	613	34
	1579	17	40	661	15
	1755	8	89	627	27
	2106	39	18	698	15
	2282	18	38	663	15
	2457	10	72	636	23
	2633	12	55	647	19
	2984	15	47	654	17
	3159	6	112	618	31

Tukey's Biweight Mean =
648 ± 10 [1.5%] 95% conf.

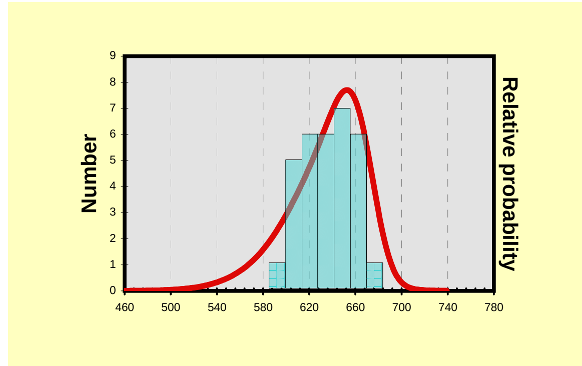


Sample name	x (µm)	Zr ppm	Zr %rsd	T (°C)	±1 s
A0714R_gr1	334	14	50	652	18

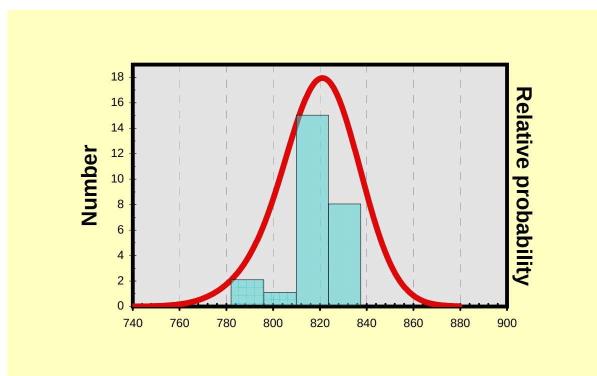
Tukey's Biweight Mean =
635.5 ± 8.3 [1.3%] 95% conf.

	1003	8	87	629	26
A0714R_gr2	537	7	106	620	30
	626	4	193	597	43
	805	4	160	604	38
A0714R_gr3	0	8	92	626	27
	92	4	174	601	40
	276	4	161	603	39
	368	7	106	620	30
	460	20	35	668	15
	552	6	122	615	33
	736	16	45	657	16
	828	12	59	644	20
A0714R_gr4	157	7	94	625	28
	314	22	32	671	15
	471	13	52	649	18
	627	16	43	658	16
	785	11	64	641	21
	942	12	56	647	19
	1099	9	78	633	24
	1256	11	60	643	20
	1413	8	88	628	26
	1570	18	38	663	15
	1727	17	40	660	15
	1883	17	42	659	15
	2040	15	47	655	17
	2197	6	127	613	34
	2355	4	178	600	41
	2512	7	98	624	28
	2669	10	70	638	23
	2826	8	82	629	25
	2983	15	45	654	16
A0715C1_gr1	43	408	2	823	15
	87	373	2	818	15
	130	393	2	821	15
	173	433	2	827	15
	216	439	2	827	15
	260	441	2	828	15
	303	404	2	822	15
	346	431	2	826	15
	390	395	2	821	15
A0715C1_gr2	0	387	2	820	15
	25	415	2	824	15
	50	396	2	821	15
	74	233	3	790	15
	99	387	2	820	15
	149	392	2	821	15
	198	372	2	817	15
	223	335	2	811	15
A0715C1_gr3	0	402	2	822	15
	19	447	2	829	15
	38	416	2	824	15
	58	426	2	826	15
	77	248	3	794	15
	96	353	2	814	15
	115	318	3	808	15
	154	420	2	825	15

635.5 ± 8.3 [1.3%] 95% conf.



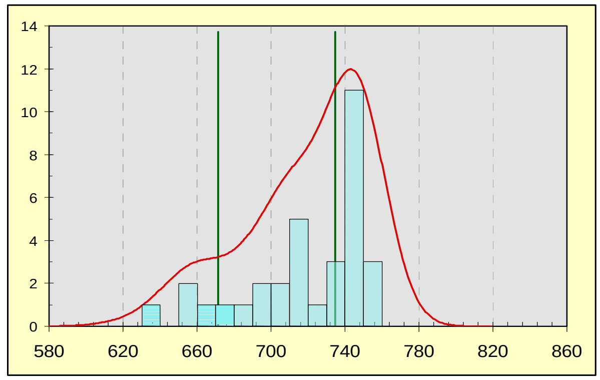
Tukey's Biweight Mean =
821.4 ± 2.3 [0.27%] 95% conf.



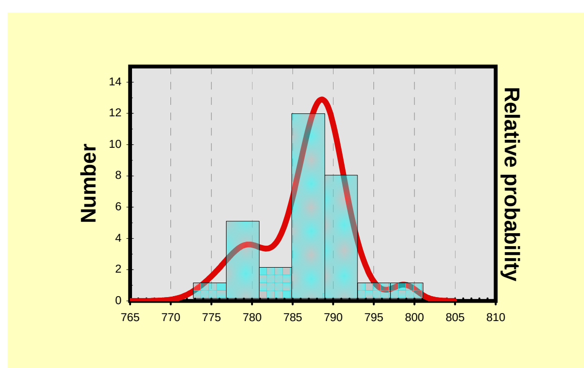
	173	374	2	818	15
A0716A1_gr. 1	0	16	38	658	15
	6	11	59	640	20
	12	68	10	725	15
	18	100	7	744	15
	24	90	8	739	15
	30	97	7	743	15
	43	108	7	749	15
	49	97	7	743	15
	55	101	7	745	15
A0716A1_gr. 2	0	39	18	697	15
	6	61	12	719	15
	12	47	15	707	15
	18	52	14	711	15
	24	54	13	714	15
	30	47	15	707	15
	36	31	23	686	15
	43	34	21	691	15
	49	52	14	712	15
	55	79	9	732	15
A0716A1_gr. 3	0	110	7	749	15
	9	123	6	755	15
	19	124	6	756	15
	28	106	7	747	15
	38	106	7	747	15
	47	92	8	740	15
	57	105	7	747	15
	76	104	7	746	15
	85	24	24	674	15
A0716A1_gr. 3	27	54	9	713	15
	37	89	6	738	15
	45	18	31	663	15
	54	14	40	651	15
	82	117	6	753	15
A0717P1_gr2	0	224	3	788	15
	53	228	3	789	15
	106	221	3	787	15
	159	227	3	789	15
	212	217	3	786	15
	264	228	3	789	15
	317	231	3	790	15
	370	248	3	794	15
	423	231	3	790	15
	476	235	3	791	15
A0717P1_gr3	0	222	3	788	15
	26	232	3	790	15
	52	271	3	799	15
	78	207	4	783	15
	104	194	4	780	15
	130	197	4	781	15
	156	177	4	775	15
	182	184	4	777	15
	208	193	4	780	15
	234	189	4	778	15
A0717P1_gr4	0	216	3	786	15

Peak	±2σ	fraction	±2σ
671	15	0.24	0.18
734	6.7	0.76	---

relative misfit = 0.819



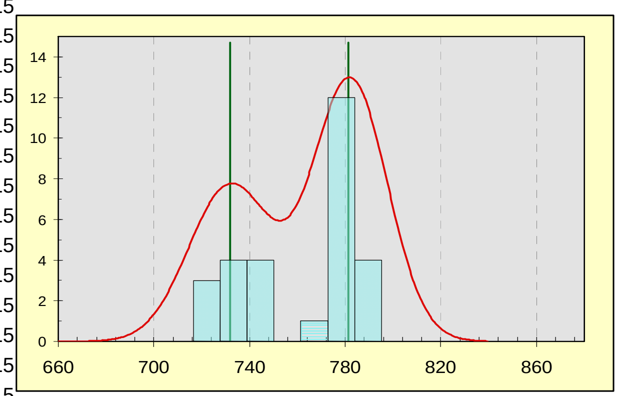
Tukey's Biweight Mean =
786.9 ± 1.9 [0.24%] 95% conf.



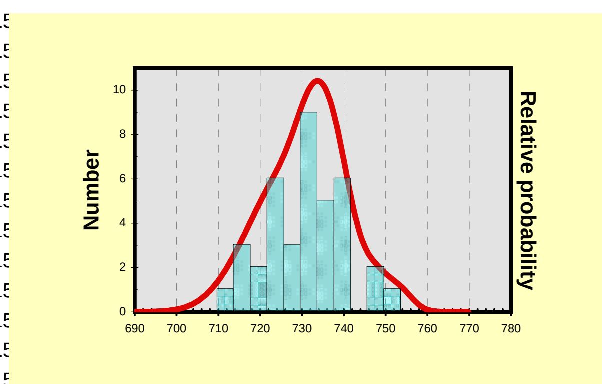
	26	217	3	786	15
	53	229	3	789	15
	79	238	3	791	15
	106	240	3	792	15
	132	208	4	784	15
	158	221	3	787	15
	185	226	3	789	15
	211	228	3	789	15
	238	217	3	786	15
A0718c1_gr1	0	96	8	742	15
	35	94	8	741	15
	70	202	4	782	15
	106	73	10	728	15
	141	63	12	721	15
	176	76	10	730	15
	211	67	11	724	15
	247	192	4	779	15
	282	189	4	779	15
	317	189	4	779	15
A0718c1_gr2	0	204	4	783	15
	24	206	4	783	15
	48	201	4	782	15
	71	62	12	720	15
	95	76	10	731	15
	119	93	8	741	15
	143	90	8	739	15
	166	79	9	732	15
A0718c1_gr3	0	202	4	782	15
	28	227	3	789	15
	55	224	3	788	15
	83	208	4	784	15
	111	213	4	785	15
	139	196	4	780	15
	166	210	4	784	15
	194	201	4	782	15
	222	200	4	782	15
	250	154	5	767	15
A0718D_gr1	0	61	12	719	15
	21	68	10	725	15
	61	65	11	723	15
	82	67	11	724	15
	103	58	12	717	15
	124	58	12	717	15
	143	67	11	724	15
	164	75	9	730	15
	185	52	14	711	15
A0718D_gr2	0	82	9	734	15
	29	69	10	725	15
	59	77	9	731	15
	88	70	10	726	15
	117	89	8	738	15
	146	79	9	732	15
	175	62	11	720	15
	204	89	8	738	15
	233	106	7	748	15

Peak	±2σ	fraction	±2σ
732	9.5	0.39	0.24
781	7.6	0.61	---

relative misfit = 0.868

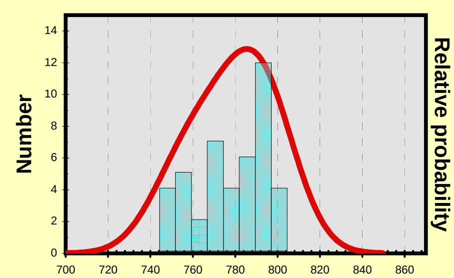


Tukey's Biweight Mean =
731.0 ± 3.1 [0.43%] 95% conf.



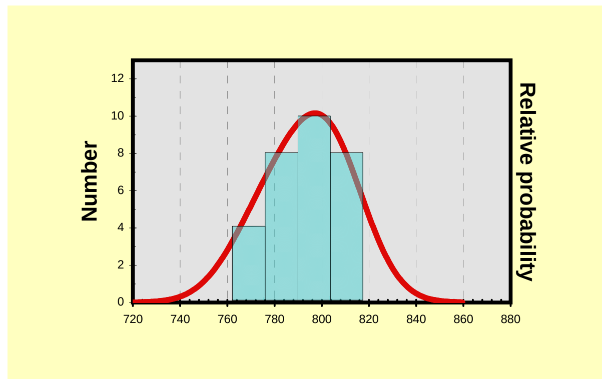
	263	85	8	736	15
A0718D_gr3	0	80	9	733	15
	21	77	9	731	15
	41	83	9	735	15
	61	88	8	738	15
	82	81	9	734	15
	103	90	8	739	15
	124	78	9	732	15
	144	81	9	734	15
	164	93	8	740	15
	185	89	8	738	15
A0718D_gr4	0	95	8	742	15
	50	76	9	730	15
	74	107	7	748	15
	99	82	9	734	15
	123	119	6	754	15
	149	82	9	734	15
	173	75	10	729	15
	198	65	11	723	15
	223	56	13	715	15
A0718F1_gr1	0	198	4	781	15
	27	144	5	764	15
	54	105	7	747	15
	82	115	6	752	15
	109	166	4	771	15
A0718F1_gr2	0	189	4	779	15
	24	237	3	791	15
	48	223	3	788	15
	71	267	3	798	15
	96	203	4	782	15
	120	274	3	799	15
	144	230	3	790	15
	167	298	3	804	15
	191	272	3	799	15
	215	252	3	795	15
A0718F1_gr3	0	220	3	787	15
	17	234	3	790	15
	34	235	3	791	15
	51	252	3	795	15
	68	254	3	795	15
	86	260	3	797	15
	103	258	3	796	15
	120	222	3	788	15
	137	219	3	787	15
	154	261	3	797	15
A0718F1_gr4	31	158	5	769	15
	63	133	5	760	15
	93	147	5	765	15
	125	161	5	770	15
	156	158	5	769	15
	188	175	4	774	15
	219	180	4	776	15
	250	222	3	788	15
	281	237	3	791	15
A0718F1_gr5	0	236	3	791	15
	15	237	3	791	15

Tukey's Biweight Mean =
779.1 ± 5.4 [0.70%] 95% conf.

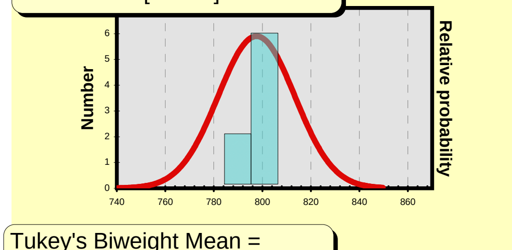


	29	176	4	775	15
	44	155	5	768	15
	59	112	6	750	15
	73	117	6	753	15
	87	113	6	751	15
	103	118	6	753	15
	117	122	6	755	15
	131	127	6	757	15
A0720B1_gr1	0	306	3	806	15
	47	286	3	802	15
	94	167	4	772	15
	141	267	3	798	15
	188	264	3	797	15
	234	272	3	799	15
	281	188	4	778	15
	328	260	3	796	15
	375	217	3	786	15
	422	343	2	813	15
A0720B1_gr2	0	280	3	801	15
	29	295	3	804	15
	59	278	3	800	15
	88	303	3	805	15
	117	304	3	805	15
	147	211	4	785	15
	176	293	3	803	15
	205	305	3	806	15
	235	277	3	800	15
	264	164	5	771	15
A0720B1_gr3	0	321	2	809	15
	21	306	3	806	15
	43	307	3	806	15
	65	218	4	787	15
	86	160	5	769	15
	107	163	5	770	15
	128	193	4	780	15
	150	183	4	777	15
	172	205	4	783	15
	193	224	3	788	15
A0720G1	0	289	3	803	15
	10	265	3	798	15
	23	291	3	803	15
	38	234	3	791	15
	51	235	3	791	15
	132	258	3	796	15
	145	261	3	797	15
	158	293	3	803	15
A0720J2-gr. 1	0	303	3	805	15
	40	316	2	808	15
	80	317	2	808	15
	120	231	3	790	15
	160	306	3	806	15
	200	329	2	810	15
	240	333	2	811	15
	280	302	3	805	15

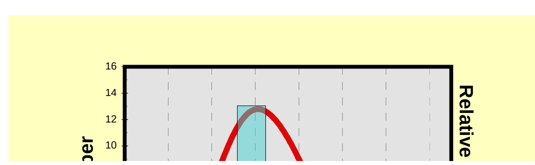
Tukey's Biweight Mean =
793.8 ± 5.3 [0.66%] 95% conf.



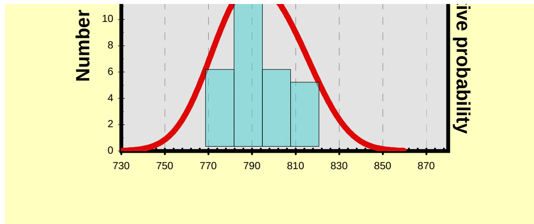
Tukey's Biweight Mean =
797.6 ± 4.6 [0.57%] 95% conf.



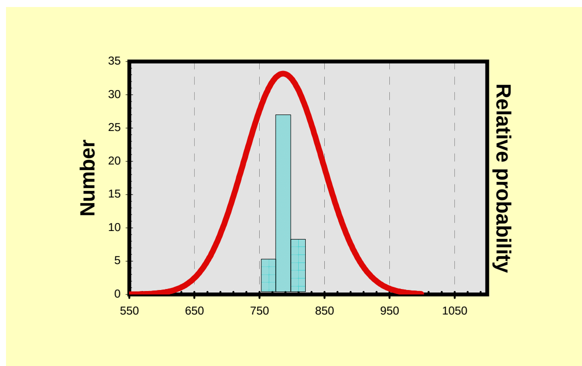
Tukey's Biweight Mean =
793.3 ± 4.9 [0.62%] 95% conf.



	320	340	2	812	15
	360	332	2	811	15
A0720J2-gr. 2	0	182	4	776	15
	9	207	4	784	15
	18	222	3	788	15
	28	221	3	787	15
	37	235	3	791	15
	46	210	4	784	15
	55	244	3	793	15
	65	231	3	790	15
	74	304	3	806	15
	83	331	2	811	15
A0720J2-gr. 3	0	210	4	784	15
	11	228	3	789	15
	23	199	4	781	15
	34	225	3	788	15
	46	213	3	785	15
	57	198	4	781	15
	68	187	4	778	15
	80	191	4	779	15
	91	214	3	785	15
	103	194	4	780	15
A0720P1_gr1	0	268	3	798	15
	49	231	3	790	15
	98	220	3	787	15
	148	189	4	779	15
	197	199	4	781	15
	246	172	4	773	15
	295	186	4	778	15
	344	210	4	784	15
	394	227	3	789	15
	443	268	3	798	15
A0720P1_gr2	0	189	4	779	15
	36	181	4	776	15
	71	163	5	770	15
	107	130	5	758	15
	142	191	4	779	15
	177	197	4	781	15
	213	189	4	778	15
	248	232	3	790	15
	284	198	4	781	15
	319	302	3	805	15
A0720P1_gr3	0	340	2	812	15
	54	254	3	795	15
	108	198	4	781	15
	162	273	3	799	15
	216	257	3	796	15
	270	168	4	772	15
	324	144	5	764	15
	378	269	3	799	15
	432	255	3	795	15
	486	246	3	793	15
A0720P1_gr4	0	181	4	776	15
	31	324	2	809	15
	61	311	2	807	15
	91	216	3	786	15

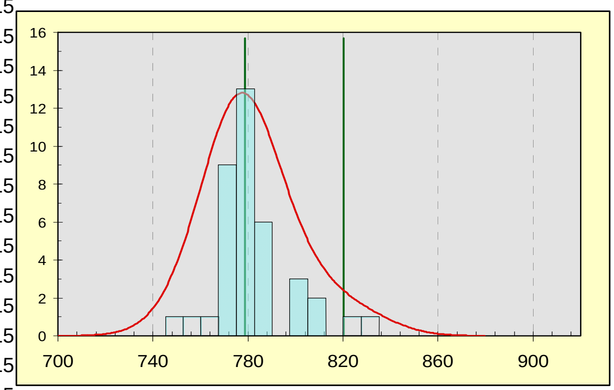


Tukey's Biweight Mean =
786.8 ± 3.9 [0.49%] 95% conf.

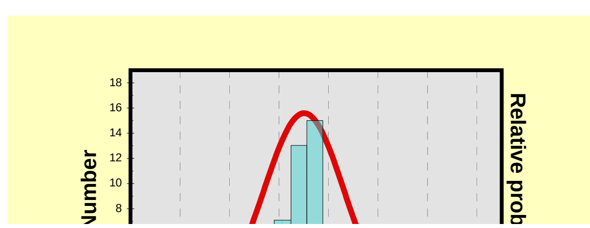


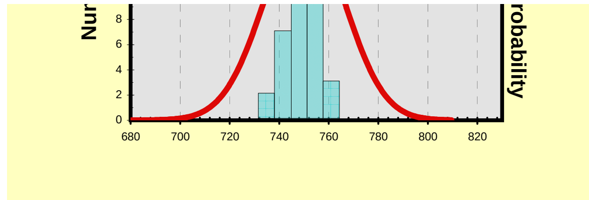
	121	217	3	786	15
	152	208	4	784	15
	183	238	3	791	15
	212	247	3	793	15
	243	241	3	792	15
	273	217	3	786	15
A0721a1-gr. 1	0	158	5	769	15
	23	159	5	769	15
	46	133	5	760	15
	0	112	6	750	15
	23	219	3	787	15
	46	188	4	778	15
	69	189	4	779	15
	92	166	4	771	15
	115	190	4	779	15
	138	215	4	786	15
A0721A1-gr. 2	0	186	4	778	15
	101	284	3	802	15
	201	435	2	827	15
	302	283	3	801	15
	402	288	2	802	15
	503	168	4	772	15
	604	308	3	806	15
	704	461	2	830	15
	805	342	2	812	15
A0721A1-gr. 3	0	174	4	774	15
	17	170	4	773	15
	34	186	4	778	15
	51	199	4	781	15
	68	193	4	780	15
	85	176	4	774	15
	103	184	4	777	15
	120	204	4	783	15
	137	182	4	776	15
A0721A1-gr. 4	0	220	3	787	15
	16	208	4	784	15
	32	214	4	785	15
	48	140	5	762	15
	64	161	5	770	15
	81	155	5	768	15
	97	179	4	776	15
	113	193	4	780	15
	129	181	4	776	15
	145	194	4	780	15
A0721E5_gr1	0	103	7	746	15
	80	122	6	755	15
	161	125	6	756	15
	242	101	7	745	15
	322	111	7	750	15
	403	116	6	752	15
	483	128	6	757	15
	563	105	7	747	15
	645	103	7	746	15
	725	108	7	748	15
A0721E5_gr2	0	106	7	747	15

Tukey's Biweight Mean =
779.0 ± 4.2 [0.53%] 95% conf.



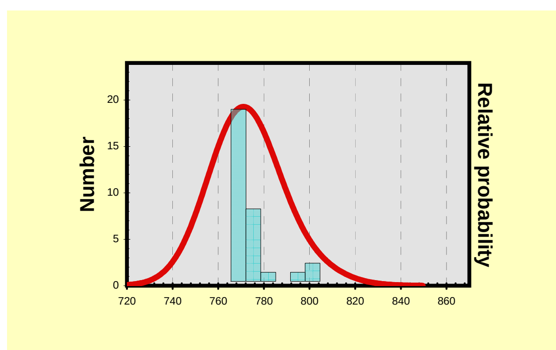
Tukey's Biweight Mean =
750.1 ± 2.0 [0.27%] 95% conf.





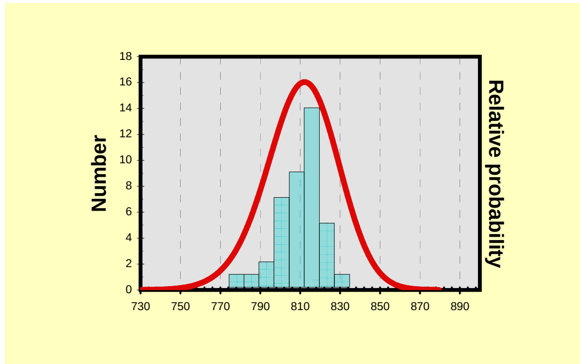
	23	98	7	743	15
	46	109	7	749	15
	69	105	7	747	15
	93	94	8	741	15
	115	98	8	743	15
	139	100	7	745	15
	162	89	8	738	15
	185	110	7	749	15
	208	79	8	732	15
A0721E5_gr3	0	100	7	745	15
	17	124	6	756	15
	34	115	6	752	15
	51	119	6	754	15
	68	114	6	751	15
	85	106	7	748	15
	102	115	6	752	15
	119	109	7	749	15
	136	102	7	746	15
	153	119	6	753	15
A0721E5_gr4	0	119	6	754	15
	25	128	6	757	15
	51	131	6	759	15
	77	133	6	759	15
	102	125	6	756	15
	128	136	6	761	15
	153	124	6	756	15
	179	127	6	757	15
	205	99	8	744	15
	230	121	6	754	15
A0722B1_gr1	0	155	5	768	15
	19	174	4	774	15
	38	156	5	768	15
	58	165	5	771	15
	77	158	5	769	15
	96	173	4	774	15
	115	165	5	771	15
	134	154	5	767	15
	153	159	5	769	15
	173	169	4	772	15
A0722B1_gr2	0	242	3	792	15
	22	154	5	767	15
	43	164	4	771	15
	65	170	4	773	15
	87	175	4	774	15
	109	168	4	772	15
	131	176	4	775	15
	153	167	5	772	15
	174	154	5	767	15
	196	156	5	768	15
A0722B1_gr3	0	276	3	800	15
	14	283	3	801	15
	40	193	4	780	15
	65	153	5	767	15
	90	161	5	770	15
	115	163	5	770	15
	141	157	5	768	15

Tukey's Biweight Mean =
770.4 ± 1.2 [0.15%] 95% conf.

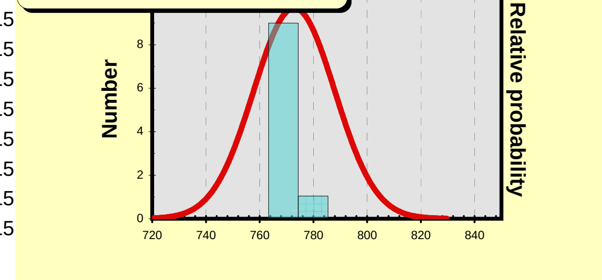


	166	150	5	766	15
	191	160	5	769	15
	216	172	4	773	15
	242	161	5	770	15
A0722D1_gr1	0	324	2	809	15
	23	295	3	804	15
	45	326	2	810	15
	68	290	3	803	15
	90	310	3	807	15
	113	291	3	803	15
	136	225	3	788	15
	159	241	3	792	15
	181	263	3	797	15
	204	182	4	776	15
A0722D1_gr2	0	344	2	813	15
	17	325	2	809	15
	35	341	2	812	15
	51	406	2	823	15
	69	378	2	818	15
	86	383	2	819	15
	103	377	2	818	15
	120	365	2	816	15
	137	319	2	808	15
	154	356	2	815	15
A0722D1_gr3	0	318	2	808	15
	37	290	3	803	15
	73	278	3	800	15
	110	396	2	821	15
	147	355	2	815	15
	183	424	2	825	15
	220	398	2	821	15
	257	442	2	828	15
	293	284	3	802	15
	330	267	3	798	15
A0722D1_gr4	0	375	2	818	15
	25	386	2	820	15
	51	371	2	817	15
	77	353	2	814	15
	102	397	2	821	15
	127	375	2	818	15
	153	361	2	816	15
	179	351	2	814	15
	204	331	2	810	15
	230	341	2	812	15
A0722G3_gr1	0	172	4	773	15
	29	172	4	773	15
	59	176	4	774	15
	88	167	4	772	15
	117	178	4	775	15
	148	174	4	774	15
	177	174	4	774	15
	206	159	5	769	15
	236	168	4	772	15
	265	167	4	772	15

Tukey's Biweight Mean =
811.3 ± 3.2 [0.39%] 95% conf.

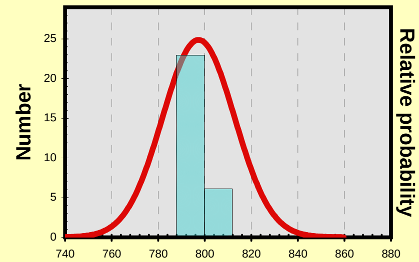


Tukey's Biweight Mean =
772.9 ± 1.3 [0.16%] 95% conf.



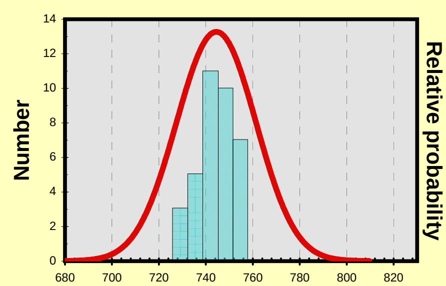
A0722G5_gr1	0	254	3	795	15
	163	266	3	798	15
	244	276	3	800	15
	326	234	3	791	15
	407	254	3	795	15
	488	297	3	804	15
	570	247	3	794	15
	651	271	3	799	15
	733	256	3	796	15
A0722G5_gr2	0	265	3	798	15
	59	311	2	807	15
	119	280	3	801	15
	177	233	3	790	15
	237	253	3	795	15
	296	267	3	798	15
	356	266	3	798	15
	414	267	3	798	15
	473	245	3	793	15
	533	255	3	795	15
A0722G5_gr3	0	294	3	804	15
	50	272	3	799	15
	100	254	3	795	15
	149	284	3	801	15
	200	270	3	799	15
	249	267	3	798	15
	299	232	3	790	15
	349	255	3	795	15
	398	280	3	801	15
	449	269	3	798	15

Tukey's Biweight Mean =
797.3 ± 1.5 [0.19%] 95% conf.



A0722H1_gr1	0	106	7	748	15
	43	106	7	747	15
	86	124	6	756	15
	130	91	8	740	15
	172	99	7	744	15
	259	109	7	749	15
	302	103	7	746	15
	388	127	6	757	15
A0722H1_gr2	0	86	8	737	15
	35	98	7	743	15
	71	97	7	743	15
	106	111	7	750	15
	141	120	6	754	15
	177	93	8	741	15
	212	112	7	750	15
	247	119	6	753	15
	283	107	7	748	15
	318	99	7	744	15
A0722H1_gr3	0	113	7	751	15
	25	97	8	743	15
	98	90	8	739	15
	123	83	9	735	15
	147	93	8	741	15
	172	99	7	744	15
	196	80	9	733	15
	221	125	6	756	15
A0722H1_gr4	0	77	10	731	15

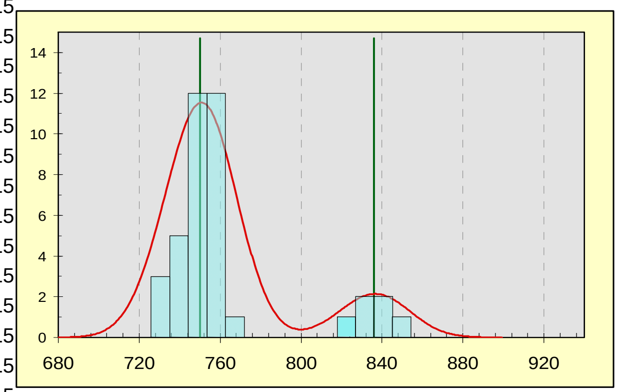
Tukey's Biweight Mean =
744.4 ± 2.7 [0.36%] 95% conf.



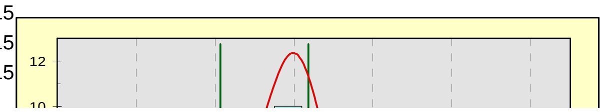
	19	77	9	731	15
	38	117	6	753	15
	56	123	6	755	15
	76	82	9	734	15
	95	105	7	747	15
	114	93	8	741	15
	132	103	7	746	15
	151	78	9	732	15
	170	89	8	738	15
A0723A1-gr. 1	0	107	7	748	15
	18	125	6	756	15
	36	123	6	755	15
	54	131	6	759	15
	72	121	6	754	15
	91	134	5	760	15
	109	140	5	762	15
	127	116	6	752	15
	145	128	6	757	15
	163	112	6	750	15
A0723A1-gr. 2	0	79	9	732	15
	8	91	8	739	15
	16	87	8	737	15
	24	77	9	731	15
	32	103	7	746	15
	40	83	9	735	15
	48	86	8	737	15
	56	92	8	740	15
	64	105	7	747	15
A0723A1-gr. 3	0	107	7	748	15
	9	131	6	759	15
	18	116	6	752	15
	27	115	6	752	15
	36	115	6	752	15
	45	114	6	751	15
	54	113	6	751	15
	63	110	7	749	15
	72	126	6	756	15
	81	93	8	740	15
A0723A1-gr. 4	0	478	2	833	15
	11	558	1	842	15
	21	559	1	842	15
	32	591	1	846	15
	43	141	5	762	15
	53	144	5	763	15
	64	404	2	822	15
	74	467	2	831	15
	85	135	5	760	15
	96	121	6	755	15
A0723D1_gr1	227	249	3	794	15
	283	286	3	802	15
	340	280	3	801	15
	396	289	3	802	15
	453	288	3	802	15
	510	145	5	764	15
A0723D1_gr2	0	137	5	761	15

Peak	±2σ	fraction	±2σ
750	5	0.85	0.29
836	12	0.15	---

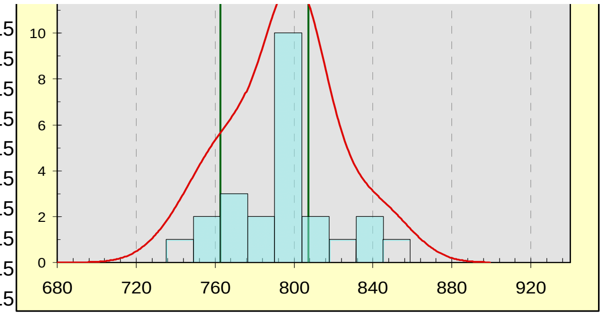
relative misfit = 0.712



Tukey's Biweight Mean =
794.9 ± 9.8 [1.2%] 95% conf.

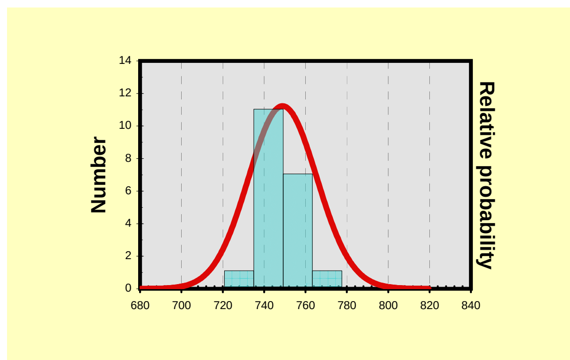


	61	197	4	781	15
	122	164	5	771	15
	183	150	5	766	15
	365	256	3	795	15
	426	291	3	803	15
	487	301	3	805	15
	548	281	3	801	15
A0723D1_gr3	0	259	3	796	15
	60	301	3	805	15
	120	225	3	788	15
	179	382	2	819	15
	239	656	1	852	15
	299	120	6	754	15
	359	92	8	740	15
	418	485	2	833	15
	478	541	2	840	15
	538	293	3	803	15



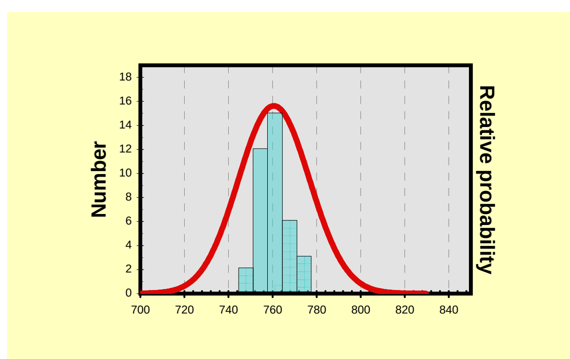
A0724H_gr1	0	126	6	756	15
	102	121	6	754	15
	204	108	7	748	15
	306	125	6	756	15
	408	81	9	734	15
	511	114	6	751	15
	613	109	7	749	15
	715	90	8	739	15
	818	98	7	743	15
	920	103	7	746	15
A0724H_gr2	0	115	6	752	15
	75	106	7	747	15
	150	101	7	745	15
	224	109	7	749	15
	299	128	6	757	15
	374	109	7	749	15
	449	102	7	745	15
	523	116	6	752	15
	598	155	5	768	15
	673	94	8	741	15

Tukey's Biweight Mean =
749.0 ± 3.3 [0.44%] 95% conf.



A0725G1_gr1	0	142	5	763	15
	55	141	5	763	15
	110	140	5	762	15
	220	149	5	766	15
	275	119	6	754	15
	330	121	6	754	15
	386	121	6	754	15
	441	141	5	763	15
	496	136	5	761	15
	551	139	5	762	15
	606	131	6	759	15
	661	127	6	757	15
	716	149	5	766	15
	771	151	5	766	15
	826	180	4	776	15
	881	135	5	760	15
	936	127	6	757	15
	991	141	5	763	15

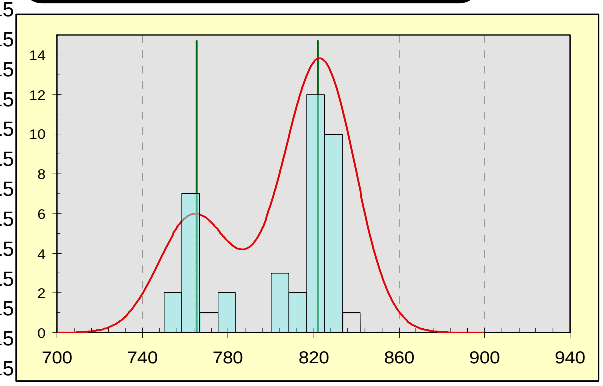
Tukey's Biweight Mean =
760.6 ± 2.0 [0.27%] 95% conf.



	1047	142	5	763	15
A0725G1_gr2	0	133	6	759	15
	43	131	6	759	15
	86	128	6	757	15
	129	118	6	753	15
	172	129	6	758	15
	215	145	5	764	15
	258	119	6	754	15
	301	124	6	756	15
	344	110	7	750	15
	387	140	5	762	15
	430	108	6	748	15
	474	128	6	757	15
	517	149	5	765	15
	603	130	6	758	15
	646	171	4	773	15
	689	159	5	769	15
	732	154	5	767	15
	775	172	4	773	15
	818	134	5	760	15
A0725K_gr1	0	408	2	823	15
	40	514	2	837	15
	81	309	2	806	15
	121	135	5	760	15
	161	139	5	762	15
	202	144	5	764	15
	242	129	6	758	15
	282	145	5	764	15
	323	143	5	763	15
	363	193	4	780	15
A0725K_gr2	0	386	2	820	15
	19	288	3	802	15
	37	193	4	780	15
	56	456	2	830	15
	75	473	2	832	15
	93	399	2	822	15
	111	416	2	824	15
	131	463	2	831	15
	149	303	3	805	15
	167	450	2	829	15
A0725K_gr3	0	448	2	829	15
	26	393	2	821	15
	52	423	2	825	15
	78	396	2	821	15
	104	436	2	827	15
	130	406	2	823	15
	155	425	2	825	15
	182	418	2	824	15
	208	416	2	824	15
	233	357	2	815	15
A0725K_gr4	0	427	2	826	15
	33	415	2	824	15
	66	378	2	818	15
	99	169	4	772	15
	132	132	6	759	15
	165	430	2	826	15

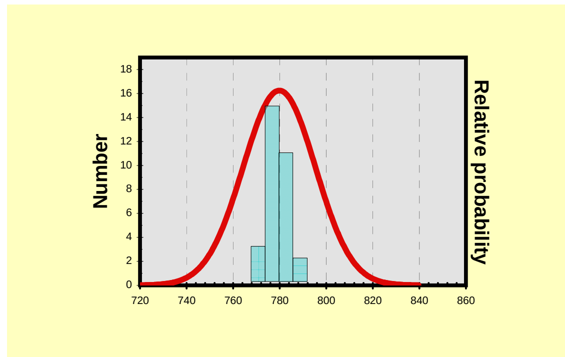
Peak	±2σ	fraction	±2σ
765	9	0.30	0.17
821	6	0.70	---

relative misfit = 0.828



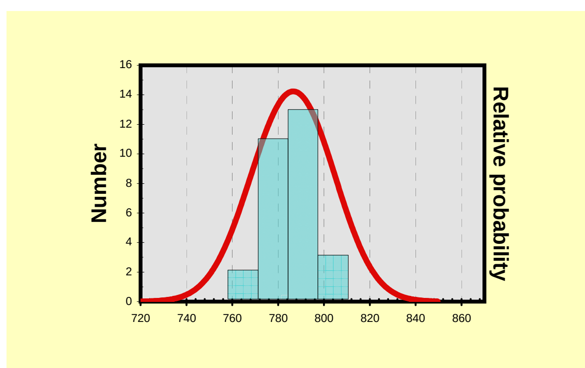
	198	342	2	812	15
	232	369	2	817	15
	264	147	5	765	15
	297	125	6	756	15
A0727h1_gr1	0	200	4	782	15
	20	193	4	780	15
	40	191	4	779	15
	59	193	4	780	15
	79	192	4	779	15
	98	194	4	780	15
	118	223	3	788	15
	137	194	4	780	15
	157	210	4	784	15
	177	196	4	780	15
A0727h1_gr2	0	190	4	779	15
	16	205	4	783	15
	43	190	4	779	15
	74	186	4	777	15
	95	186	4	777	15
	123	157	5	768	15
	140	206	4	783	15
	157	182	4	776	15
	181	201	4	782	15
	205	202	4	782	15
	235	169	4	772	15
A0727h1_gr3	0	162	5	770	15
	14	201	4	782	15
	28	210	4	784	15
	43	198	4	781	15
	57	219	3	787	15
	71	193	4	780	15
	85	191	4	779	15
	100	206	4	783	15
	114	187	4	778	15
	128	181	4	776	15

Tukey's Biweight Mean =
780.0 ± 1.4 [0.19%] 95% conf.



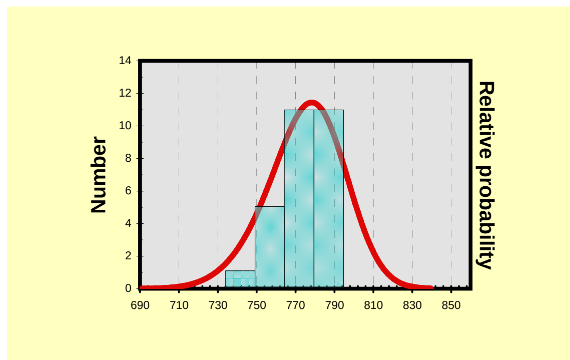
A0801M_gr2	0	199	4	781	15
	22	198	4	781	15
	65	218	3	786	15
	86	197	4	781	15
	108	245	3	793	15
	129	232	3	790	15
	151	243	3	793	15
	172	253	3	795	15
	194	277	3	800	15
A0801M_gr3	0	258	3	796	15
	9	289	3	803	15
	17	232	3	790	15
	26	228	3	789	15
	34	260	3	796	15
	44	242	3	792	15
	52	243	3	793	15
	61	279	3	800	15
	70	237	3	791	15
	78	247	3	794	15
A0801M_gr4	0	191	4	779	15

Tukey's Biweight Mean =
786.4 ± 3.9 [0.49%] 95% conf.

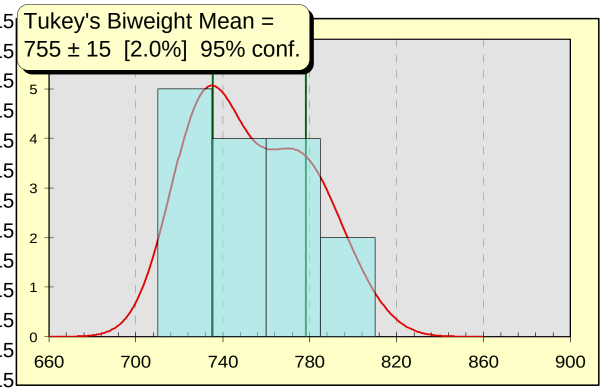


	14	194	4	780	15
	28	184	4	777	15
	43	164	5	771	15
	57	195	4	780	15
	71	195	4	780	15
	85	180	4	776	15
	99	176	4	775	15
	114	168	4	772	15
	128	157	5	768	15
A0805C1_gr. 1	0	200	4	782	15
	86	164	5	771	15
	128	125	6	756	15
	171	117	6	753	15
	214	250	3	794	15
	257	184	4	777	15
	300	167	4	772	15
	342	162	5	770	15
	385	133	6	759	15
A0805C1_gr. 2	0	194	4	780	15
	18	223	3	788	15
	37	221	4	787	15
	55	218	4	786	15
	74	220	3	787	15
	92	196	4	781	15
	111	166	5	771	15
	129	132	6	759	15
	148	217	4	786	15
	166	173	4	774	15
A0805C1_gr. 3	0	177	4	775	15
	16	181	4	776	15
	32	191	4	779	15
	48	87	8	737	15
-	80	188	4	778	15
	96	224	3	788	15
	112	129	6	758	15
	128	233	3	790	15
	144	214	4	785	15
E9804D12-gr.1	0	274	3	800	15
	15	67	11	724	15
	30	89	8	739	15
	45	77	9	731	15
	60	93	8	741	15
E9804D12-gr.3	0	67	10	724	15
	15	130	6	758	15
	30	177	4	775	15
	45	152	5	767	15
E9804D12-gr.4	0	221	3	787	15
	27	79	9	732	15
E9804D12-gr.5	0	185	4	777	15
	12	181	4	776	15
	25	98	7	743	15
	38	72	9	728	15
E9805K-gr. 1	0	357	2	815	15
	13	354	2	814	15

Tukey's Biweight Mean =
775.8 ± 5.1 [0.66%] 95% conf.



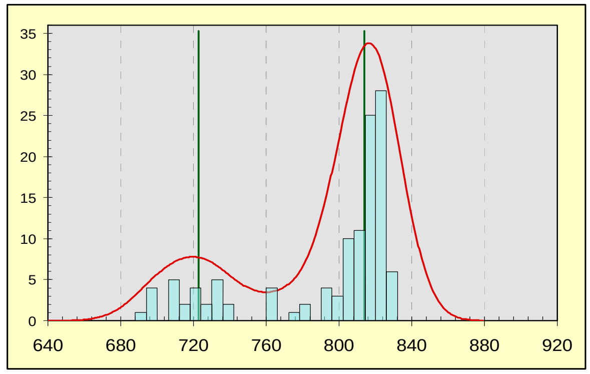
Tukey's Biweight Mean =
755 ± 15 [2.0%] 95% conf.



	26	350	2	814	15
	39	356	2	815	15
	52	336	2	811	15
	65	335	2	811	15
	78	320	2	809	15
	91	319	2	808	15
	104	62	11	720	15
	117	83	9	735	15
E9805K-gr. 2	0	58	12	717	15
	8	187	4	778	15
	16	308	2	806	15
	24	275	3	800	15
	32	301	3	805	15
	40	295	3	804	15
	48	302	3	805	15
	56	50	14	710	15
	64	48	15	708	15
	73	63	11	721	15
E9805K-gr. 3	7	62	11	720	15
	14	39	18	698	15
	22	40	18	699	15
	29	50	14	710	15
	36	38	18	697	15
	43	48	15	708	15
	50	40	18	699	15
	58	35	20	693	15
	65	48	15	707	15
E9805K-gr. 4	0	91	8	739	15
	5	82	9	734	15
	10	87	8	737	15
	15	77	9	731	15
	20	80	9	733	15
	25	76	9	730	15
	30	57	13	716	15
	35	75	10	730	15
	40	73	10	729	15
	45	64	11	722	15
E9805K_gr5		280	3	801	15
		386	2	820	15
		417	2	824	15
		420	2	825	15
		336	2	811	15
		396	2	821	15
		381	2	819	15
		421	2	825	15
		416	2	824	15
		375	2	818	15
E9805K_gr6		355	2	815	15
		377	2	818	15
		392	2	821	15
		391	2	820	15
		373	2	818	15
		235	3	791	15
		407	2	823	15
		328	2	810	15
		372	2	817	15
		407	2	823	15

Peak	±2σ	fraction	±2σ
723	6	0.24	0.09
814	3	0.76	---

relative misfit = 0.619

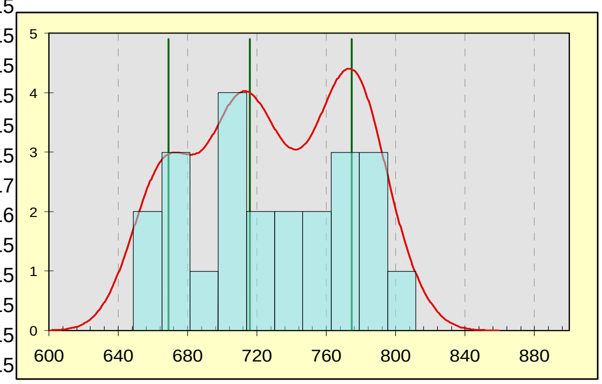


E9805K_gr7		141	5	763	15
		139	5	762	15
		322	2	809	15
		447	2	828	15
		356	2	815	15
		398	2	821	15
		408	2	823	15
		414	2	824	15
		441	2	828	15
		314	2	807	15
E9805K_gr8		352	2	814	15
		305	3	806	15
		207	4	784	15
		246	3	793	15
		375	2	818	15
		439	2	827	15
		378	2	818	15
		391	2	820	15
		391	2	820	15
		296	3	804	15
E9805K_gr9	0	280	3	801	15
	23	386	2	820	15
	45	417	2	824	15
	69	420	2	825	15
	92	336	2	811	15
	115	396	2	821	15
	138	381	2	819	15
	161	421	2	825	15
	183	416	2	824	15
	206	375	2	818	15
E9805K_gr10	0	355	2	815	15
	31	377	2	818	15
	61	392	2	821	15
	92	391	2	820	15
	122	373	2	818	15
	154	235	3	791	15
	184	407	2	823	15
	215	328	2	810	15
	245	372	2	817	15
	276	407	2	823	15
E9805K_gr11	0	141	5	763	15
	30	139	5	762	15
	60	322	2	809	15
	90	447	2	828	15
	120	356	2	815	15
	150	398	2	821	15
	180	408	2	823	15
	211	414	2	824	15
	241	441	2	828	15
	271	314	2	807	15
E9805K_gr12	0	352	2	814	15
	39	305	3	806	15
	78	207	4	784	15
	116	246	3	793	15
	155	375	2	818	15
	195	439	2	827	15
	234	378	2	818	15

	272	391	2	820	15
	311	391	2	820	15
	350	296	3	804	15
E9816F2 - gr.1	0	76	10	730	15
	7	46	15	706	15
	14	146	5	765	15
	22	138	5	761	15
	29	43	15	703	15
E9816F2 - gr.2	0	25	28	677	15
	12	75	9	730	15
	23	214	3	785	15
	36	62	11	720	15
	48	53	13	712	15
E9816F2 - gr.3	0	36	19	693	15
	11	15	46	655	17
	22	16	44	657	16
	32	296	3	804	15
	43	204	4	783	15
E9816F2 - gr.4	0	100	7	745	15
	13	51	14	711	15
	27	197	4	781	15
	40	183	4	777	15
E9816F2 - gr.5	0	128	6	757	15
	13	21	33	669	15
	26	173	4	774	15
	39	21	33	670	15

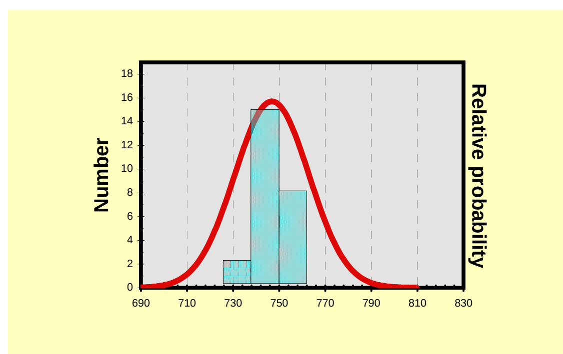
Peak	±2σ	fraction	±2σ
669	16	0.23	0.22
716	13	0.35	0.27
775	11	0.41	---

relative misfit = 0.638



E9817A5 - gr.1	0	93	8	741	15
	55	98	7	743	15
	111	115	6	751	15
	166	103	7	746	15
	221	107	7	748	15
E9817A5 - gr.2	0	105	7	747	15
	24	120	6	754	15
	50	122	6	755	15
	74	112	6	750	15
	99	84	8	735	15
E9817A5 - gr.3	0	125	6	756	15
	22	124	6	755	15
	43	122	6	755	15
	64	102	7	745	15
	86	102	7	745	15
E9817A5 - gr.4	0	107	7	748	15
	20	100	7	744	15
	40	97	7	743	15
	61	106	7	748	15
	81	98	7	743	15
E9817A5 - gr.5	0	113	6	751	15
	39	111	6	750	15
	77	93	8	741	15
	116	90	8	739	15
	155	87	8	737	15

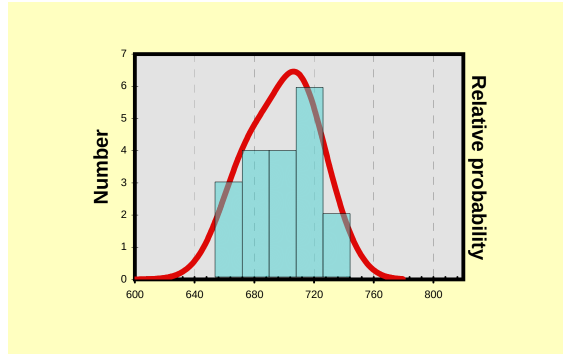
Tukey's Biweight Mean =
746.8 ± 2.5 [0.34%] 95% conf.



E9819D2 - gr.1	0	28	28	682	15
	89	17	47	659	17
E9819D2 - gr.2	0	55	13	714	15

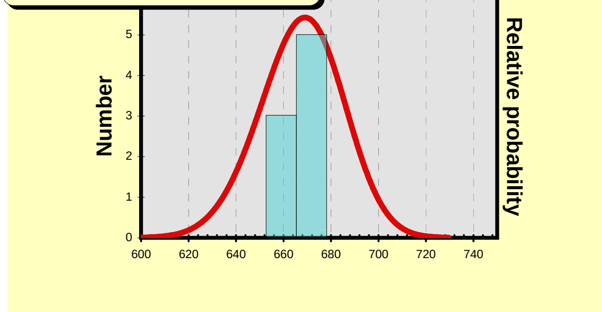
Tukey's Biweight Mean =
699 ± 11 [1.6%] 95% conf.

	11	48	15	707	15
	22	28	26	682	15
E9819D2 - gr.3	0	55	13	714	15
	6	20	35	667	15
	11	83	9	735	15
	17	78	9	732	15
E9819D2 - gr.4	0	58	12	716	15
	9	50	14	710	15
	19	55	13	714	15
	29	43	16	702	15
	38	41	17	700	15
E9819D2 - gr.5	0	50	14	709	15
	6	37	19	695	15
	12	25	28	677	15
	18	30	23	685	15
	25	21	34	669	15



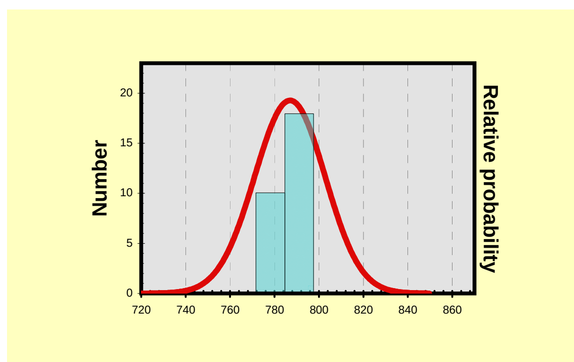
E1626E - gr.1	0	25	27	678	15
	20	22	32	671	15
	39	23	31	673	15
	80	23	31	673	15
E1626E - gr.2	61	23	30	674	15
E1626E - gr.3	22	16	45	656	16
	90	17	42	660	16
E1626E - gr.4	45	15	47	654	17

Tukey's Biweight Mean =
667.6 ± 8.1 [1.2%] 95% conf.



G9704G1_gr1	0	229	3	789	15
	101	175	4	774	15
	201	221	3	787	15
	302	234	3	790	15
	403	238	3	791	15
	503	232	3	790	15
	604	210	4	784	15
	705	210	4	784	15
	805	207	4	784	15
	906	221	3	787	15
G9704G1_gr2	0	240	3	792	15
	67	245	3	793	15
	134	240	3	792	15
	201	232	3	790	15
	267	212	4	785	15
	334	259	3	796	15
	401	248	3	794	15
	468	225	3	788	15
	535	223	3	788	15
	602	176	4	775	15
G9704G1_gr3	0	200	4	782	15
	192	223	3	788	15
	256	221	3	787	15
	320	215	3	786	15
	384	231	3	790	15
	448	197	4	781	15
	512	194	4	780	15
	576	207	4	784	15

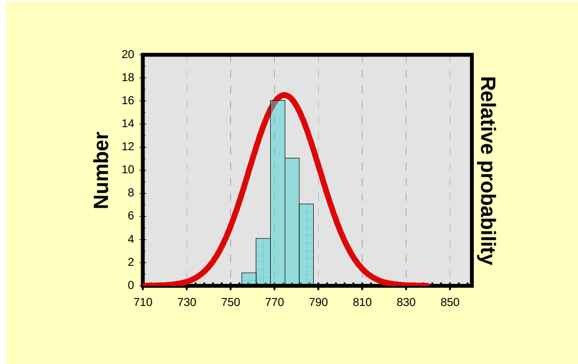
Tukey's Biweight Mean =
787.0 ± 2.0 [0.26%] 95% conf.



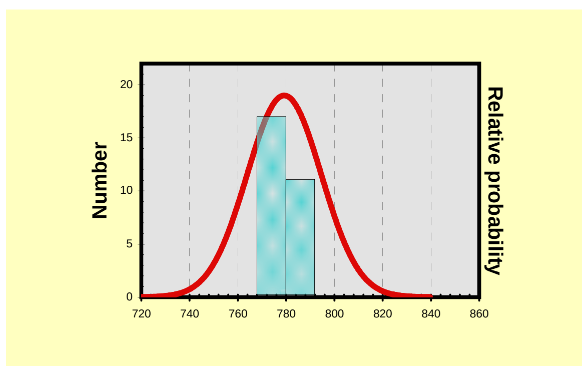
G9705r1_gr1	0	184	4	777	15
	113	167	4	772	15

Tukey's Biweight Mean =
774.6 ± 1.9 [0.25%] 95% conf.

	227	168	4	772	15
	340	164	5	771	15
	453	171	4	773	15
	566	183	4	777	15
	680	161	5	770	15
	793	164	5	771	15
	907	181	4	776	15
	1020	177	4	775	15
G9705r1_gr2	27	224	3	788	15
	53	173	4	774	15
	80	184	4	777	15
	107	182	4	776	15
	134	164	5	771	15
	161	172	4	773	15
	188	163	4	770	15
	214	171	4	773	15
	241	177	4	775	15
G9705r1_gr3	0	137	5	761	15
	41	188	4	778	15
	83	204	4	783	15
	123	184	4	777	15
	164	157	5	768	15
	206	179	4	776	15
	246	165	4	771	15
	287	183	4	777	15
	329	202	4	782	15
	370	216	3	786	15
G9705r1_gr4	0	142	5	763	15
	26	154	5	767	15
	51	152	5	766	15
	77	172	4	773	15
	103	201	4	782	15
	127	160	5	769	15
	153	210	4	784	15
	179	201	4	782	15
	204	192	4	779	15
	230	177	4	775	15
G9705Y1_gr1	0	199	4	781	15
	47	190	4	779	15
	94	189	4	778	15
	140	190	4	779	15
	187	192	4	779	15
	279	212	4	785	15
	326	211	4	785	15
	373	202	4	782	15
	419	200	4	782	15
G9705Y1_gr2	0	183	4	777	15
	61	178	4	775	15
	122	191	4	779	15
	183	184	4	777	15
	244	180	4	776	15
	305	194	4	780	15
	366	201	4	782	15
	427	180	4	776	15
	488	173	4	774	15
	549	197	4	781	15

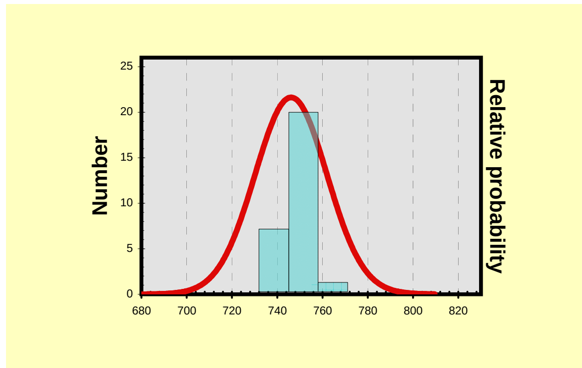


Tukey's Biweight Mean =
779.2 ± 1.4 [0.18%] 95% conf.



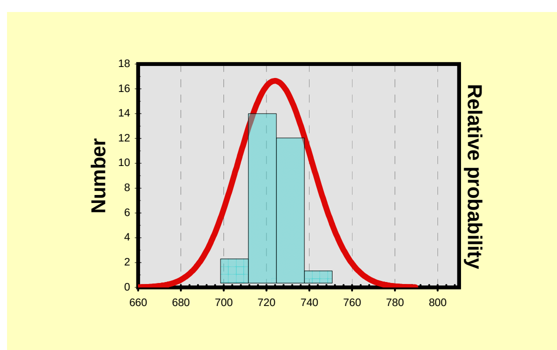
G9705Y1_gr3	0	213	3	785	15
	40	200	4	782	15
	81	188	4	778	15
	121	210	4	784	15
	161	193	4	780	15
	201	194	4	780	15
	241	175	4	774	15
	281	181	4	776	15
	362	166	4	771	15

Tukey's Biweight Mean =
746.1 ± 1.9 [0.26%] 95% conf.



G9707N1_gr1	0	110	7	749	15
	57	105	7	747	15
	114	104	7	746	15
	171	89	8	739	15
	229	82	9	734	15
	286	102	7	745	15
	343	114	6	751	15
	400	104	7	746	15
	457	106	7	747	15
	514	145	5	764	15
G9707N1_gr2	0	103	7	746	15
	98	104	7	746	15
-	295	82	9	734	15
	492	108	7	748	15
	590	111	7	750	15
	689	100	7	745	15
	787	102	7	745	15
	886	110	6	749	15
G9707N1_gr3	0	103	7	746	15
	68	104	7	747	15
	136	94	8	741	15
	204	82	9	734	15
	273	109	7	749	15
	341	98	7	744	15
	409	110	7	749	15
	477	107	7	748	15
	545	111	7	750	15
	613	110	7	749	15

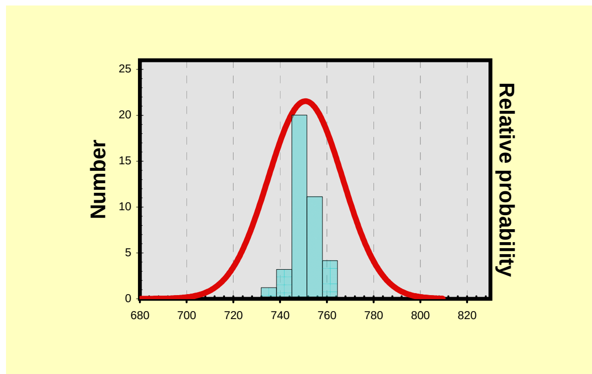
Tukey's Biweight Mean =
724.0 ± 3.3 [0.46%] 95% conf.



G9708Q4_gr. 1	0	73	10	728	15
	62	54	14	713	15
	125	49	15	708	15
	187	47	15	706	15
	249	62	12	720	15
-	374	63	12	721	15
	437	58	13	717	15
	499	72	10	728	15
	561	84	9	735	15
G9708Q4_gr. 2	0	79	9	732	15
	66	65	11	722	15
	133	65	11	722	15
	199	74	10	729	15
	266	76	10	730	15
	332	58	12	717	15
	399	63	11	721	15
	465	69	10	725	15
	532	62	12	720	15

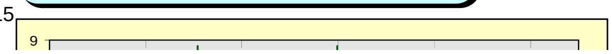
	598	60	12	719	15
G9708Q4_gr. 3	0	75	10	729	15
	103	59	12	718	15
	207	65	11	723	15
	310	82	9	734	15
	414	58	12	717	15
	517	100	7	744	15
	621	71	10	727	15
	724	62	12	720	15
	828	84	9	735	15
	931	85	9	736	15
K1727C1_gr1	0	107	7	748	15
	5	130	6	758	15
	11	112	6	750	15
	16	130	6	758	15
	22	142	5	763	15
	27	143	5	763	15
	32	131	6	759	15
	38	113	6	751	15
	43	127	6	757	15
K1727C1_gr2	0	120	6	754	15
	14	127	6	757	15
	29	102	7	746	15
	43	119	6	754	15
	58	111	6	750	15
	72	110	7	749	15
	87	103	7	746	15
	101	92	8	740	15
	115	98	7	743	15
	130	114	6	751	15
K1727C1_gr3	0	110	7	749	15
	22	111	6	750	15
	44	98	7	743	15
	66	110	7	750	15
	88	104	7	746	15
	110	105	7	747	15
	132	117	6	753	15
	154	79	9	733	15
	176	108	7	748	15
	198	110	7	749	15
K1727C1_gr4	0	116	6	752	15
	14	113	6	751	15
	29	103	7	746	15
	43	117	6	753	15
	57	114	6	751	15
	72	112	6	750	15
	86	108	7	748	15
	100	124	6	756	15
	115	116	6	752	15
	129	125	6	756	15
K1803A1-gr.1	0	217	3	786	15
	33	203	4	782	15
	67	168	4	772	15
	100	162	4	770	15
K1803A1-gr.2	0	215	4	786	15

Tukey's Biweight Mean =
750.9 ± 1.8 [0.24%] 95% conf.

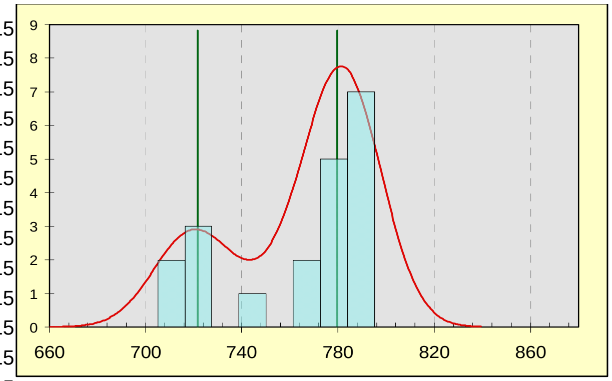


Peak	±2σ	fraction	±2σ
722	14	0.27	0.24
780	8	0.73	---

relative misfit = 0.822



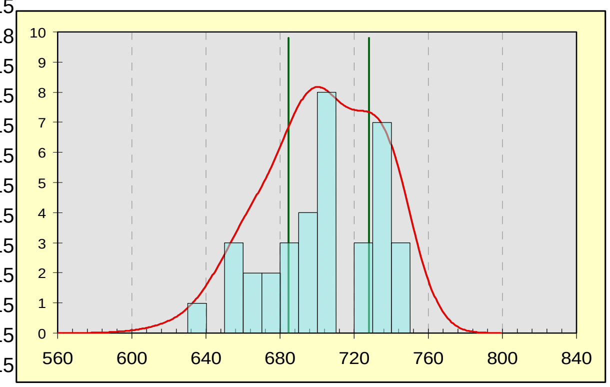
	22	190	4	779	15
	45	172	4	773	15
	68	109	7	749	15
	90	216	4	786	15
K1803A1-gr.3	0	199	4	781	15
	19	208	4	784	15
	38	217	3	786	15
	57	174	4	774	15
K1803A1-gr.4	20	56	13	715	15
	41	52	13	712	15
	61	62	11	720	15
	82	71	10	727	15
KJ1803A1-gr.5	31	66	10	723	15
	47	224	3	788	15
	62	230	3	790	15



K7718I1_gr1	0	65	11	723	15
	85	76	9	730	15
	170	68	10	725	15
	255	21	34	669	15
	425	17	41	660	15
	510	14	50	651	18
	681	87	8	737	15
	765	81	9	734	15
K7718I1_gr2	0	49	14	709	15
	21	36	20	694	15
	42	18	39	662	15
	63	37	19	695	15
	84	39	18	698	15
	104	27	27	680	15
	126	30	23	686	15
	147	36	20	695	15
	168	42	17	701	15
	189	42	17	701	15
K7718I1_gr3	0	95	7	742	15
	19	73	10	728	15
	39	90	8	739	15
	78	84	8	735	15
	97	92	8	740	15
	117	45	16	705	15
	136	44	16	703	15
	156	10	69	638	22
	175	16	44	657	16
K7718I1_gr4	0	95	8	742	15
	44	42	17	701	15
	133	32	20	689	15
	177	84	7	735	15
	222	22	32	672	15
	266	28	26	682	15
	310	47	15	707	15
	355	78	9	732	15
	399	44	16	704	15

Peak	±2σ	fraction	±2σ
685	9	0.56	0.29
728	11	0.44	---

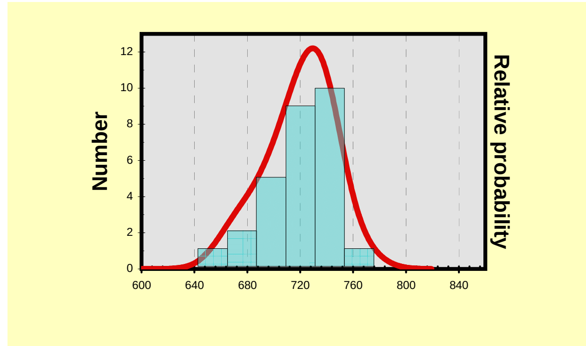
relative misfit = 0.900



K7718I2_gr1	80	77	9	731	15
	161	106	7	747	15
	241	85	8	736	15
	402	87	8	737	15

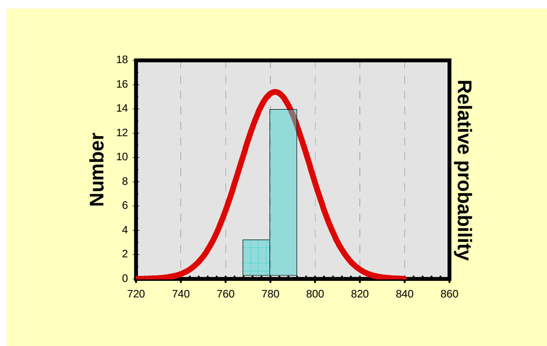
Tukey's Biweight Mean =
722.3 ± 9.0 [1.2%] 95% conf.

	482	80	9	733	15
	563	84	8	736	15
	643	58	13	717	15
	724	84	9	735	15
K7718I2_gr2	188	26	27	679	15
	235	61	12	719	15
	282	62	11	721	15
	329	48	15	708	15
	376	60	12	719	15
	423	46	15	706	15
K7718I2_gr3	0	51	14	710	15
	169	52	14	711	15
	211	37	19	696	15
	253	32	22	689	15
K7718I2_gr4	75	95	7	742	15
	214	99	7	744	15
	335	75	9	730	15
	455	86	8	737	15
	531	19	37	665	15
	640	101	7	745	15
	723	72	10	727	15
	835	155	5	768	15
	911	36	19	694	15
	974	22	32	671	15



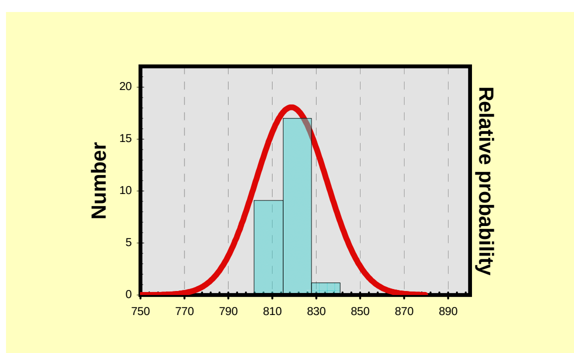
M8711c1	0	170	4	773	15
	21	196	4	780	15
	43	204	4	783	15
	65	215	4	786	15
	86	200	4	782	15
	153	200	4	782	15
	179	227	3	789	15
	203	206	4	783	15
	228	197	4	781	15
	252	205	4	783	15
	297	200	4	782	15
	324	213	4	785	15
	352	229	3	789	15
	384	207	4	784	15
	407	176	4	774	15
	431	197	4	781	15
	453	190	4	779	15

Tukey's Biweight Mean =
782.1 ± 2.1 [0.27%] 95% conf.



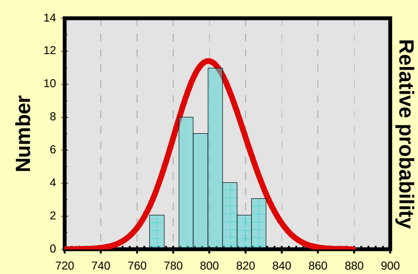
M8714g_gr1	0	342	2	812	15
	37	370	2	817	15
	74	367	2	817	15
	111	380	2	819	15
	148	386	2	820	15
	186	418	2	824	15
	223	417	2	824	15
	260	397	2	821	15
	297	366	2	816	15
	334	344	2	813	15
M8714g_gr2	0	301	3	805	15
	66	338	2	812	15
	132	333	2	811	15
	198	337	2	812	15

Tukey's Biweight Mean =
818.7 ± 2.5 [0.31%] 95% conf.



	264	354	2	814	15
	330	351	2	814	15
	396	357	2	815	15
	528	368	2	817	15
	594	367	2	817	15
M8714g_gr3	47	436	2	827	15
	70	431	2	826	15
	93	407	2	823	15
	117	414	2	824	15
	140	407	2	823	15
	163	433	2	826	15
	187	456	2	830	15
	210	425	2	825	15

Tukey's Biweight Mean =
800.4 ± 4.3 [0.54%] 95% conf.

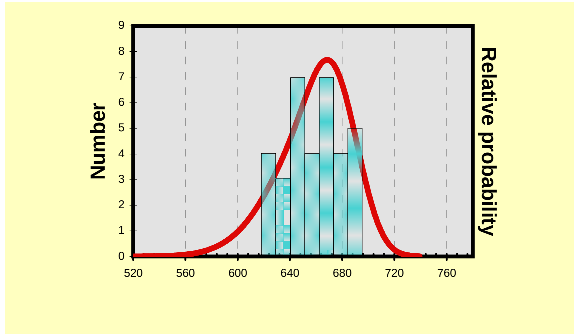


M8714J_gr1	0	321	2	809	15
	30	300	3	805	15
	61	330	2	810	15
	90	304	3	805	15
	120	300	3	805	15
	151	172	4	773	15
	181	316	2	808	15
	211	424	2	825	15
	242	361	2	816	15
	272	369	2	817	15
M8714J_gr2	0	219	3	787	15
	21	422	2	825	15
	43	420	2	825	15
	65	382	2	819	15
	108	298	3	804	15
	131	179	4	776	15
	152	253	3	795	15
	0	293	3	803	15
	21	259	3	796	15
M8714J_gr3	0	238	3	792	15
	23	283	3	801	15
	47	285	3	802	15
	70	284	3	801	15
	93	224	3	788	15
	115	281	3	801	15
	138	245	3	793	15
	161	219	3	787	15
	185	260	3	797	15
	208	354	2	814	15
M8714J_gr4	0	251	3	794	15
	12	235	3	791	15
	26	277	3	800	15
	38	249	3	794	15
	75	249	3	794	15
	88	226	3	789	15
	101	228	3	789	15
	113	233	3	790	15

Tukey's Biweight Mean =
659.2 ± 7.8 [1.2%] 95% conf.

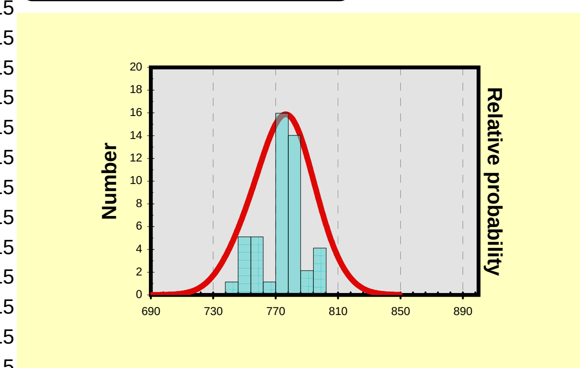
P5630B2_gr1	141	23	31	673	15
	636	9	74	635	24
P5630B2_gr2	128	11	64	641	21
	385	18	40	661	15
	513	18	40	661	15

	642	12	59	645	20
	1155	26	27	679	15
P5630B2_gr3	290	8	95	626	28
	435	13	56	648	19
	580	8	93	627	28
	870	19	37	666	15
	1015	7	94	626	28
	1160	20	36	666	15
	1306	22	33	671	15
P5630B2_gr4	0	29	24	684	15
	246	22	32	672	15
	492	9	81	632	25
	739	17	42	659	16
	985	12	60	645	20
	1230	22	33	670	15
	1476	16	44	657	16
	1723	24	29	675	15
	1969	24	29	676	15
	2215	31	23	687	15
P5630B2_gr5	0	34	21	691	15
	159	13	53	650	19
	317	30	24	686	15
	477	6	109	620	31
	636	10	71	638	23
	794	12	60	645	20
	953	13	55	648	19
	1113	21	33	670	15
	1271	32	22	689	15
	1430	32	23	688	15



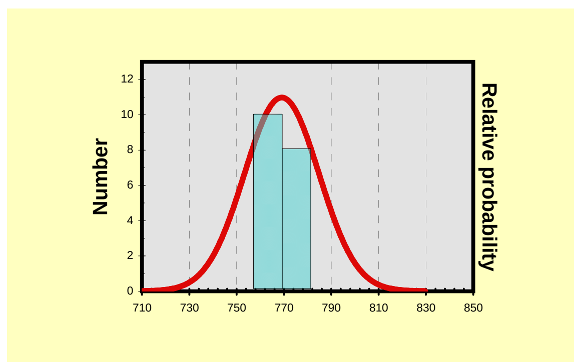
P5630G2_gr1	0	112	6	750	15
	58	123	6	755	15
	115	128	6	757	15
	173	125	6	756	15
	231	97	7	743	15
	288	111	6	750	15
	346	139	5	762	15
	404	108	7	749	15
	462	116	6	752	15
	519	131	5	759	15
P5630G2_gr2	0	165	4	771	15
	137	212	4	785	15
	273	199	4	781	15
	410	188	4	778	15
	546	206	4	783	15
	683	186	4	778	15
	956	115	6	752	15
	1093	192	4	779	15
P5630G2_gr3	0	278	3	800	15
	81	279	3	801	15
	161	279	3	801	15
	242	180	4	776	15
	323	167	4	772	15
	404	168	4	772	15
	484	164	4	771	15
	565	193	4	780	15
	646	193	4	780	15

Tukey's Biweight Mean =
774.6 ± 4.1 [0.54%] 95% conf.



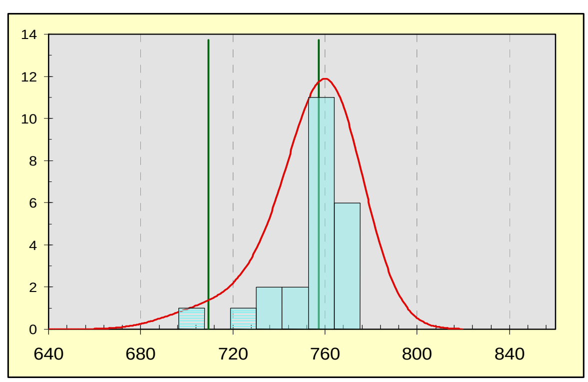
	726	180	4	776	15
P5630G2_gr4	0	204	4	783	15
	64	183	4	777	15
	128	180	4	776	15
	191	171	4	773	15
	255	174	4	774	15
	319	191	4	779	15
	383	184	4	777	15
	446	187	4	778	15
	510	181	4	776	15
	574	159	5	769	15
P5630G2_gr5	0	206	4	783	15
	125	199	4	781	15
	251	195	4	780	15
	376	223	3	788	15
	501	195	4	780	15
	627	186	4	778	15
	752	182	4	776	15
	878	198	4	781	15
	1003	248	3	794	15
	1128	276	3	800	15
P5701G	74	150	5	765	15
	111	135	5	760	15
	148	142	5	763	15
	184	151	5	766	15
	221	153	5	767	15
	258	147	5	765	15
	295	191	4	779	15
	332	160	5	770	15
	369	163	5	770	15
	406	172	4	773	15
	443	167	4	772	15
	479	174	4	774	15
	516	169	4	772	15
	553	169	4	772	15
	590	177	4	775	15
	627	155	5	768	15
	664	160	5	769	15
	701	142	5	763	15

Tukey's Biweight Mean =
769.1 ± 2.5 [0.33%] 95% conf.



P5710A5-gr.1	17	127	6	757	15
	35	153	5	767	15
	51	137	5	761	15
	68	137	5	761	15
P5710A5-gr.2	0	151	5	766	15
	30	138	5	761	15
	62	134	5	760	15
	92	135	5	760	15
P5710A5-gr.3	0	94	8	741	15
	20	82	9	734	15
	41	128	6	757	15
	61	144	5	764	15
	81	42	15	701	15
P5710A5-gr.4	0	64	10	722	15
	20	142	5	763	15
	41	93	8	741	15

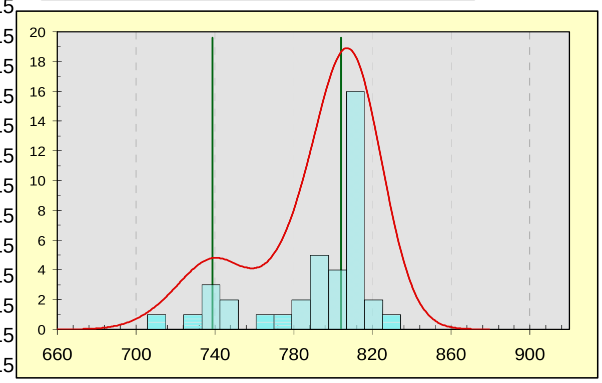
Tukey's Biweight Mean =
757.4 ± 4.9 [0.65%] 95% conf.



	62	126	6	756	15
	82	142	5	763	15
P5710A5-gr.5	0	160	5	769	15
	23	131	6	759	15
	45	148	5	765	15
	69	147	5	765	15
	91	111	6	750	15
P6805F_gr1	0	294	3	803	15
	44	318	3	808	15
	87	192	4	779	15
	132	175	5	774	15
	175	198	4	781	15
	219	233	3	790	15
	262	325	3	809	15
	306	326	3	810	15
	350	274	3	799	15
	394	322	3	809	15
P6805F_gr2	0	331	2	811	15
	47	317	3	808	15
	94	329	3	810	15
	141	258	3	796	15
	188	432	2	826	15
	235	324	3	809	15
	282	307	3	806	15
	329	343	2	813	15
	376	330	3	810	15
	423	342	2	812	15
P6805F_gr3	0	284	3	802	15
	18	94	8	741	15
	35	235	3	791	15
	53	243	3	793	15
	89	102	8	746	15
	106	75	10	729	15
	124	97	7	743	15
	141	90	8	739	15
	159	85	9	736	15
P6805F_gr4	0	330	3	810	15
	46	248	3	794	15
	93	142	6	763	15
	138	367	2	817	15
	185	371	2	817	15
	231	337	2	811	15
	277	349	2	814	15
	323	361	2	816	15
	370	314	3	807	15
	416	55	13	714	15

Peak	±2σ	fraction	±2σ
738	12	0.20	0.15
804	6	0.80	---

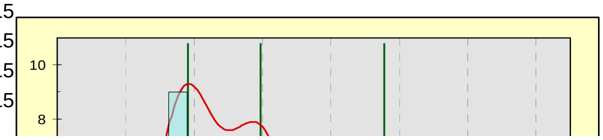
relative misfit = 0.807



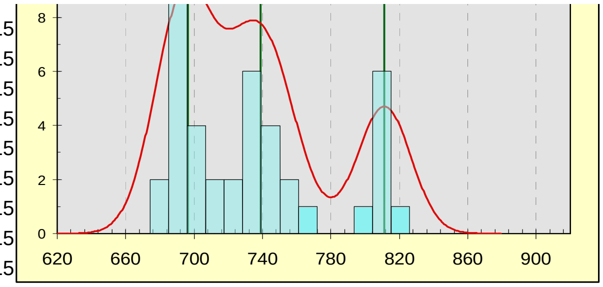
P6815E1_gr1	0	37	19	696	15
	6	32	22	688	15
	13	37	19	696	15
	19	35	20	693	15
	26	40	17	699	15
	32	109	7	749	15
	38	74	10	729	15
	45	58	12	717	15
	51	100	7	744	15

Peak	±2σ	fraction	±2σ
696	8	0.43	0.23
739	9	0.37	0.21
811	11	0.20	---

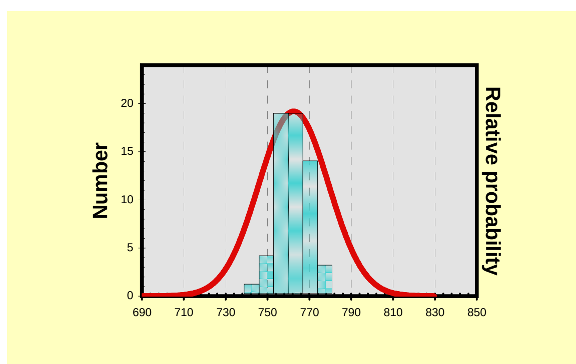
relative misfit = 0.610



	58	36	18	694	15
P6815E1_gr2	0	111	6	750	15
	12	105	7	747	15
	24	32	22	688	15
	36	26	27	679	15
	48	28	25	682	15
	60	32	22	688	15
	72	43	16	702	15
	84	36	19	695	15
	96	82	9	734	15
	108	137	5	761	15
P6815E1_gr3	0	94	8	741	15
	23	351	2	814	15
	47	347	2	813	15
	70	353	2	814	15
	93	330	2	810	15
	117	301	3	805	15
	140	344	2	813	15
	163	296	3	804	15
	187	358	2	815	15
	210	118	6	753	15
P6815E1_gr4	0	87	8	737	15
	8	36	20	694	15
	16	53	13	712	15
	23	39	18	698	15
	31	41	17	701	15
	39	65	11	723	15
	47	81	9	734	15
	55	64	11	722	15
	62	87	8	737	15
	70	77	9	731	15
P6815F2_gr1	0	149	5	766	15
	27	128	6	757	15
	53	125	6	756	15
	80	131	6	759	15
	106	131	5	759	15
	133	136	5	761	15
	159	126	6	756	15
	186	137	5	761	15
	213	119	6	753	15
	239	130	6	758	15
P6815F2_gr2	0	139	5	762	15
	37	140	5	762	15
	74	139	5	762	15
	111	134	5	760	15
	148	140	5	762	15
	185	132	5	759	15
	222	113	6	751	15
	259	149	5	766	15
	296	146	5	764	15
	333	134	5	760	15
P6815F2_gr3	0	159	5	769	15
	72	145	5	764	15
	72	123	6	755	15
	144	133	5	759	15
	216	118	6	753	15

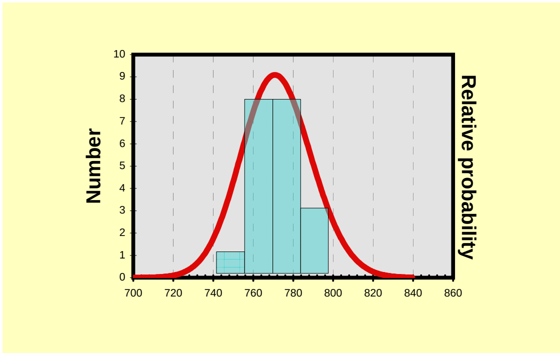


Tukey's Biweight Mean =
762.5 ± 1.9 [0.25%] 95% conf.



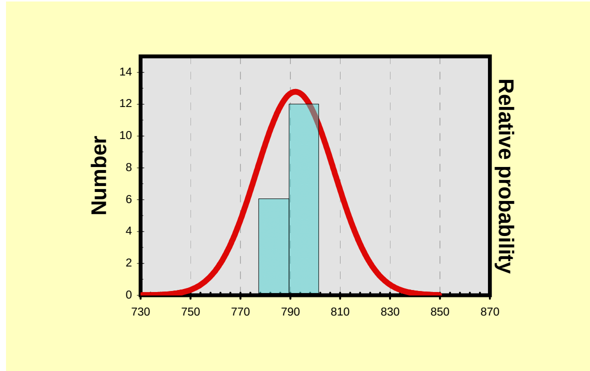
	288	132	6	759	15
	360	172	4	773	15
	432	126	6	757	15
	504	136	5	761	15
	576	158	5	769	15
P6815f2_gr4	0	166	4	771	15
	28	166	4	771	15
	56	97	7	743	15
	85	150	5	766	15
	113	121	6	754	15
	141	147	5	765	15
	169	128	6	757	15
	198	165	4	771	15
	226	153	5	767	15
	254	174	4	774	15
P6815f2_gr5	0	157	5	768	15
	13	124	6	756	15
	25	182	4	776	15
	38	173	4	773	15
	50	167	4	772	15
	63	169	4	772	15
	75	186	4	778	15
	89	161	5	770	15
	101	167	4	772	15
	114	156	5	768	15
P6815f2_gr6	0	150	5	766	15
	37	118	6	753	15
	73	118	6	753	15
	109	148	5	765	15
	145	147	5	765	15
	182	140	5	762	15
	218	145	5	764	15
	254	126	6	757	15
	290	114	6	751	15
	327	137	5	761	15
P6815G1	0	168	4	772	15
	37	179	4	776	15
	74	156	5	768	15
	110	165	4	771	15
	147	169	4	772	15
	184	122	6	755	15
	221	141	5	763	15
	257	161	5	770	15
	294	154	5	767	15
	331	223	3	788	15
	368	248	3	794	15
	404	173	4	774	15
	441	159	5	769	15
	478	130	5	758	15
	515	169	4	772	15
	552	223	3	788	15
	588	145	5	764	15
	625	187	4	778	15
	662	171	4	773	15
	699	150	5	766	15

Tukey's Biweight Mean =
771.5 ± 4.4 [0.57%] 95% conf.



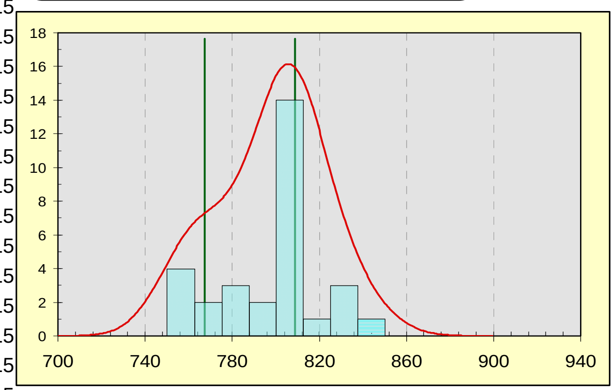
P6826I1	0	238	3	791	15
	114	241	3	792	15
	171	266	3	798	15
	229	250	3	794	15
	286	258	3	796	15
	343	269	3	798	15
	400	272	3	799	15
	457	217	3	786	15
	514	229	3	789	15
	571	221	3	787	15
	629	233	3	790	15
	686	237	3	791	15
	743	232	3	790	15
	857	225	3	788	15
	914	207	4	784	15
	971	237	3	791	15
	1029	248	3	794	15
	1086	263	3	797	15
R9821D2_gr1	0	133	6	759	15
	12	147	5	765	15
	30	139	5	762	15
	68	275	3	800	15
	84	292	3	803	15
	101	303	3	805	15
	118	309	2	807	15
	118	305	3	806	15
	134	212	4	785	15
	171	190	4	779	15
	212	129	6	758	15
R9821D2_gr2	0	318	2	808	15
	25	296	3	804	15
	50	326	2	809	15
	75	342	2	812	15
	100	349	2	814	15
	125	306	3	806	15
	151	430	2	826	15
	175	299	3	804	15
	201	323	2	809	15
R9821D2_gr3	0	192	4	779	15
	36	158	5	769	15
	73	128	6	757	15
	109	304	3	806	15
	145	462	2	830	15
	182	562	1	843	15
	218	314	2	807	15
	254	289	3	803	15
	291	443	2	828	15
	327	243	3	793	15
R9824b4_gr1	0	398	2	821	15
	53	457	2	830	15
	106	459	2	830	15
	211	343	2	813	15
	264	124	6	756	15
	317	120	6	754	15
	369	465	2	831	15

Tukey's Biweight Mean =
792.1 ± 2.3 [0.29%] 95% conf.



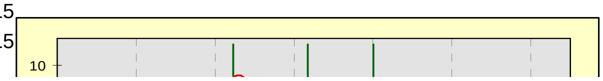
Peak	±2σ	fraction	±2σ
767	13	0.26	0.21
809	7	0.74	---

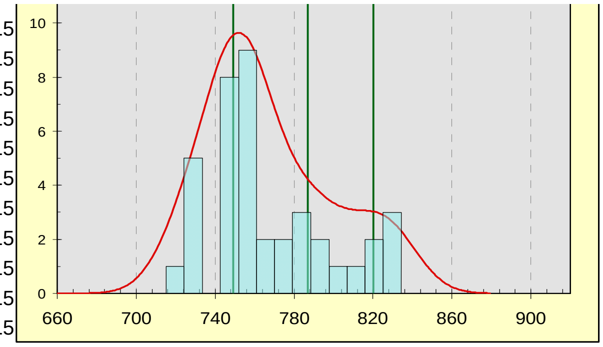
relative misfit = 0.936



Peak	±2σ	fraction	±2σ
749	7	0.68	0.29
787	24	0.15	0.19
820	15	0.18	---

relative misfit = 0.810

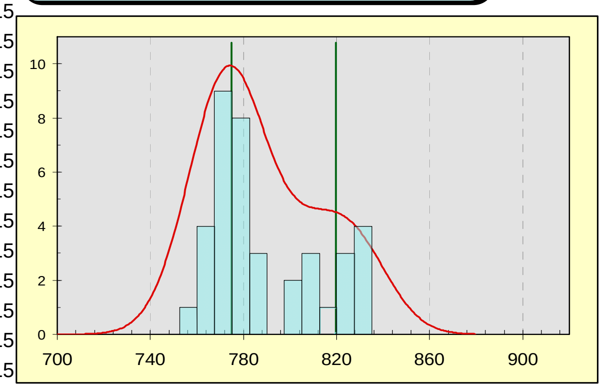




	422	213	4	785	15
	475	129	6	758	15
R9824b4_gr2	0	256	3	796	15
	61	210	4	784	15
	121	201	4	782	15
	182	180	4	776	15
	243	126	6	756	15
	303	103	7	746	15
	364	183	4	777	15
	425	261	3	797	15
	485	414	2	824	15
	546	285	3	802	15
R9824b4_gr3	0	147	5	765	15
	16	141	5	763	15
	32	114	6	751	15
	47	110	7	749	15
	63	100	7	745	15
	79	125	6	756	15
	95	119	6	754	15
	111	122	6	755	15
	126	116	6	752	15
	142	115	6	752	15
R9824b4_gr4	0	77	9	731	15
	12	71	10	727	15
	24	101	7	745	15
	36	113	6	751	15
	48	109	7	749	15
	60	118	6	753	15
	72	66	10	723	15
	84	68	10	724	15
	96	75	10	730	15
	108	81	8	733	15

Peak	±2σ	fraction	±2σ
775	7	0.70	0.28
820	10	0.30	---

relative misfit = 0.908



R9828b2_gr1	0	128	6	757	15
	11	170	4	773	15
	22	138	5	761	15
	32	153	5	767	15
	43	317	2	808	15
	54	337	2	811	15
	65	307	3	806	15
	76	298	3	804	15
	87	141	5	762	15
	97	163	4	770	15
R9828b2_gr2	0	350	2	814	15
	13	284	3	802	15
	26	424	2	825	15
	39	416	2	824	15
	52	437	2	827	15
	65	444	2	828	15
	78	462	2	830	15
	91	479	2	833	15
	104	455	2	830	15
R9828b2_gr3	0	159	5	769	15
	15	180	4	776	15
	30	168	4	772	15
	45	161	5	770	15
	60	167	4	772	15

	75	180	4	776	15
	90	202	4	782	15
	105	188	4	778	15
	120	147	5	765	15
	135	203	4	783	15
R9828b2_gr4	0	183	4	777	15
	5	164	5	771	15
	11	185	4	777	15
	16	165	5	771	15
	22	170	4	773	15
	27	189	4	778	15
	32	185	4	777	15
	38	215	3	786	15
	43	204	4	783	15
Y1710C5	0	229	3	789	15
	85	183	4	777	15
	170	130	5	758	15
	509	199	4	781	15
	594	192	4	779	15
	679	191	4	779	15
	764	194	4	780	15
	849	189	4	778	15
	934	186	4	778	15
	1019	194	4	780	15
	1104	194	4	780	15
	1189	198	4	781	15
	1274	128	6	757	15
	1358	200	4	782	15
	1443	169	4	772	15
	1528	193	4	780	15
	1613	206	4	783	15

Tukey's Biweight Mean =
779.8 ± 1.7 [0.22%] 95% conf.

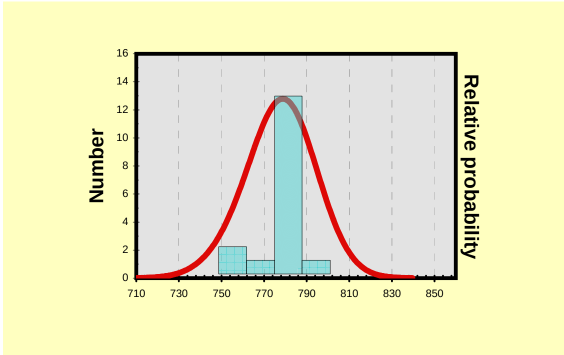


Table 4 appendix. Ontario-2 titanite TIMS data.

		Compositional Parameters							Radiogenic Isotope Ratios									Isotopic Dates					
Sample (a)	Wt. mg (b)	U ppm (c)	Th/U (d)	Pb ppm (c)	$^{206}Pb^*$ x10^{-13} mol (e)	$^{206}Pb^*/Pb_c$ (e)	Pb_c (pg) (e)	$^{206}Pb/^{204}Pb$ (f)	$^{208}Pb/^{206}Pb$ (g)	$^{207}Pb/^{206}Pb$ (g)	% err (h)	$^{207}Pb/^{235}U$ (g)	% err (h)	$^{206}Pb/^{238}U$ (g)	% err (h)	corr. coef.	$^{207}Pb/^{206}Pb$ (i)	± (h)	$^{207}Pb/^{235}U$ (i)	± (h)	$^{206}Pb/^{238}U$ (i)	± (h)
2	0.52	90	2.2	27	344.51	7.4	1670	316.7	0.662	0.07434	0.294	1.8166	0.364	0.17723	0.143	0.64	1050.6	5.9	1051.4	2.4	1051.8	1.4
3	0.41	87	2.2	26	257.73	7.8	1196	330.1	0.665	0.07443	0.290	1.8161	0.360	0.17696	0.142	0.65	1053.1	5.8	1051.3	2.4	1050.4	1.4
4	0.40	83	2.2	25	247.40	7.7	1149	329.9	0.665	0.07437	0.275	1.8227	0.348	0.17776	0.137	0.67	1051.4	5.5	1053.7	2.3	1054.8	1.3
5	0.07	88	2.2	27	42.35	7.6	202	322.6	0.669	0.07446	0.292	1.8306	0.360	0.17830	0.134	0.65	1053.9	5.9	1056.5	2.4	1057.7	1.3
6	0.04	77	2.2	23	22.63	7.3	112	310.1	0.670	0.07432	0.219	1.8138	0.310	0.17701	0.125	0.84	1050.1	4.4	1050.5	2.0	1050.6	1.2
7	0.04	62	2.2	19	17.82	7.2	90	306.3	0.671	0.07434	0.303	1.8234	0.370	0.17788	0.136	0.65	1050.7	6.1	1053.9	2.4	1055.4	1.3

(a) Labels for fractions composed of single zircon grains or fragments; all fractions annealed and chemically abraded after Mattinson (2005).

(b) Nominal fraction weights estimated from photomicrographic grain dimensions, adjusted for partial dissolution during chemical abrasion.

(c) Nominal U and total Pb concentrations subject to uncertainty in photomicrographic estimation of weight and partial dissolution during chemical abrasion.

(d) Model Th/U ratio calculated from radiogenic 208Pb/206Pb ratio and 207Pb/235U age.

(e) Pb* and Pbc represent radiogenic and common Pb, respectively; mol % $^{206}Pb^*$ with respect to radiogenic, blank and initial common Pb.

(f) Measured ratio corrected for spike and fractionation only.
SEM analyses, based on analysis of NBS-981 and NBS-982.

(g) Corrected for fractionation, spike, and common Pb; up to 1 pg of common Pb was assumed to be procedural blank: 206Pb/204Pb = 18.60 ± 0.80%; 207Pb/204Pb = 15.69 ± 0.32%; 208Pb/204Pb = 38.51 ± 0.74% (all uncertainties 1-sigma). Excess over blank was assigned to initial common Pb.

(h) Errors are 2-sigma, propagated using the algorithms of Schmitz and Schoene (2007).

(i) Based on decay constants of Jaffey et al. (1971). 206Pb/238U and 207Pb/206Pb ages corrected for initial disequilibrium in 230Th/238U using Th/U [magma] = 3.

(j) Corrected for fractionation, spike, and blank Pb only.

Sample (Radiogenic + Initial Pb) Isotope Ratios					
$^{238}U/^{206}Pb$ (j)	% err (h)	$^{207}Pb/^{206}Pb$ (j)	% err (h)	$^{206}Pb/^{204}Pb$ (j)	% err (h)
5.3411	0.103	0.11918	0.094	317.55	0.208
5.3617	0.106	0.11739	0.106	331.36	0.253
5.3375	0.101	0.11735	0.108	331.23	0.270
5.3202	0.116	0.11760	0.435	330.02	1.169
5.3529	0.159	0.11838	0.795	323.14	2.135
5.3262	0.186	0.11846	1.007	322.72	2.687

Sample (Radiogenic + Initial Pb) Isotope Ratios									
$^{238}U/^{204}Pb$ (j)	% err (h)	$^{206}Pb/^{204}Pb$ (j)	% err (h)	corr. coef.	$^{235}U/^{204}Pb$ (j)	% err (h)	$^{207}Pb/^{204}Pb$ (j)	% err (h)	corr. coef.
1696.1	0.174	317.55	0.208	0.87	12.301	0.174	37.845	0.252	0.69
1776.7	0.232	331.36	0.253	0.91	12.886	0.232	38.900	0.273	0.72
1767.9	0.249	331.23	0.270	0.93	12.822	0.249	38.870	0.285	0.75
1755.8	1.229	330.02	1.169	1.00	12.73	1.229	38.809	0.773	0.97
1729.8	2.257	323.14	2.135	1.00	12.55	2.257	38.25	1.370	0.99
1718.9	2.844	322.72	2.687	1.00	12.47	2.844	38.23	1.699	0.99

Appendix Table A5: Settings for LA-MC-ICPMS

Laser		**ICP-MS**	
Model	Photon Machines Analyte 193	Model	Nu Plasma HR-MC-ICPMS
Type	ArF excimer	Type	magnetic sector field
Spot size	30–40 µm	Power	1300 W
Repetition rate	4 Hz	Sample gas (Ar)	0.9 L/m
Laser fluence	29% of 3 mJ	Carrier gas (He)	0.3 L/m
Ablation time	20 s		

Appendix Table A6. Titanite reference materials.

Name	**Location**	**TIMS date (Ma)† ± 95% C.I.**	**range in TIMS ratios†**		**range in LA-MCICPMS ratios†**		**MCICPMS date* (Ma)**
			$^{206}Pb/^{238}U$ %	**$^{207}Pb/^{206}Pb$ %**	**$^{206}Pb/^{238}U$ %**	**$^{207}Pb/^{206}Pb$ %**	
Ontario-2	Ontario	$^{206}Pb/^{238}U$ date 1053.3 ± 3.1 [Table A6] n=6	0.6	1.9	1	2	1048.7 ± 2.6 (BLR)
BLR	Bear Lake Ridge, Ontario	concordia date 1047.4 ± 1.4 [*Aleinikoff et al.*, 2007] n=5 of 6	0.6	4	1.9	5	1052.6 ± 2.6 (Ontario-2)
		[UCSB] n=6	1.4	0.9			
Y1710C5	Gurskøya, Norway	isochron date 388.6 ± 0.5 [Table A7] n=4	1.9	10	6	23	391.8 ± 2.7 (BLR) 390.9 ± 5.6 (Ontario-2)
MM	McClure Mountain, Colorado	isochron date 523.3 ± 2.1 [*Schoene and Bowring*, 2006] n=9	6	31	2.4	7.5	529.3 ± 5.0 (BLR)

*$^{206}Pb/^{238}U$–$^{207}Pb/^{206}Pb$ isochron date relative to primary RM indicated in parentheses; uncertainties include in-run uncertainties, decay constants and long-term reproducibility, but *not* uncertainty in primary RM age, which is generally small.

† variation in measured ratios, at 95% confidence interval, not corrected for common Pb. Variation reported for ICP ratios was measured relative to zircon RM 91500—rather than another titanite—because 91500 is more homogeneous than any known titanite RM.

Appendix Table 7. Complete titanite U-Pb MC-ICP-MS data.
isotopic ratios are not corrected for common Pb
samples with an overwhelming amount of common Pb not included

Sample Name	Pb (ppm)	U (ppm)	206Pb/ 204Pb+Hg	238U/ 206Pb	± 2 se	207Pb/ 206Pb	± 2 se
8815G4							
1	3.5	22	45	4.78	0.11	0.6662	0.0136
2	3.7	8	45	2.02	0.05	0.8240	0.0168
3	5.9	22	45	3.36	0.07	0.7601	0.0154
4	3.0	8	43	2.60	0.07	0.7996	0.0165
5	2.5	57	44	9.64	0.19	0.3932	0.0080
6	3.6	21	45	4.55	0.11	0.6882	0.0140
7	2.3	46	44	9.21	0.20	0.4109	0.0084
8	2.7	36	44	7.51	0.16	0.5117	0.0105
9	2.4	36	46	8.35	0.16	0.4717	0.0097
10	2.6	35	47	7.88	0.15	0.4939	0.0102
11	3.2	58	45	8.60	0.17	0.4408	0.0090
12	3.5	77	44	9.43	0.19	0.3991	0.0081
13	3.2	38	44	7.09	0.11	0.5350	0.0109
14	3.4	27	44	5.60	0.11	0.6301	0.0131
15	3.4	19	44	4.43	0.10	0.6976	0.0143
16	3.5	12	43	3.01	0.09	0.7802	0.0162
17	3.1	37	43	7.03	0.11	0.5347	0.0110
18	3.1	48	43	8.23	0.14	0.4712	0.0097
19	2.8	40	44	7.89	0.15	0.5042	0.0102
20	3.6	7	44	1.97	0.04	0.8331	0.0172
21	4.2	22	44	4.22	0.10	0.7107	0.0146
22	1.5	73	46	11.93	0.29	0.2438	0.0050
23	1.6	77	46	12.10	0.25	0.2450	0.0052
24	1.7	71	45	11.66	0.24	0.2690	0.0057
25	1.6	60	44	11.16	0.25	0.3013	0.0062
26	1.3	72	47	12.43	0.25	0.2277	0.0048
27	2.4	40	44	8.30	0.19	0.4582	0.0096
28	1.7	51	45	10.47	0.30	0.3360	0.0073
29	4.4	13	44	2.70	0.06	0.8011	0.0163
30	2.5	14	42	4.37	0.10	0.6924	0.0143
31	3.1	26	44	5.72	0.18	0.6024	0.0140
8822A9							
1	2.0	257	50	14.54	0.55	0.1070	0.0022
2	3.0	256	50	13.90	0.55	0.1445	0.0058
3	2.7	265	58	14.18	0.50	0.1224	0.0027
4	3.3	246	52	13.38	0.46	0.1565	0.0037
5	1.6	93	33	13.18	0.49	0.2043	0.0045
6	2.1	191	43	14.33	0.44	0.1392	0.0030
7	1.9	190	46	14.38	0.46	0.1268	0.0027
8	2.3	151	42	13.40	0.46	0.1774	0.0043
9	2.3	111	38	12.61	0.37	0.2365	0.0052
10	1.0	7	26	5.77	0.41	0.6128	0.0138
11	1.7	8	29	4.24	0.34	0.7043	0.0161
12	1.4	8	27	4.46	0.45	0.6956	0.0177
13	1.1	48	30	12.33	0.42	0.2558	0.0056
14	1.7	118	31	13.46	0.47	0.1841	0.0041

	15	2.2	82	34	11.82	0.50	0.2811	0.0059
8829A2								
	1	1.0	44	37	12.29	0.24	0.2643	0.0058
	2	0.6	68	35	14.42	0.41	0.1472	0.0034
	3	3.6	38	45	6.51	0.30	0.5585	0.0116
	4	2.5	37	43	7.79	0.26	0.5061	0.0105
	5	1.8	26	42	7.83	0.26	0.4951	0.0103
	6	2.0	24	41	7.04	0.30	0.5350	0.0112
	7	1.0	30	36	10.65	0.49	0.3472	0.0076
	8	2.4	34	42	7.84	0.35	0.4981	0.0103
	9	1.6	32	40	9.06	0.31	0.4350	0.0091
	10	2.2	29	41	7.61	0.30	0.5103	0.0105
	11	1.9	28	41	7.72	0.23	0.4923	0.0102
	12	2.3	33	42	7.56	0.34	0.4977	0.0103
	13	2.0	31	41	8.02	0.35	0.4904	0.0102
	14	2.2	34	42	8.22	0.33	0.4820	0.0100
	15	1.8	28	41	8.35	0.31	0.4806	0.0101
	16	2.2	35	42	8.14	0.30	0.4783	0.0099
	17	0.6	8	32	7.30	0.32	0.5258	0.0122
	18	0.9	4	36	3.92	0.22	0.7158	0.0164
	19	0.6	5	35	5.70	0.28	0.6020	0.0140
	20	0.8	54	39	13.43	0.60	0.1944	0.0045
	21	0.6	5	33	5.59	0.30	0.6176	0.0140
	22	0.8	18	27	9.45	0.33	0.3823	0.0084
	23	0.7	32	29	12.06	0.43	0.2817	0.0139
	24	0.7	2	32	1.88	0.54	0.8091	0.0211
	25	0.8	39	34	12.42	0.38	0.2621	0.0057
	26	0.9	45	34	12.73	0.45	0.2460	0.0054
	27	0.6	40	32	13.08	0.50	0.2137	0.0048
	28	1.1	3	35	2.25	0.19	0.7930	0.0170
	29	0.6	11	28	8.98	0.40	0.4208	0.0106
	30	0.7	38	32	13.07	0.50	0.2458	0.0054
8830A11								
	1	3.7	112	99	10.80	0.39	0.3251	0.0067
	2	3.2	178	91	10.37	0.41	0.3489	0.0071
	3	3.5	111	100	12.31	0.35	0.2508	0.0052
	4	3.6	119	107	15.83	0.33	0.0799	0.0017
	5	3.5	109	107	15.21	0.32	0.0860	0.0018
	6	2.8	123	81	15.26	0.32	0.0929	0.0019
	7	2.9	117	81	15.56	0.32	0.0830	0.0017
	8	2.9	102	82	14.63	0.31	0.1146	0.0039
	9	3.3	99	99	14.99	0.32	0.1115	0.0026
	10	3.1	112	91	14.60	0.31	0.1115	0.0027
	11	3.3	134	103	13.45	0.34	0.2061	0.0047
	12	3.4	168	104	15.64	0.32	0.0740	0.0015
	13	3.3	173	112	14.52	0.32	0.1232	0.0025
	14	3.3	172	104	8.66	0.48	0.4466	0.0092
	15	3.1	100	84	6.59	0.57	0.5596	0.0113
	16	2.9	105	97	12.89	0.34	0.2241	0.0047
	17	2.4	106	98	11.94	0.35	0.2568	0.0053
	18	3.6	124	118	11.17	0.37	0.2998	0.0064
	19	3.5	118	125	9.98	0.42	0.3670	0.0079

	20	3.6	105	135	15.14	0.33	0.1189	0.0025
	21	3.4	118	125	15.25	0.32	0.1090	0.0025
	22	3.3	117	116	9.88	0.43	0.3788	0.0077
	23	3.3	119	124	10.57	0.40	0.3440	0.0071
	24	3.5	113	128	6.64	0.57	0.5506	0.0112
	25	4.0	104	161	12.66	0.34	0.2264	0.0048
	26	3.7	532	103	7.88	0.52	0.4935	0.0105
	27	2.8	129	126	10.26	0.42	0.3632	0.0075
8907C6								
	1	0.3	39	38	15.00	0.27	0.1153	0.0028
	2	0.5	31	57	13.48	0.27	0.1960	0.0043
	3	0.4	30	45	14.08	0.24	0.1622	0.0037
	4	0.3	37	39	14.88	0.27	0.1194	0.0028
	5	0.3	40	31	15.28	0.27	0.1157	0.0028
	6	0.5	99	63	15.62	0.28	0.0880	0.0019
	7	0.3	47	30	15.31	0.26	0.1058	0.0024
	8	0.3	45	62	15.15	0.28	0.1064	0.0026
	9	0.3	25	52	14.55	0.29	0.1452	0.0037
	10	0.3	38	27	15.04	0.30	0.1169	0.0027
	11	0.3	33	42	14.98	0.28	0.1260	0.0031
	12	0.2	32	29	15.12	0.32	0.1266	0.0031
	13	0.2	37	25	15.28	0.27	0.1148	0.0028
	14	0.2	38	31	15.43	0.29	0.1150	0.0027
	15	0.2	39	45	15.22	0.33	0.1126	0.0028
	16	0.3	152	40	15.96	0.28	0.0711	0.0015
	17	0.3	44	47	14.97	0.27	0.1166	0.0027
	18	0.3	38	30	14.94	0.34	0.1222	0.0030
	19	0.3	45	51	15.24	0.26	0.1182	0.0027
	20	0.3	47	43	14.95	0.26	0.1209	0.0029
	21	0.2	33	52	14.69	0.33	0.1374	0.0042
	22	0.3	59	61	15.51	0.27	0.1010	0.0023
	23	0.2	16	40	14.05	0.22	0.1745	0.0045
	24	0.2	13	16	13.49	0.30	0.2066	0.0052
	25	0.3	37	60	14.31	0.33	0.1444	0.0034
	26	0.2	14	31	13.91	0.32	0.1942	0.0052
	27	0.2	16	-141	13.92	0.28	0.1752	0.0044
	28	0.3	20	75	13.69	0.28	0.1878	0.0044
8911A5								
	1	1.4	4	39	2.75	0.09	0.7984	0.0170
	2	0.9	5	39	4.24	0.11	0.7271	0.0158
	3	1.6	3	41	1.74	0.14	0.8485	0.0210
	4	0.8	3	42	2.94	0.26	0.8085	0.0229
	5	1.0	3	42	2.87	0.12	0.7847	0.0170
	6	1.2	6	40	4.17	0.12	0.7187	0.0157
	7	1.6	6	42	2.93	0.10	0.7813	0.0169
	8	1.3	3	43	2.04	0.18	0.8320	0.0198
	9	1.0	8	42	5.53	0.14	0.6389	0.0143
	10	1.4	14	46	6.59	0.10	0.5900	0.0127
	11	1.4	12	45	5.86	0.12	0.6332	0.0133
	12	1.3	16	52	7.88	0.12	0.5173	0.0110
	13	2.1	9	45	3.51	0.08	0.7597	0.0159
	14	1.3	8	45	4.79	0.13	0.6893	0.0153

	15	0.9	5	42	4.32	0.18	0.7112	0.0160
	16	1.8	5	43	2.36	0.12	0.8208	0.0175
	17	1.5	4	43	2.27	0.18	0.8472	0.0204
	18	1.8	14	47	5.33	0.14	0.6537	0.0140
	19	1.6	9	44	4.11	0.16	0.7186	0.0153
	20	1.6	11	44	4.97	0.17	0.6694	0.0143
	21	4.0	9	44	2.05	0.09	0.8299	0.0176
	22	1.9	10	45	4.31	0.15	0.7138	0.0161
	23	2.3	5	44	2.06	0.09	0.8356	0.0177
	24	2.0	6	44	2.75	0.08	0.8080	0.0167
	25	2.3	5	44	2.09	0.08	0.8524	0.0188
8912C3								
	1	4.5	13	39	2.47	0.13	0.7909	0.0170
	2	3.9	26	37	4.94	0.11	0.6617	0.0135
	3	4.3	37	38	5.82	0.11	0.6134	0.0126
	4	4.2	38	40	6.10	0.15	0.5950	0.0123
	5	3.7	57	39	8.26	0.15	0.4742	0.0101
	6	4.4	109	42	10.20	0.31	0.3690	0.0077
	7	3.9	14	38	3.09	0.10	0.7246	0.0154
	8	3.8	149	38	11.58	0.22	0.2968	0.0060
	9	4.2	42	38	6.25	0.13	0.5641	0.0116
	10	4.8	53	38	6.68	0.12	0.5396	0.0111
	11	5.0	197	43	11.88	0.24	0.2725	0.0058
	12	4.5	148	42	11.10	0.24	0.3116	0.0068
	13	4.9	92	41	8.90	0.18	0.4202	0.0087
	14	4.9	141	40	10.46	0.25	0.3361	0.0070
	15	4.8	114	41	9.78	0.25	0.3711	0.0075
	16	4.0	92	41	9.51	0.19	0.3740	0.0076
	17	5.2	41	44	5.13	0.14	0.5187	0.0116
	18	7.8	202	71	8.81	0.21	0.2242	0.0045
	19	8.3	178	88	7.75	0.24	0.2067	0.0043
	20	8.5	206	94	7.59	0.18	0.1856	0.0038
	21	12.3	236	125	7.58	0.18	0.1794	0.0036
	22	4.7	19	42	3.03	0.11	0.5996	0.0166
	23	4.4	33	47	4.41	0.10	0.4376	0.0100
	24	7.7	184	91	6.78	0.14	0.1800	0.0037
	25	6.7	123	77	5.65	0.13	0.2100	0.0043
	26	7.4	92	81	5.29	0.13	0.2483	0.0055
	27	5.7	58	55	4.34	0.11	0.3247	0.0066
	28	16.2	230	190	5.01	0.11	0.1521	0.0032
	29	12.8	168	153	4.53	0.11	0.1647	0.0034
	30	12.4	153	132	4.32	0.09	0.1773	0.0036
A0714L1								
	1	17.9	19	51	1.00	0.03	0.8524	0.0172
	2	6.1	19	51	2.80	0.12	0.7490	0.0159
	3	1.7	18	153	6.57	0.19	0.5509	0.0120
	4	1.1	17	47	7.78	0.44	0.4906	0.0172
	5	0.9	14	47	8.29	0.31	0.4751	0.0120
	6	6.1	8	49	1.21	0.04	0.8393	0.0174
	7	0.8	14	46	8.64	0.24	0.4318	0.0095
	8	0.8	15	47	8.77	0.23	0.4239	0.0094
	9	0.8	16	46	9.23	0.25	0.4187	0.0094

	10	0.8	16	47	9.17	0.26	0.4248	0.0107
	11	0.7	13	56	8.59	0.22	0.4383	0.0095
	12	0.7	15	48	9.08	0.24	0.4080	0.0090
	13	0.7	14	51	9.28	0.26	0.4202	0.0090
	14	0.8	16	16	9.02	0.22	0.4356	0.0094
	15	0.9	20	37	9.55	0.28	0.4103	0.0091
	16	0.9	21	48	9.43	0.27	0.3953	0.0090
	17	0.8	18	101	9.42	0.22	0.4096	0.0088
	18	1.3	15	50	6.87	0.28	0.5398	0.0174
	19	0.7	18	16	9.69	0.24	0.3779	0.0091
	20	2.1	14	50	4.98	0.15	0.6414	0.0157
	21	0.7	18	61	9.85	0.26	0.3885	0.0091
	22	2.8	24	46	5.81	0.14	0.5993	0.0129
	23	8.7	14	45	1.50	0.04	0.8279	0.0168
	24	8.1	15	49	1.78	0.06	0.8129	0.0171
A0714U1								
	1	107.5	187	101	4.94	0.03	0.4008	0.0092
	2	89.7	173	161	5.40	0.03	0.2690	0.0055
	3	80.4	247	156	6.49	0.06	0.2267	0.0063
	4	49.6	181	204	6.03	0.12	0.1720	0.0038
	5	71.5	174	386	6.25	0.05	0.1511	0.0035
	6	2.7	115	59	14.68	0.14	0.1172	0.0026
	7	81.1	183	431	6.21	0.05	0.1519	0.0031
	8	5.9	5	37	2.36	0.16	0.8216	0.0190
	9	5.0	5	46	2.83	0.17	0.8082	0.0180
	10	122.3	71	52	1.99	0.05	0.8437	0.0172
	11	19.4	144	59	9.83	0.15	0.3114	0.0082
	12	56.2	249	267	6.41	0.06	0.1364	0.0028
	13	67.5	184	574	6.28	0.07	0.1245	0.0026
	14	65.5	186	781	6.09	0.07	0.1063	0.0022
	15	65.1	190	866	6.17	0.08	0.1085	0.0023
	16	78.9	236	532	6.20	0.07	0.1163	0.0024
	17	7.2	8	61	3.27	0.11	0.7092	0.0161
	18	67.5	199	1279	6.10	0.06	0.1096	0.0023
	19	70.1	173	575	6.01	0.05	0.1183	0.0025
	20	79.5	158	70	5.92	0.08	0.5394	0.0111
	21	91.7	165	302	5.77	0.04	0.1936	0.0041
	22	105.7	223	98	5.36	0.04	0.3748	0.0076
A0715C1								
	1	31.8	134	164	5.59	0.10	0.3828	0.0086
	2	32.1	128	155	5.22	0.11	0.3949	0.0080
	3	31.5	131	161	5.40	0.12	0.3812	0.0077
	4	30.6	123	112	4.96	0.10	0.4972	0.0100
	5	37.3	131	108	4.40	0.08	0.5190	0.0104
	6	36.5	134	122	4.54	0.08	0.4676	0.0094
	7	35.4	129	114	4.56	0.09	0.5008	0.0101
	8	32.9	134	105	4.86	0.10	0.5143	0.0104
	9	38.2	138	117	4.58	0.10	0.4889	0.0098
	10	37.0	132	97	4.37	0.11	0.5679	0.0118
	11	39.6	131	149	4.43	0.09	0.4172	0.0084
	12	29.9	184	212	6.05	0.12	0.2501	0.0051
	13	31.4	196	337	5.98	0.16	0.1800	0.0037

	14	36.5	310	277	7.18	0.15	0.1859	0.0038
	15	32.9	257	243	6.66	0.14	0.2042	0.0041
	16	35.0	319	333	7.24	0.15	0.1576	0.0032
	17	30.3	232	225	7.02	0.12	0.2227	0.0045
	18	36.3	132	158	4.73	0.10	0.3915	0.0079
	19	33.2	126	141	5.10	0.10	0.4395	0.0089
	20	36.6	125	154	4.47	0.09	0.3998	0.0081
	21	41.1	145	203	4.90	0.16	0.3346	0.0068
	22	35.8	140	113	4.97	0.10	0.4981	0.0101
	23	34.2	127	159	4.89	0.12	0.3900	0.0082
	24	39.7	135	204	4.99	0.15	0.3477	0.0079
	25	36.2	129	179	4.87	0.13	0.3720	0.0076
	26	35.2	132	178	4.83	0.20	0.3598	0.0090
	27	42.7	128	115	3.74	0.08	0.4961	0.0100
	28	38.2	115	94	3.59	0.08	0.5693	0.0114
	29	33.0	122	264	5.15	0.10	0.2756	0.0056
	30	36.2	119	107	4.10	0.09	0.5282	0.0106
	31	33.4	120	138	4.71	0.10	0.4349	0.0088
	32	30.1	126	146	5.48	0.12	0.4094	0.0083
	33	32.6	143	285	5.99	0.15	0.2524	0.0055
	34	31.0	142	205	6.49	0.15	0.3336	0.0068
	35	33.6	144	175	5.61	0.15	0.3601	0.0073
A0715M2								
	1	0.8	20	26	10.00	0.22	0.4026	0.0081
	2	0.9	21	27	9.55	0.15	0.4148	0.0083
	3	0.8	15	25	8.91	0.22	0.4592	0.0093
	4	1.3	22	28	8.52	0.17	0.4826	0.0097
	5	1.6	24	36	8.27	0.18	0.4964	0.0099
	6	2.3	34	38	8.10	0.15	0.4990	0.0100
	7	1.8	26	34	8.19	0.17	0.5127	0.0103
	8	1.8	23	32	7.71	0.21	0.5304	0.0106
	9	2.4	29	35	7.45	0.21	0.5403	0.0108
	10	1.8	21	37	7.24	0.13	0.5507	0.0110
	11	2.6	31	38	7.31	0.17	0.5507	0.0110
	12	1.4	16	28	6.96	0.18	0.5629	0.0113
	13	1.0	11	27	7.07	0.22	0.5646	0.0114
	14	1.6	17	30	6.75	0.16	0.5732	0.0115
	15	3.0	32	37	6.97	0.14	0.5752	0.0115
	16	1.3	14	29	6.90	0.16	0.5767	0.0116
	17	0.9	10	15	6.76	0.16	0.5821	0.0117
	18	1.3	13	36	6.33	0.14	0.5960	0.0119
	19	2.1	21	37	6.40	0.15	0.5966	0.0119
	20	2.5	25	32	6.45	0.12	0.5981	0.0120
	21	2.3	20	37	6.16	0.14	0.6024	0.0121
	22	2.2	19	35	6.16	0.13	0.6125	0.0123
	23	5.0	32	42	5.05	0.08	0.6712	0.0134
	24	0.7	5	23	5.15	0.17	0.6736	0.0135
	25	2.7	17	36	4.99	0.11	0.6768	0.0136
	26	3.5	22	39	4.87	0.07	0.6827	0.0137
	27	2.7	14	37	4.16	0.24	0.7186	0.0146
A0715R1								
	1	6.7	23	50	2.97	0.08	0.7348	0.0151

	2	2.5	16	51	4.84	0.13	0.6330	0.0136
	3	3.2	30	53	6.14	0.15	0.5716	0.0123
	4	6.6	25	50	3.23	0.08	0.7219	0.0149
	5	7.1	16	50	2.01	0.05	0.7814	0.0160
	6	3.4	12	50	2.95	0.14	0.7325	0.0163
	7	3.7	11	50	2.48	0.15	0.7659	0.0177
	8	3.7	8	49	1.85	0.09	0.7896	0.0165
	9	7.4	19	50	2.23	0.05	0.7714	0.0159
	10	4.9	15	50	2.67	0.08	0.7506	0.0154
	11	3.5	9	50	2.21	0.10	0.7713	0.0161
	12	1.5	9	52	4.17	0.23	0.6474	0.0146
	13	3.1	8	50	2.22	0.11	0.7718	0.0163
	14	3.9	8	52	1.92	0.09	0.7837	0.0163
	15	11.6	32	51	2.43	0.06	0.7598	0.0154
	16	6.6	20	51	2.62	0.07	0.7530	0.0154
	17	1.6	10	53	4.62	0.19	0.6350	0.0140
	18	12.7	37	50	2.53	0.07	0.7498	0.0152
	19	11.3	28	51	2.24	0.07	0.7673	0.0155
A0715S								
	1	13.3	29	48	2.02	0.07	0.7735	0.0155
	2	23.5	41	48	1.65	0.03	0.8092	0.0163
	3	23.0	30	48	1.26	0.03	0.8304	0.0167
	4	18.3	37	48	1.89	0.04	0.7969	0.0160
	5	23.1	54	47	2.09	0.03	0.7855	0.0158
	6	22.3	34	48	1.46	0.03	0.8221	0.0165
	7	20.9	90	47	3.44	0.07	0.7057	0.0142
	8	17.8	116	47	4.76	0.10	0.6347	0.0128
	9	19.7	110	47	4.32	0.09	0.6657	0.0134
	10	30.4	70	48	2.09	0.04	0.7888	0.0158
	11	31.6	68	48	2.01	0.04	0.7945	0.0160
	12	15.0	33	47	2.07	0.04	0.7798	0.0157
	13	19.7	37	47	1.74	0.04	0.8009	0.0161
	14	14.2	33	47	2.11	0.05	0.7811	0.0157
	15	18.2	36	47	1.84	0.04	0.7962	0.0160
	16	14.5	38	47	2.38	0.04	0.7669	0.0155
	17	37.7	428	52	7.00	0.09	0.5132	0.0103
	18	22.8	225	48	6.31	0.08	0.5579	0.0112
	19	38.8	435	52	7.02	0.09	0.5090	0.0102
	20	38.5	442	53	7.13	0.09	0.5076	0.0102
	21	90.7	352	49	3.27	0.05	0.7332	0.0147
	22	14.9	32	46	1.92	0.05	0.7926	0.0160
	23	22.9	55	46	2.17	0.05	0.7872	0.0158
	24	17.3	44	46	2.29	0.06	0.7733	0.0156
	25	20.1	53	47	2.34	0.05	0.7616	0.0154
	26	14.6	28	47	1.83	0.05	0.7925	0.0160
	27	18.9	33	48	1.62	0.04	0.8025	0.0161
	28	24.3	43	49	1.66	0.04	0.8015	0.0161
	29	24.0	57	49	2.17	0.06	0.7744	0.0156
A0717J1								
	1	7.8	328	62	14.72	0.28	0.1318	0.0038
	2	6.7	247	55	14.13	0.32	0.1417	0.0041
	3	6.0	239	57	14.28	0.18	0.1311	0.0033

	4	5.9	201	68	14.39	0.16	0.1389	0.0034
	5	12.7	315	51	13.62	0.12	0.1751	0.0038
	6	6.4	334	68	14.84	0.17	0.1109	0.0025
	7	6.2	219	69	14.29	0.14	0.1369	0.0031
	8	8.0	311	62	14.71	0.18	0.1254	0.0028
	9	7.1	234	56	14.14	0.15	0.1452	0.0032
	10	4.1	237	68	15.04	0.18	0.1072	0.0031
	11	8.0	230	58	13.85	0.15	0.1591	0.0035
	12	4.9	255	70	14.89	0.15	0.1120	0.0025
	13	5.2	238	57	14.60	0.15	0.1246	0.0028
	14	5.0	257	74	14.72	0.18	0.1165	0.0027
	15	5.9	280	66	14.64	0.18	0.1187	0.0027
	16	5.0	252	57	14.73	0.15	0.1148	0.0027
	17	4.7	219	37	14.76	0.27	0.1179	0.0033
	18	4.4	207	41	14.65	0.19	0.1195	0.0027
	19	5.0	246	39	14.71	0.19	0.1148	0.0030
	20	6.2	240	67	14.39	0.15	0.1296	0.0028
	21	7.8	345	59	14.44	0.25	0.1281	0.0032
	22	6.6	255	99	14.23	0.27	0.1341	0.0032
	23	5.6	286	72	14.59	0.15	0.1134	0.0026
	24	7.7	216	60	13.67	0.20	0.1636	0.0038
	25	6.6	301	68	14.65	0.14	0.1225	0.0028
	26	7.6	362	77	14.71	0.21	0.1168	0.0031
	27	8.2	211	56	13.66	0.17	0.1726	0.0050
	28	5.3	249	60	14.71	0.14	0.1206	0.0027
	29	5.8	454	67	15.05	0.15	0.0934	0.0020
	30	7.0	746	92	15.29	0.24	0.0843	0.0019
	31	6.6	630	100	15.22	0.21	0.0840	0.0018
	32	5.7	362	67	14.92	0.17	0.1007	0.0022
	33	6.2	394	81	14.91	0.14	0.0986	0.0022
	34	7.3	524	81	15.07	0.16	0.0955	0.0020
	35	6.5	194	72	13.80	0.18	0.1566	0.0037
	36	6.3	209	60	14.15	0.16	0.1519	0.0035
	37	7.1	567	90	15.06	0.14	0.0895	0.0019
	38	7.0	472	91	15.11	0.14	0.0934	0.0020
	39	6.3	376	79	14.83	0.18	0.1062	0.0024
	40	6.9	475	76	15.02	0.13	0.0908	0.0019
	41	14.9	409	51	13.70	0.16	0.1730	0.0039
	42	13.7	506	50	14.16	0.18	0.1398	0.0032
	43	6.0	449	66	15.13	0.22	0.0945	0.0022
	44	7.3	498	78	15.15	0.18	0.0976	0.0021
	45	6.2	417	95	15.07	0.16	0.0972	0.0021
	46	9.1	488	79	14.92	0.15	0.1072	0.0026
	47	7.3	504	94	15.16	0.14	0.0912	0.0019
	48	9.8	247	55	13.52	0.16	0.1795	0.0041
A0717M3								
	1	11.8	43	52	6.33	0.14	0.5172	0.0114
	2	26.6	876	52	12.97	0.40	0.1547	0.0080
	3	8.3	413	52	14.37	0.29	0.1290	0.0027
	4	11.6	46	52	6.63	0.15	0.4983	0.0107
	5	11.8	42	50	6.33	0.16	0.5259	0.0110
	6	10.3	70	49	8.79	0.19	0.4020	0.0087

	7	8.6	252	52	13.21	0.31	0.1715	0.0046
	8	10.0	90	52	9.83	0.22	0.3390	0.0073
	9	7.8	204	51	13.18	0.31	0.1844	0.0038
	10	10.4	105	49	9.99	0.29	0.3161	0.0076
	11	10.2	171	49	11.57	0.24	0.2324	0.0052
	12	9.4	137	53	11.29	0.22	0.2536	0.0056
	13	13.7	428	53	12.85	0.28	0.1587	0.0036
	14	10.1	179	53	12.15	0.27	0.2307	0.0049
	15	9.2	179	52	12.18	0.27	0.2177	0.0045
	16	12.1	75	51	8.30	0.20	0.3992	0.0083
	17	7.6	195	49	13.19	0.30	0.1870	0.0039
	18	10.6	68	52	8.27	0.20	0.3931	0.0084
	19	13.3	288	52	12.02	0.30	0.1963	0.0042
	20	11.9	50	53	7.00	0.16	0.4895	0.0102
	21	26.1	323	52	9.29	0.22	0.2484	0.0056
	22	11.1	427	51	13.33	0.23	0.1417	0.0035
	23	9.5	286	50	13.55	0.28	0.1706	0.0037
	24	11.2	105	52	10.00	0.24	0.3287	0.0069
	25	9.0	424	53	14.29	0.33	0.1307	0.0027
	26	10.6	490	52	13.76	0.30	0.1303	0.0030
	27	14.7	571	53	13.57	0.37	0.1429	0.0030
	28	8.3	428	52	14.10	0.34	0.1226	0.0025
	29	15.8	242	52	10.88	0.27	0.2330	0.0065
	30	11.0	200	53	12.39	0.25	0.2290	0.0048
	31	11.8	79	52	8.90	0.25	0.3961	0.0082
	32	10.8	94	52	9.91	0.26	0.3472	0.0073
	33	10.2	106	51	10.50	0.23	0.3168	0.0068
	34	10.9	220	51	12.15	0.27	0.2088	0.0044
A0717P1								
	1	4.3	5	51	3.56	0.07	0.7815	0.0169
	2	4.6	3	48	1.79	0.08	0.8759	0.0194
	3	3.5	105	54	14.05	0.14	0.1636	0.0035
	4	4.0	5	46	3.40	0.18	0.7826	0.0184
	5	4.1	4	53	2.89	0.09	0.8119	0.0172
	6	3.4	62	49	13.25	0.23	0.2321	0.0058
	7	3.3	33	49	11.07	0.19	0.3484	0.0091
	8	5.3	2	48	1.25	0.07	0.9312	0.0203
	9	4.9	2	47	1.63	0.07	0.9000	0.0191
	10	3.9	5	50	3.48	0.17	0.7796	0.0178
	11	3.9	5	49	3.51	0.07	0.7848	0.0164
	12	3.7	13	48	6.92	0.25	0.5776	0.0176
	13	4.7	3	48	2.22	0.06	0.8665	0.0181
	14	3.8	151	61	14.65	0.15	0.1322	0.0028
	15	3.6	147	54	14.70	0.24	0.1367	0.0029
	16	3.7	7	47	4.65	0.09	0.7216	0.0155
	17	4.0	218	61	15.06	0.15	0.1084	0.0022
	18	3.5	211	94	15.39	0.19	0.1076	0.0023
A0718C1								
	1	3.5	704	114	15.35	0.41	0.0816	0.0017
	2	4.5	783	118	14.98	0.35	0.0831	0.0017
	3	4.1	728	135	15.16	0.39	0.0800	0.0016
	4	4.1	745	132	15.05	0.40	0.0799	0.0016

	5	4.7	771	115	15.01	0.34	0.0865	0.0018
	6	4.4	780	133	14.99	0.38	0.0794	0.0016
	7	4.1	744	126	15.13	0.40	0.0813	0.0017
	8	4.7	797	114	15.10	0.38	0.0853	0.0017
	9	4.2	800	135	15.28	0.37	0.0786	0.0016
	10	3.6	718	108	15.12	0.40	0.0823	0.0017
	11	4.0	709	136	15.16	0.38	0.0802	0.0016
	12	3.8	742	121	15.24	0.33	0.0806	0.0016
	13	3.8	753	112	15.31	0.40	0.0812	0.0016
	14	3.9	751	113	15.12	0.35	0.0823	0.0017
	15	4.2	738	115	15.10	0.30	0.0842	0.0017
	16	2.3	395	95	15.30	0.33	0.0912	0.0019
	17	2.5	450	102	15.26	0.37	0.0872	0.0018
	18	2.3	402	99	15.08	0.38	0.0909	0.0019
	19	2.8	565	110	15.52	0.36	0.0823	0.0017
	20	3.6	685	134	15.52	0.34	0.0790	0.0016
	21	3.2	595	106	15.17	0.37	0.0853	0.0018
	22	3.3	648	127	15.40	0.32	0.0805	0.0016
	23	2.9	570	118	15.17	0.39	0.0818	0.0017
	24	3.8	749	123	15.54	0.31	0.0802	0.0017
	25	3.1	548	97	15.37	0.34	0.0900	0.0021
	26	2.7	368	74	14.49	0.39	0.1126	0.0024
	27	4.8	344	62	13.49	0.31	0.1731	0.0035
	28	2.7	479	87	15.02	0.37	0.0932	0.0019
	29	2.5	302	77	14.96	0.29	0.1158	0.0024
	30	4.1	758	122	15.16	0.31	0.0815	0.0017
	31	3.3	530	103	15.10	0.29	0.0907	0.0019
	32	2.4	268	64	14.09	0.29	0.1297	0.0027
	33	2.2	192	54	13.57	0.28	0.1595	0.0033
	34	4.0	811	135	15.52	0.32	0.0776	0.0016
A0718D								
	1	1.2	397	71	15.74	0.34	0.0824	0.0017
	2	1.2	372	69	15.44	0.38	0.0846	0.0017
	3	1.3	443	73	15.65	0.36	0.0801	0.0017
	4	1.2	376	71	15.54	0.42	0.0819	0.0017
	5	1.1	315	67	15.20	0.42	0.0886	0.0018
	6	1.2	367	69	15.70	0.33	0.0833	0.0017
	7	1.1	300	68	15.55	0.37	0.0887	0.0019
	8	1.1	211	62	15.01	0.36	0.1019	0.0021
	9	1.1	280	73	15.28	0.30	0.0910	0.0019
	10	1.1	272	67	15.33	0.38	0.0920	0.0019
	11	1.1	203	67	15.17	0.35	0.1042	0.0022
	12	1.0	190	62	15.15	0.34	0.1051	0.0022
	13	1.0	187	66	15.38	0.39	0.1076	0.0023
	14	1.0	179	64	15.27	0.42	0.1100	0.0024
	15	1.0	174	62	15.21	0.44	0.1104	0.0023
	16	1.0	176	64	15.35	0.32	0.1095	0.0023
	17	1.0	174	65	15.14	0.35	0.1107	0.0023
	18	1.0	168	59	14.82	0.39	0.1113	0.0023
	19	1.0	173	61	14.59	0.32	0.1112	0.0024
	20	1.1	234	65	15.17	0.33	0.0975	0.0020
	21	1.4	408	71	15.92	0.33	0.0843	0.0017

	22	1.3	399	69	15.38	0.41	0.0823	0.0017
	23	1.0	199	67	15.32	0.33	0.1029	0.0022
	24	1.1	299	65	15.38	0.40	0.0898	0.0019
	25	1.2	309	71	15.53	0.38	0.0876	0.0018
	26	1.3	400	79	15.49	0.36	0.0806	0.0017
	27	1.1	338	71	15.29	0.34	0.0840	0.0018
	28	1.0	195	66	15.38	0.40	0.1028	0.0022
	29	1.0	168	62	15.27	0.44	0.1112	0.0023
	30	1.1	286	70	15.46	0.40	0.0907	0.0019
A0718F1								
	1	3.7	728	154	15.41	0.39	0.0740	0.0015
	2	3.7	666	164	15.51	0.45	0.0754	0.0015
	3	3.6	677	167	15.94	0.42	0.0751	0.0015
	4	3.6	673	176	15.79	0.40	0.0746	0.0015
	5	3.7	683	176	15.80	0.37	0.0744	0.0015
	6	3.8	758	171	15.58	0.38	0.0727	0.0015
	7	3.8	669	149	15.50	0.40	0.0792	0.0016
	8	3.9	630	140	15.81	0.50	0.0824	0.0018
	9	3.6	594	174	15.74	0.48	0.0762	0.0017
	10	3.7	621	180	15.66	0.32	0.0763	0.0016
	11	5.2	1960	186	15.24	0.33	0.0644	0.0013
	12	5.8	2214	197	15.42	0.30	0.0640	0.0013
	13	5.5	2226	192	15.41	0.35	0.0636	0.0013
	14	3.7	1845	142	15.49	0.35	0.0644	0.0013
	15	3.3	400	163	15.57	0.38	0.0859	0.0018
	16	4.0	428	175	15.81	0.39	0.0872	0.0018
	17	3.4	405	167	15.44	0.35	0.0854	0.0018
	18	3.4	388	169	15.28	0.32	0.0871	0.0018
	19	5.1	1866	197	15.62	0.36	0.0640	0.0013
	20	6.7	2109	187	15.53	0.40	0.0662	0.0013
	21	4.2	1150	185	15.66	0.34	0.0679	0.0014
	22	3.7	666	177	15.35	0.40	0.0745	0.0015
	23	3.7	579	175	15.65	0.33	0.0775	0.0016
	24	3.6	491	160	15.35	0.37	0.0828	0.0017
	25	3.7	578	162	15.54	0.37	0.0789	0.0016
	26	2.3	115	135	14.59	0.33	0.1433	0.0031
	27	2.7	213	151	15.24	0.39	0.1081	0.0023
	28	2.8	271	147	15.15	0.38	0.0978	0.0020
	29	2.2	105	131	14.46	0.38	0.1478	0.0032
	30	2.5	137	134	14.90	0.36	0.1347	0.0029
	31	2.1	107	119	14.42	0.34	0.1493	0.0032
	32	3.9	194	191	14.99	0.37	0.1190	0.0025
	33	3.7	899	177	15.67	0.37	0.0699	0.0014
	34	3.7	869	182	15.59	0.36	0.0702	0.0014
	35	4.4	954	193	15.87	0.28	0.0705	0.0014
A0719H1								
	1	9.4	140	43	14.10	0.18	0.1439	0.0033
	2	10.7	112	114	13.74	0.16	0.1661	0.0037
	3	9.7	118	104	13.89	0.16	0.1582	0.0036
	4	9.5	105	113	13.50	0.16	0.1694	0.0039
	5	10.4	109	146	13.72	0.15	0.1692	0.0037
	6	10.0	120	38	13.98	0.19	0.1603	0.0036

	7	10.0	108	88	13.90	0.17	0.1685	0.0039
	8	12.3	109	130	13.86	0.17	0.1691	0.0039
	9	11.5	125	83	13.76	0.13	0.1540	0.0036
	10	14.0	100	35	13.60	0.19	0.1839	0.0042
	11	12.0	102	52	13.29	0.20	0.2012	0.0045
	12	12.2	100	46	13.23	0.18	0.2152	0.0047
	13	9.6	143	93	14.26	0.20	0.1426	0.0032
	14	13.4	93	83	13.55	0.21	0.1876	0.0044
	15	8.8	135	18	14.24	0.26	0.1452	0.0033
	16	10.3	99	43	13.42	0.27	0.1894	0.0043
	17	10.2	155	48	14.24	0.32	0.1460	0.0032
	18	9.6	153	53	14.43	0.27	0.1378	0.0031
	19	9.9	134	51	14.39	0.30	0.1507	0.0033
A0720B1								
	1	14.6	273	97	10.03	0.08	0.2585	0.0052
	2	10.9	303	97	12.34	0.14	0.2164	0.0044
	3	15.3	287	97	10.04	0.10	0.2592	0.0052
	4	11.2	253	115	12.15	0.19	0.2241	0.0052
	5	9.5	261	207	14.20	0.16	0.1449	0.0030
	6	9.3	271	172	13.87	0.13	0.1565	0.0032
	7	10.8	236	166	13.43	0.19	0.1845	0.0058
	8	13.7	494	123	11.84	0.12	0.1587	0.0032
	9	13.0	447	123	12.12	0.11	0.1657	0.0034
	10	17.7	452	122	9.93	0.09	0.1789	0.0036
	11	15.0	413	108	11.25	0.11	0.1962	0.0044
	12	10.2	370	118	12.70	0.19	0.1677	0.0035
	13	12.0	380	125	13.00	0.13	0.1775	0.0036
	14	8.9	382	113	13.41	0.30	0.1593	0.0033
	15	11.8	282	139	12.63	0.24	0.1940	0.0041
	16	12.1	349	113	12.61	0.14	0.1965	0.0040
	17	13.1	325	93	11.78	0.17	0.2458	0.0080
	18	15.3	258	121	9.25	0.10	0.2297	0.0046
	19	12.9	293	147	12.08	0.15	0.1910	0.0039
	20	9.8	304	167	13.27	0.23	0.1491	0.0030
	21	12.9	294	146	12.21	0.24	0.1922	0.0040
	22	12.4	278	163	12.95	0.20	0.1868	0.0038
	23	10.7	274	231	13.81	0.23	0.1425	0.0029
	24	14.2	297	119	11.61	0.17	0.2309	0.0047
	25	16.2	329	123	9.38	0.17	0.1988	0.0041
	26	12.7	273	211	13.14	0.24	0.1617	0.0034
	27	18.4	335	127	9.46	0.14	0.2108	0.0043
	28	15.5	276	115	9.66	0.19	0.2329	0.0047
	29	7.5	291	123	13.82	0.26	0.1575	0.0036
	30	10.7	348	102	11.98	0.23	0.1855	0.0037
	31	15.1	296	124	10.89	0.26	0.2201	0.0045
	32	17.7	324	95	8.56	0.16	0.2426	0.0049
	33	17.5	310	117	10.10	0.16	0.2343	0.0048
A0720J2								
	1	7.3	221	57	14.23	0.43	0.1483	0.0034
	2	9.9	175	46	12.89	0.39	0.2313	0.0049
	3	6.6	187	54	13.71	0.47	0.1558	0.0036
	4	4.0	105	47	13.44	0.50	0.1784	0.0042

	5	3.7	110	47	13.70	0.40	0.1657	0.0036
	6	4.1	163	52	14.03	0.39	0.1390	0.0030
	7	4.6	190	54	14.44	0.45	0.1308	0.0028
	8	4.1	146	49	14.14	0.38	0.1431	0.0031
	9	5.7	167	53	13.74	0.36	0.1566	0.0034
	10	5.4	22	44	7.55	0.23	0.5224	0.0143
	11	6.0	34	46	9.02	0.26	0.4485	0.0106
	12	5.3	57	50	11.87	0.31	0.2911	0.0064
	13	3.9	31	48	10.40	0.27	0.3674	0.0082
	14	9.0	51	45	9.09	0.22	0.4491	0.0100
	15	7.0	256	71	15.08	0.37	0.1196	0.0025
	16	10.1	329	65	14.60	0.39	0.1349	0.0028
	17	8.9	288	59	14.60	0.33	0.1384	0.0030
	18	9.3	215	75	14.26	0.35	0.1493	0.0031
	19	9.7	278	60	14.21	0.37	0.1518	0.0034
	20	11.3	383	68	14.64	0.29	0.1302	0.0029
	21	8.5	286	77	14.68	0.33	0.1199	0.0025
	22	9.5	401	82	14.99	0.30	0.1064	0.0022
	23	7.3	303	68	14.68	0.34	0.1142	0.0024
	24	7.7	173	71	14.34	0.28	0.1546	0.0034
	25	7.8	265	64	14.46	0.28	0.1329	0.0028
	26	7.8	324	64	14.86	0.28	0.1178	0.0025
	27	8.9	268	59	14.20	0.29	0.1485	0.0031
	28	9.1	363	70	14.87	0.29	0.1168	0.0024
	29	8.7	365	72	14.83	0.28	0.1109	0.0023
A0720P1								
	1	1.7	2	106	15.16	0.19	0.0954	0.0022
	2	1.9	5	100	14.85	0.14	0.0925	0.0020
	3	1.5	2	98	14.92	0.14	0.1008	0.0022
	4	3.0	5	84	14.60	0.13	0.1097	0.0026
	5	1.4	3	88	14.66	0.13	0.1208	0.0032
	6	1.4	3	70	14.47	0.10	0.1212	0.0027
	7	1.1	2	110	14.76	0.14	0.1104	0.0024
	8	1.6	3	96	14.76	0.12	0.1070	0.0023
	9	1.4	4	91	14.81	0.14	0.1107	0.0024
	10	1.4	4	78	14.81	0.16	0.1124	0.0027
	11	1.8	3	81	14.52	0.12	0.1261	0.0034
	12	1.7	1	73	14.71	0.11	0.1154	0.0030
	13	1.3	3	110	14.92	0.12	0.1001	0.0021
	14	1.6	2	98	14.92	0.10	0.1019	0.0022
	15	1.1	1	76	14.74	0.09	0.1163	0.0026
	16	1.1	1	86	14.56	0.13	0.1236	0.0028
	17	1.1	1	71	14.59	0.13	0.1165	0.0027
	18	0.9	1	78	14.63	0.13	0.1237	0.0028
	19	0.9	1	69	14.53	0.12	0.1285	0.0029
A0721A1								
	1	21.9	511	222	15.31	0.24	0.0921	0.0019
	2	24.3	501	240	15.01	0.27	0.0945	0.0019
	3	22.1	541	232	15.25	0.25	0.0897	0.0018
	4	13.4	448	123	15.09	0.25	0.1002	0.0024
	5	6.0	637	59	15.21	0.21	0.0858	0.0017
	6	7.2	970	70	15.46	0.22	0.0766	0.0016

	7	7.9	1223	79	15.55	0.23	0.0709	0.0014
	8	7.1	499	57	15.08	0.26	0.1037	0.0025
	9	7.7	1159	81	15.71	0.26	0.0717	0.0015
	10	21.0	536	221	15.36	0.25	0.0896	0.0019
	11	22.1	467	228	15.06	0.27	0.0968	0.0020
	12	8.6	1009	89	15.41	0.24	0.0753	0.0015
	13	9.0	1287	86	15.70	0.28	0.0717	0.0015
	14	10.7	1121	67	15.14	0.25	0.0853	0.0028
	15	7.4	1122	78	15.34	0.30	0.0730	0.0015
	16	26.4	470	264	15.11	0.24	0.0959	0.0020
	17	34.8	472	352	14.80	0.23	0.0944	0.0019
	18	10.0	1287	76	15.45	0.27	0.0762	0.0016
	19	10.0	1200	79	15.30	0.26	0.0765	0.0017
A0721E2								
	1	6.2	138	31	14.10	0.19	0.1728	0.0039
	2	6.1	120	29	13.82	0.18	0.1870	0.0044
	3	5.2	165	38	14.68	0.22	0.1488	0.0033
	4	9.3	76	37	10.93	0.20	0.3487	0.0085
	5	5.8	121	38	14.15	0.25	0.1812	0.0040
	6	6.2	124	23	14.02	0.14	0.1824	0.0041
	7	6.0	138	43	14.45	0.15	0.1658	0.0038
	8	4.3	12	22	6.35	0.24	0.5824	0.0150
	9	6.2	173	20	14.70	0.19	0.1514	0.0033
	10	6.1	122	38	13.99	0.19	0.1815	0.0041
	11	5.0	29	16	9.63	0.24	0.4060	0.0104
	12	4.3	38	3	11.13	0.20	0.3247	0.0075
	13	4.3	105	14	14.32	0.26	0.1792	0.0041
	14	4.8	192	18	15.08	0.24	0.1376	0.0030
	15	4.1	49	15	12.38	0.24	0.2718	0.0066
	16	6.2	147	27	14.41	0.24	0.1627	0.0038
	17	3.8	38	26	11.37	0.24	0.3122	0.0076
A0721E4								
	1	10.4	147	50	12.49	0.29	0.2573	0.0059
	2	4.3	141	55	14.54	0.31	0.1488	0.0045
	3	13.7	183	49	12.21	0.24	0.2688	0.0063
	4	16.3	178	50	11.83	0.28	0.3070	0.0074
	5	10.4	145	54	12.62	0.29	0.2441	0.0056
	6	4.7	116	53	14.09	0.44	0.1753	0.0115
	7	18.1	230	53	12.48	0.28	0.2709	0.0057
	8	11.2	100	49	10.96	0.22	0.3375	0.0074
	9	8.5	123	51	12.70	0.33	0.2487	0.0075
	10	47.2	115	46	5.55	0.12	0.6321	0.0134
	11	55.0	177	46	6.74	0.32	0.5683	0.0189
	12	30.3	122	47	7.81	0.42	0.4961	0.0232
	13	7.3	109	57	13.00	0.29	0.2293	0.0050
	14	5.0	214	53	15.39	0.36	0.1311	0.0035
	15	13.3	125	46	11.13	0.20	0.3452	0.0072
	16	7.0	148	73	14.44	0.29	0.1630	0.0035
	17	12.0	181	48	12.68	0.27	0.2522	0.0053
	18	5.7	115	48	13.62	0.31	0.2136	0.0048
	19	8.5	133	49	13.15	0.32	0.2468	0.0086
	20	15.6	155	137	14.01	0.32	0.1774	0.0058

	21	11.0	153	57	13.09	0.32	0.2416	0.0051
	22	5.8	190	64	15.19	0.34	0.1364	0.0033
	23	33.6	220	249	14.70	0.28	0.1559	0.0044
	24	2.9	65	49	14.04	0.39	0.2037	0.0048
	25	4.1	200	55	15.56	0.35	0.1227	0.0027
	26	6.3	144	54	14.14	0.33	0.1823	0.0042
	27	8.1	89	93	13.74	0.35	0.2109	0.0051
	28	26.3	207	257	14.99	0.30	0.1395	0.0029
	29	12.0	195	91	14.53	0.33	0.1586	0.0034
	30	6.7	160	57	14.16	0.27	0.1730	0.0037
	31	20.9	181	216	14.87	0.29	0.1423	0.0031
A0721E5								
	1	4.7	64	46	7.88	0.12	0.4886	0.0099
	2	4.6	65	46	8.09	0.14	0.4875	0.0099
	3	4.7	66	45	8.01	0.12	0.4930	0.0100
	4	5.7	106	47	9.15	0.12	0.4220	0.0085
	5	4.8	67	45	8.09	0.14	0.4875	0.0099
	6	5.7	104	47	9.15	0.17	0.4229	0.0086
	7	5.8	103	48	9.03	0.17	0.4273	0.0086
	8	5.7	103	47	9.15	0.14	0.4323	0.0088
	9	4.7	72	47	8.41	0.15	0.4699	0.0095
	10	4.7	72	47	8.33	0.13	0.4682	0.0095
	11	4.8	72	46	8.09	0.13	0.4691	0.0095
	12	4.6	66	46	8.01	0.15	0.4891	0.0099
	13	4.6	66	46	8.00	0.14	0.4874	0.0099
	14	5.2	113	48	9.66	0.17	0.3870	0.0078
	15	4.4	71	46	8.49	0.13	0.4554	0.0092
	16	4.1	74	47	8.90	0.12	0.4245	0.0086
	17	4.6	86	49	9.15	0.19	0.4238	0.0086
	18	4.5	63	47	8.02	0.14	0.4886	0.0099
	19	4.6	66	48	8.11	0.13	0.4832	0.0098
	20	4.4	63	48	8.07	0.12	0.4793	0.0098
	21	4.8	73	47	8.36	0.14	0.4654	0.0094
	22	4.9	75	48	8.30	0.12	0.4594	0.0093
	23	4.9	74	48	8.19	0.13	0.4686	0.0095
	24	4.9	73	47	8.23	0.11	0.4715	0.0095
	25	4.8	70	47	8.15	0.12	0.4740	0.0096
	26	4.6	65	46	7.99	0.11	0.4801	0.0098
	27	4.7	64	46	7.75	0.12	0.4870	0.0099
	28	4.6	64	48	8.03	0.10	0.4868	0.0099
	29	4.7	64	46	7.77	0.11	0.4887	0.0099
	30	4.8	66	45	7.93	0.13	0.4849	0.0098
A0721G1								
	1	6.4	898	56	15.43	0.21	0.0784	0.0016
	2	4.9	750	53	15.42	0.17	0.0771	0.0016
	3	5.3	1112	17	15.50	0.21	0.0705	0.0015
	4	5.8	1123	34	15.26	0.20	0.0720	0.0015
	5	5.6	997	38	15.35	0.20	0.0719	0.0015
	6	5.0	791	43	15.41	0.20	0.0751	0.0016
	7	5.7	1077	16	15.34	0.23	0.0710	0.0015
	8	5.3	813	14	15.40	0.19	0.0761	0.0016
	9	8.2	831	26	15.20	0.20	0.0869	0.0021

	10	7.5	791	28	15.20	0.20	0.0862	0.0023
	11	7.7	838	26	15.08	0.19	0.0850	0.0020
	12	6.8	899	29	15.36	0.18	0.0781	0.0017
	13	8.6	1597	21	15.37	0.20	0.0699	0.0014
	14	6.6	1099	30	15.23	0.19	0.0739	0.0015
	15	6.7	1188	36	15.26	0.19	0.0719	0.0015
	16	10.0	938	22	14.97	0.22	0.0866	0.0020
A0722B1								
	1	7.1	156	115	14.31	0.09	0.1231	0.0026
	2	3.9	107	44	13.37	0.07	0.1822	0.0038
	3	4.1	112	45	13.45	0.07	0.1822	0.0038
	4	4.2	99	46	13.09	0.10	0.1922	0.0041
	5	4.1	106	43	13.31	0.10	0.1873	0.0040
	6	3.8	74	42	12.56	0.09	0.2262	0.0048
	7	4.0	70	44	12.38	0.11	0.2450	0.0054
	8	4.0	109	42	13.39	0.11	0.1858	0.0039
	9	4.4	98	46	12.88	0.21	0.2075	0.0049
	10	4.1	112	45	13.33	0.14	0.1830	0.0038
	11	4.0	109	44	13.15	0.13	0.1849	0.0039
	12	3.6	104	64	13.97	0.21	0.1463	0.0035
	13	3.8	132	64	14.28	0.14	0.1288	0.0029
	14	4.0	107	46	13.34	0.12	0.1883	0.0040
	15	4.0	114	46	13.39	0.10	0.1771	0.0037
	16	4.1	138	49	13.77	0.09	0.1588	0.0033
	17	3.9	100	43	13.31	0.35	0.1802	0.0042
	18	4.1	112	45	13.41	0.07	0.1829	0.0039
	19	4.0	110	45	13.41	0.09	0.1827	0.0038
	20	4.0	107	45	13.31	0.08	0.1884	0.0040
A0722D1								
	1	15.7	1014	467	12.52	0.16	0.0821	0.0017
	2	11.2	764	329	14.38	0.20	0.0834	0.0017
	3	3.1	379	137	15.00	0.25	0.0901	0.0019
	4	13.2	752	347	12.75	0.14	0.0887	0.0018
	5	13.4	679	462	14.70	0.22	0.0802	0.0016
	6	10.5	306	329	9.07	0.12	0.1134	0.0023
	7	13.5	821	403	13.96	0.20	0.0810	0.0016
	8	16.5	382	452	13.91	0.21	0.1080	0.0022
	9	14.1	425	491	14.68	0.19	0.0917	0.0019
	10	19.4	356	614	14.23	0.19	0.1038	0.0021
	11	7.4	274	247	14.24	0.19	0.1164	0.0024
	12	14.9	431	508	14.60	0.24	0.0947	0.0019
	13	13.5	381	459	14.70	0.21	0.0990	0.0021
	14	6.8	306	219	14.11	0.18	0.1127	0.0023
	15	20.7	363	759	14.74	0.23	0.1000	0.0020
	16	22.0	374	744	14.56	0.22	0.0997	0.0020
	17	21.1	357	711	14.58	0.21	0.1035	0.0021
	18	20.4	358	694	14.48	0.21	0.1022	0.0021
	19	8.0	304	250	13.83	0.15	0.1125	0.0023
	20	6.9	301	212	13.99	0.19	0.1140	0.0023
	21	12.3	704	395	14.93	0.22	0.0821	0.0017
	22	22.3	1187	608	8.91	0.17	0.0942	0.0019
	23	7.3	276	208	13.17	0.19	0.1231	0.0025

	24	18.1	338	634	14.66	0.29	0.1034	0.0021
	25	15.9	469	545	14.73	0.19	0.0932	0.0019
	26	12.1	321	327	12.66	0.07	0.1185	0.0024
	27	14.2	400	494	14.81	0.07	0.0968	0.0020
	28	12.5	377	477	14.75	0.07	0.0949	0.0020
	29	14.4	395	524	14.72	0.09	0.0963	0.0020
	30	13.6	334	465	14.52	0.07	0.1043	0.0022
	31	15.0	393	521	14.57	0.09	0.0965	0.0020
	32	15.4	431	487	14.65	0.12	0.0988	0.0020
	33	13.7	359	493	14.64	0.08	0.0993	0.0020
	34	13.1	551	442	14.90	0.07	0.0859	0.0017
	35	13.0	680	328	14.27	0.12	0.0900	0.0019
	36	17.6	622	555	13.29	0.11	0.0898	0.0019
	37	6.7	299	217	14.18	0.09	0.1117	0.0023
	38	9.7	327	276	14.21	0.12	0.1167	0.0024
A0722E1								
	1	1.1	180	49	15.28	0.34	0.1236	0.0026
	2	1.2	192	48	15.27	0.46	0.1224	0.0027
	3	1.2	284	53	15.62	0.39	0.0961	0.0020
	4	0.9	166	50	15.30	0.32	0.1122	0.0025
	5	0.9	163	47	15.24	0.42	0.1138	0.0025
	6	1.0	258	50	15.48	0.39	0.0971	0.0020
	7	1.0	227	52	15.38	0.41	0.0994	0.0021
	8	1.3	278	51	15.24	0.41	0.1057	0.0022
	9	1.3	149	47	14.29	0.38	0.1530	0.0033
	10	1.1	126	48	14.34	0.35	0.1506	0.0032
	11	1.3	43	46	11.12	0.25	0.3167	0.0068
	12	1.1	92	44	13.64	0.35	0.1822	0.0039
	13	1.2	145	46	14.35	0.36	0.1444	0.0030
	14	1.1	79	45	13.27	0.30	0.1969	0.0042
	15	1.3	77	46	12.76	0.32	0.2226	0.0050
	16	1.3	41	47	10.83	0.24	0.3243	0.0072
	17	1.4	76	47	12.51	0.36	0.2337	0.0049
	18	1.7	134	50	13.43	0.27	0.1850	0.0039
	19	1.7	87	47	12.41	0.29	0.2393	0.0055
	20	1.2	77	45	12.98	0.27	0.2085	0.0044
	21	1.7	78	50	12.04	0.32	0.2578	0.0056
	22	1.7	158	49	13.76	0.32	0.1644	0.0036
	23	1.5	71	46	12.14	0.27	0.2508	0.0059
	24	3.1	115	127	13.81	0.28	0.1614	0.0034
	25	1.3	97	46	13.27	0.28	0.1894	0.0040
	26	2.6	54	48	9.29	0.25	0.4009	0.0092
	27	1.3	64	46	12.19	0.28	0.2437	0.0052
	28	1.2	62	46	12.24	0.36	0.2405	0.0051
	29	13.0	234	380	13.46	0.35	0.1323	0.0027
	30	9.0	439	237	13.83	0.36	0.1027	0.0022
	31	5.2	288	187	13.39	0.37	0.1079	0.0022
	32	2.2	105	78	11.32	0.39	0.1740	0.0037
	33	1.7	26	48	7.44	0.15	0.4222	0.0089
	34	3.6	81	91	8.78	0.26	0.2292	0.0049
A0722G3								
	1	1.4	244	79	14.64	0.34	0.0920	0.0019

	2	1.6	272	88	14.78	0.35	0.0909	0.0019
	3	1.4	211	87	14.61	0.26	0.0959	0.0020
	4	1.4	234	81	14.87	0.31	0.0939	0.0019
	5	1.5	210	88	14.53	0.31	0.1002	0.0021
	6	1.5	210	96	14.55	0.37	0.0972	0.0020
	7	1.6	225	106	14.50	0.35	0.0972	0.0020
	8	2.5	239	68	13.84	0.34	0.1387	0.0031
	9	2.2	626	128	15.11	0.36	0.0726	0.0015
	10	2.1	602	129	15.10	0.38	0.0719	0.0015
	11	1.8	541	122	15.06	0.31	0.0730	0.0015
	12	2.6	876	144	15.45	0.51	0.0694	0.0014
	13	2.6	832	153	15.41	0.41	0.0694	0.0014
	14	2.6	846	157	15.31	0.33	0.0695	0.0014
	15	2.5	833	153	15.31	0.40	0.0697	0.0014
	16	2.4	805	131	15.06	0.35	0.0698	0.0014
	17	2.6	830	147	15.14	0.34	0.0695	0.0014
	18	2.5	847	146	15.15	0.35	0.0697	0.0014
	19	2.5	844	144	15.23	0.32	0.0697	0.0014
	20	2.5	846	126	15.10	0.33	0.0704	0.0014
	21	2.6	879	124	15.13	0.29	0.0702	0.0014
	22	2.7	876	124	14.98	0.31	0.0711	0.0015
A0722G5								
	1	12.2	304	231	14.64	0.28	0.1258	0.0027
	2	10.5	260	176	14.28	0.16	0.1330	0.0027
	3	7.9	171	167	14.04	0.26	0.1474	0.0034
	4	10.1	291	237	14.72	0.17	0.1212	0.0025
	5	10.6	142	91	12.70	0.14	0.2155	0.0045
	6	13.9	116	74	12.23	0.12	0.2434	0.0051
	7	11.5	266	151	13.91	0.17	0.1494	0.0032
	8	12.6	105	73	12.14	0.16	0.2526	0.0053
	9	11.6	103	73	12.18	0.16	0.2506	0.0053
	10	11.5	206	97	13.02	0.13	0.1988	0.0041
	11	11.1	204	101	13.04	0.13	0.1945	0.0040
	12	10.5	305	204	14.41	0.25	0.1199	0.0027
	13	11.0	364	232	14.71	0.21	0.1163	0.0024
	14	9.9	295	238	14.51	0.21	0.1215	0.0026
A0722H1								
	1	1.8	127	53	12.99	0.36	0.1974	0.0042
	2	2.1	74	49	10.97	0.32	0.3074	0.0076
	3	1.9	59	51	10.62	0.29	0.3300	0.0071
	4	2.2	38	49	8.29	0.21	0.4384	0.0093
	5	3.2	76	50	9.51	0.25	0.3779	0.0077
	6	2.9	148	52	12.49	0.28	0.2374	0.0049
	7	2.1	102	52	12.12	0.38	0.2433	0.0050
	8	1.9	82	52	11.90	0.36	0.2692	0.0056
	9	1.7	95	51	12.53	0.27	0.2290	0.0048
	10	3.2	114	50	11.06	0.29	0.3000	0.0062
	11	2.8	152	51	12.66	0.28	0.2288	0.0047
	12	3.8	109	50	10.13	0.27	0.3382	0.0070
	13	3.8	115	50	10.34	0.26	0.3234	0.0066
	14	2.7	58	50	9.26	0.24	0.3988	0.0083
	15	2.4	91	50	11.37	0.29	0.2870	0.0059

	16	1.9	108	53	12.72	0.30	0.2224	0.0048
	17	2.3	63	50	10.19	0.30	0.3565	0.0084
	18	1.8	79	50	11.67	0.29	0.2606	0.0055
	19	3.2	147	51	11.84	0.28	0.2529	0.0052
	20	2.6	95	50	11.18	0.39	0.2898	0.0068
	21	3.6	160	50	11.81	0.37	0.2597	0.0054
	22	3.9	137	50	10.92	0.33	0.2977	0.0061
	23	2.5	94	50	11.27	0.34	0.2837	0.0059
	24	2.3	195	53	13.39	0.46	0.1699	0.0041
	25	8.2	289	81	12.29	0.87	0.2282	0.0071
	26	4.5	282	104	14.08	0.83	0.1362	0.0031
	27	1.7	304	58	14.85	0.27	0.1123	0.0023
	28	2.4	63	49	9.93	0.29	0.3606	0.0074
	29	2.2	75	50	11.28	0.29	0.3046	0.0066
A0722J1								
	1	4.7	68	43	13.06	0.16	0.2350	0.0051
	2	6.5	150	42	13.65	0.10	0.1947	0.0041
	3	8.0	143	47	13.11	0.09	0.2197	0.0047
	4	8.0	357	61	15.31	0.11	0.1059	0.0022
	5	7.7	361	53	15.22	0.11	0.1083	0.0023
	6	8.1	384	71	15.40	0.13	0.1084	0.0023
	7	6.8	181	41	14.11	0.10	0.1668	0.0036
	8	14.5	146	44	11.22	0.09	0.3245	0.0067
	9	7.3	120	45	12.79	0.10	0.2397	0.0055
	10	6.7	224	51	14.55	0.12	0.1453	0.0031
A0723A1								
	1	1.1	665	52	15.58	0.47	0.0737	0.0016
	2	1.1	786	51	15.47	0.47	0.0718	0.0015
	3	1.2	85	46	12.72	0.36	0.2047	0.0044
	4	1.1	783	55	15.52	0.22	0.0718	0.0015
	5	1.2	381	49	14.76	0.35	0.0909	0.0021
	6	1.7	127	49	12.85	0.42	0.1844	0.0040
	7	5.1	189	192	13.82	0.42	0.1322	0.0029
	8	1.2	840	54	15.54	0.29	0.0711	0.0014
	9	0.8	244	50	15.26	0.52	0.0917	0.0020
	10	1.1	857	54	15.44	0.27	0.0697	0.0014
	11	1.1	875	53	15.53	0.27	0.0683	0.0014
	12	1.5	158	48	13.82	0.49	0.1551	0.0034
	13	1.2	244	48	14.39	0.32	0.1094	0.0023
	14	1.0	817	57	15.53	0.35	0.0693	0.0014
	15	1.0	483	49	15.46	0.32	0.0768	0.0016
	16	1.2	447	52	15.26	0.39	0.0838	0.0017
	17	1.1	488	51	15.52	0.42	0.0798	0.0017
	18	1.1	659	51	15.51	0.42	0.0734	0.0015
	19	1.0	595	42	15.40	0.39	0.0728	0.0015
	20	1.1	500	45	15.35	0.30	0.0806	0.0017
	21	5.0	289	174	14.67	0.32	0.1057	0.0022
	22	10.7	146	341	13.26	0.40	0.1572	0.0033
A0723D1								
	1	1.4	110	56	13.27	0.35	0.1684	0.0035
	2	1.2	139	51	13.96	0.31	0.1410	0.0029
	3	3.5	211	133	13.05	0.32	0.1228	0.0025

	4	6.0	317	222	14.01	0.17	0.1026	0.0021
	5	2.5	143	90	12.99	0.18	0.1497	0.0031
	6	8.4	212	268	11.56	0.28	0.1287	0.0026
	7	6.3	183	258	14.18	0.37	0.1281	0.0027
	8	5.6	232	209	13.55	0.30	0.1191	0.0025
	9	9.8	283	330	11.55	0.22	0.1138	0.0023
	10	8.8	344	277	13.71	0.29	0.1056	0.0022
	11	5.4	399	199	14.91	0.32	0.0941	0.0019
	12	6.2	275	224	14.42	0.24	0.1101	0.0023
	13	3.8	328	137	13.13	0.21	0.1044	0.0021
	14	3.8	294	126	12.05	0.19	0.1121	0.0023
	15	5.6	358	183	12.26	0.21	0.1067	0.0022
	16	6.1	338	200	12.79	0.23	0.1077	0.0022
	17	7.3	318	229	11.53	0.17	0.1133	0.0023
	18	8.1	408	247	9.05	0.12	0.1089	0.0022
	19	7.0	289	218	12.08	0.22	0.1155	0.0024
	20	1.5	76	52	12.57	0.19	0.2232	0.0047
	21	3.1	234	114	13.06	0.22	0.1177	0.0024
	22	5.5	246	218	14.56	0.22	0.1113	0.0023
	23	6.3	341	199	12.38	0.20	0.1089	0.0022
	24	7.2	235	235	12.20	0.17	0.1250	0.0026
	25	4.6	210	172	13.62	0.24	0.1233	0.0026
	26	4.6	174	177	14.18	0.26	0.1331	0.0027
	27	5.6	254	179	11.85	0.21	0.1216	0.0025
	28	8.2	278	290	12.15	0.20	0.1127	0.0023
	29	1.3	102	53	13.60	0.22	0.1673	0.0035
	30	2.8	94	104	12.97	0.33	0.1894	0.0042
	31	4.6	195	169	14.31	0.23	0.1258	0.0026
	32	2.7	186	130	14.70	0.26	0.1172	0.0025
A0724H								
	1	5.1	91	60	9.55	0.25	0.4105	0.0085
	2	3.4	83	61	11.13	0.33	0.3388	0.0100
	3	3.7	84	58	10.53	0.39	0.3622	0.0079
	4	4.5	94	60	10.37	0.26	0.3784	0.0079
	5	4.3	83	58	9.97	0.27	0.3943	0.0082
	6	5.1	83	55	9.10	0.22	0.4429	0.0093
	7	5.3	82	55	8.78	0.22	0.4584	0.0094
	8	4.6	81	57	9.54	0.22	0.4185	0.0086
	9	5.0	80	57	9.17	0.25	0.4382	0.0090
	10	3.6	81	62	10.70	0.24	0.3471	0.0072
	11	5.0	81	57	9.14	0.26	0.4355	0.0089
	12	3.1	84	67	11.45	0.29	0.3159	0.0066
	13	3.7	82	60	10.59	0.28	0.3585	0.0076
	14	5.1	88	59	9.78	0.26	0.4248	0.0087
	15	4.7	81	57	9.30	0.24	0.4315	0.0088
	16	3.9	80	58	10.18	0.29	0.3847	0.0079
	17	5.2	77	55	8.66	0.20	0.4602	0.0094
	18	4.2	83	59	10.05	0.29	0.3836	0.0082
	19	3.4	85	65	11.14	0.29	0.3210	0.0067
	20	2.8	76	60	11.25	0.33	0.3200	0.0067
	21	4.6	76	54	8.93	0.26	0.4449	0.0091
	22	4.0	78	56	9.82	0.32	0.3961	0.0081

	23	4.7	77	53	8.87	0.20	0.4436	0.0091
	24	5.3	74	54	8.29	0.22	0.4801	0.0098
	25	4.7	72	52	8.50	0.20	0.4667	0.0096
	26	4.5	82	58	9.78	0.25	0.4105	0.0084
	27	4.9	82	56	9.33	0.21	0.4339	0.0089
	28	4.4	81	58	9.64	0.24	0.4063	0.0086
	29	3.2	81	63	11.06	0.28	0.3348	0.0069
	30	2.7	85	69	12.08	0.34	0.2746	0.0057
	31	5.8	83	53	8.37	0.20	0.4761	0.0109
	32	5.2	80	54	8.80	0.21	0.4668	0.0095
	33	3.7	86	61	10.77	0.30	0.3538	0.0073
	34	2.9	88	68	12.01	0.36	0.2832	0.0060
	35	3.3	98	70	12.10	0.29	0.2854	0.0068
A0725J4								
	1	2.7	276	66	14.77	0.26	0.1003	0.0021
	2	2.6	253	81	14.47	0.34	0.1066	0.0023
	3	10.4	414	352	14.88	0.29	0.0880	0.0018
	4	5.5	417	186	15.11	0.34	0.0870	0.0018
	5	10.1	378	150	15.24	0.33	0.0902	0.0019
	6	9.9	377	216	15.17	0.32	0.0914	0.0019
	7	10.6	379	221	14.93	0.29	0.0897	0.0019
	8	10.1	407	248	14.93	0.29	0.0889	0.0018
	9	10.9	388	286	14.97	0.27	0.0907	0.0019
	10	4.2	343	81	14.90	0.31	0.0938	0.0020
	11	2.7	244	72	14.56	0.32	0.1093	0.0023
	12	9.7	296	309	14.86	0.29	0.1002	0.0021
	13	7.1	396	106	14.81	0.29	0.0905	0.0019
	14	11.2	360	266	14.97	0.25	0.0914	0.0019
	15	12.1	376	190	15.36	0.28	0.0866	0.0018
	16	10.5	394	259	15.11	0.25	0.0843	0.0018
	17	12.0	304	440	14.84	0.29	0.0958	0.0020
	18	2.8	219	90	14.31	0.29	0.1139	0.0024
	19	1.9	363	53	14.79	0.26	0.1005	0.0021
A0725K								
	1	15.1	284	532	12.58	0.23	0.1117	0.0023
	2	19.6	287	710	10.13	0.17	0.1133	0.0023
	3	21.6	289	732	9.41	0.15	0.1138	0.0023
	4	1.4	141	50	13.10	0.19	0.1564	0.0033
	5	15.6	285	546	12.76	0.23	0.1134	0.0023
	6	15.4	265	542	12.96	0.37	0.1130	0.0025
	7	17.3	348	625	10.61	0.19	0.1054	0.0022
	8	17.2	297	651	11.05	0.32	0.1080	0.0023
	9	27.4	311	1071	7.11	0.15	0.1107	0.0023
	10	22.9	300	761	8.93	0.19	0.1117	0.0023
	11	22.3	315	777	9.72	0.16	0.1082	0.0022
	12	20.5	271	543	12.27	0.22	0.1286	0.0028
	13	20.8	254	663	11.17	0.17	0.1190	0.0025
	14	24.2	272	833	9.46	0.18	0.1158	0.0024
	15	22.2	333	762	10.31	0.24	0.1061	0.0022
	16	17.3	266	570	12.18	0.25	0.1146	0.0023
	17	18.0	281	620	12.40	0.27	0.1122	0.0023
	18	16.3	252	475	12.15	0.20	0.1228	0.0025

	19	18.9	301	639	10.18	0.21	0.1124	0.0023
	20	31.2	285	1139	6.35	0.15	0.1133	0.0024
	21	24.8	301	891	7.69	0.06	0.1114	0.0023
	22	14.9	312	519	12.50	0.22	0.1091	0.0023
	23	18.9	277	662	10.07	0.20	0.1137	0.0023
	24	8.8	231	278	13.23	0.23	0.1204	0.0026
	25	16.9	292	548	13.01	0.23	0.1103	0.0023
	26	18.5	256	673	10.86	0.14	0.1131	0.0023
	27	18.5	265	580	11.62	0.11	0.1164	0.0024
	28	7.7	406	264	10.96	0.11	0.0999	0.0020
	29	1.4	173	52	13.58	0.14	0.1361	0.0028
	30	8.8	412	326	14.36	0.14	0.0935	0.0019
	31	23.2	280	770	9.26	0.10	0.1138	0.0023
	32	1.6	228	55	13.77	0.13	0.1188	0.0025
	33	1.5	162	53	13.29	0.12	0.1456	0.0030
	34	16.1	231	503	13.04	0.11	0.1226	0.0025
	35	8.3	735	297	13.22	0.16	0.0809	0.0016
A0726D1								
	1	131.4	28	617	3.53	0.05	0.1435	0.0029
	2	123.1	36	319	3.69	0.08	0.2107	0.0044
	3	101.0	24	605	4.38	0.05	0.1515	0.0034
	4	141.8	35	585	3.74	0.08	0.1566	0.0032
	5	75.8	3	44	9.90	0.16	0.3691	0.0092
	6	93.1	8	54	7.62	0.17	0.4533	0.0098
	7	59.0	9	139	3.90	0.07	0.2364	0.0077
	8	172.5	28	559	4.59	0.06	0.1418	0.0029
	9	169.0	42	1145	3.44	0.06	0.1292	0.0026
	10	89.4	1	39	14.60	0.35	0.1558	0.0036
	11	119.1	1	38	15.17	0.67	0.1278	0.0027
	12	95.8	16	382	4.43	0.12	0.1591	0.0032
	13	177.3	16	221	4.79	0.11	0.1599	0.0033
	14	190.2	34	650	4.09	0.11	0.1385	0.0029
	15	202.8	31	510	3.94	0.10	0.1428	0.0030
	16	105.5	27	114	3.51	0.08	0.3592	0.0100
	17	277.9	19	419	4.56	0.08	0.1267	0.0025
	18	204.6	25	698	3.86	0.06	0.1260	0.0025
	19	152.3	28	607	3.80	0.06	0.1403	0.0028
	20	235.7	15	201	5.66	0.08	0.1538	0.0031
	21	451.4	10	3141	3.33	0.05	0.1082	0.0022
	22	131.2	27	461	4.30	0.08	0.1628	0.0033
	23	208.6	42	1442	3.54	0.05	0.1225	0.0025
	24	156.6	28	461	4.00	0.06	0.1546	0.0033
	25	90.0	20	249	3.79	0.06	0.2103	0.0045
	26	101.3	20	288	3.83	0.06	0.1830	0.0037
	27	31.0	1	39	10.27	0.18	0.3469	0.0073
	28	10.8	1	39	5.82	0.12	0.5929	0.0126
	29	36.7	2	43	5.34	0.11	0.3279	0.0067
A0727C1								
	1	1.0	628	54	15.29	0.48	0.0698	0.0014
	2	1.0	637	53	15.15	0.44	0.0690	0.0014
	3	1.2	670	58	15.59	0.46	0.0708	0.0015
	4	1.0	499	47	15.53	0.52	0.0760	0.0016

	5	1.0	554	50	15.89	0.49	0.0715	0.0015
	6	0.9	459	47	14.99	0.48	0.0744	0.0016
	7	1.2	1065	62	15.65	0.45	0.0629	0.0013
	8	1.2	874	62	15.29	0.45	0.0649	0.0013
	9	1.3	821	60	15.57	0.42	0.0660	0.0013
	10	1.1	573	51	15.33	0.49	0.0730	0.0015
	11	0.8	245	42	14.68	0.45	0.0902	0.0019
	12	1.2	689	61	15.43	0.45	0.0671	0.0014
	13	1.0	506	52	15.84	0.55	0.0725	0.0015
	14	1.2	681	56	15.46	0.37	0.0681	0.0014
	15	1.4	1042	70	15.72	0.53	0.0626	0.0013
	16	1.5	1003	65	15.35	0.54	0.0652	0.0013
	17	1.6	553	57	15.14	0.44	0.0806	0.0017
	18	1.9	791	64	15.35	0.48	0.0737	0.0015
	19	2.2	904	68	15.27	0.48	0.0722	0.0015
	20	1.0	363	49	14.96	0.46	0.0792	0.0017
	21	1.0	464	52	15.72	0.40	0.0759	0.0016
	22	3.7	570	61	14.25	0.66	0.1151	0.0026
	23	0.9	336	46	15.16	0.51	0.0818	0.0018
	24	1.3	681	59	15.50	0.60	0.0716	0.0015
	25	2.4	794	61	15.23	0.54	0.0804	0.0018
	26	1.1	434	49	15.65	0.57	0.0807	0.0017
	27	1.3	373	52	15.26	0.52	0.0880	0.0018
	28	1.4	497	53	15.30	0.50	0.0822	0.0017
	29	0.9	410	47	15.52	0.40	0.0774	0.0016
	30	1.0	460	47	15.12	0.53	0.0751	0.0016
	31	1.0	596	53	15.77	0.48	0.0691	0.0014
	32	1.7	596	69	15.68	0.49	0.0744	0.0015
	33	1.5	427	55	15.00	0.42	0.0879	0.0018
A0727H1								
	1	2.7	1238	70	15.27	0.24	0.0762	0.0015
	2	2.7	1212	70	15.39	0.25	0.0751	0.0015
	3	2.6	1140	72	14.94	0.23	0.0747	0.0015
	4	2.7	1247	70	15.19	0.20	0.0738	0.0015
	5	2.6	1218	69	15.28	0.23	0.0741	0.0015
	6	2.8	1187	69	15.20	0.24	0.0759	0.0015
	7	2.9	1308	74	15.09	0.23	0.0726	0.0015
	8	2.9	1302	75	14.88	0.23	0.0726	0.0015
	9	2.9	1384	82	15.09	0.21	0.0711	0.0014
	10	3.4	1277	71	14.97	0.23	0.0782	0.0016
	11	3.2	1286	70	15.10	0.26	0.0762	0.0016
	12	2.5	1344	67	14.92	0.20	0.0721	0.0015
	13	2.6	1354	62	14.74	0.21	0.0728	0.0015
	14	3.0	1496	89	15.33	0.24	0.0690	0.0014
	15	4.3	1292	61	14.84	0.38	0.0874	0.0018
	16	3.3	1345	66	15.05	0.24	0.0764	0.0016
	17	2.9	1255	83	15.51	0.28	0.0724	0.0015
	18	2.7	1233	71	15.24	0.22	0.0737	0.0015
	19	3.5	1379	73	15.04	0.29	0.0762	0.0016
	20	4.1	1417	72	14.95	0.21	0.0799	0.0016
	21	2.7	1259	70	14.95	0.22	0.0734	0.0015
	22	2.9	1172	69	15.25	0.26	0.0770	0.0016

	23	2.6	1233	70	15.24	0.23	0.0735	0.0015
	24	2.8	1241	76	15.20	0.22	0.0746	0.0015
	25	2.9	1269	79	15.37	0.25	0.0730	0.0015
	26	2.7	1317	81	15.35	0.23	0.0707	0.0014
	27	2.8	1185	72	14.95	0.24	0.0752	0.0015
	28	3.1	1269	91	15.39	0.33	0.0725	0.0015
	29	3.0	598	62	14.90	0.80	0.1008	0.0022
	30	7.1	963	58	13.77	0.44	0.1263	0.0029
	31	2.8	1256	75	14.91	0.26	0.0734	0.0015
	32	2.5	1199	68	15.06	0.24	0.0735	0.0015
	33	2.7	1219	74	14.78	0.25	0.0732	0.0015
	34	2.7	1210	70	14.92	0.27	0.0729	0.0015
	35	2.7	1170	70	15.08	0.23	0.0750	0.0015
	36	2.9	1323	72	14.77	0.24	0.0729	0.0015
	37	2.6	1231	70	14.98	0.25	0.0732	0.0015
A0727N1								
	1	2.8	242	46	13.00	0.32	0.1719	0.0036
	2	2.0	265	44	13.92	0.35	0.1367	0.0028
	3	2.2	405	47	14.33	0.30	0.1138	0.0023
	4	1.9	252	45	13.92	0.31	0.1372	0.0029
	5	2.0	421	47	14.97	0.38	0.1091	0.0023
	6	4.1	163	132	10.73	0.56	0.1260	0.0032
	7	1.9	263	45	13.98	0.33	0.1331	0.0028
	8	2.3	211	43	13.29	0.33	0.1691	0.0036
	9	3.1	562	48	14.37	0.42	0.1153	0.0031
	10	1.9	240	42	13.99	0.43	0.1427	0.0031
	11	1.9	205	43	13.69	0.39	0.1517	0.0032
	12	2.7	185	46	12.78	0.34	0.1982	0.0042
	13	1.9	297	45	14.08	0.40	0.1257	0.0027
	14	2.5	192	46	12.97	0.25	0.1858	0.0039
	15	2.8	284	47	13.37	0.33	0.1571	0.0036
	16	7.7	1481	55	14.89	0.44	0.1085	0.0057
	17	2.5	1579	40	15.48	0.50	0.0709	0.0015
	18	3.0	1656	48	15.19	0.47	0.0738	0.0016
	19	12.1	1180	52	13.63	0.35	0.1649	0.0036
	20	5.0	1315	52	15.15	0.49	0.0956	0.0021
	21	2.0	1158	48	15.57	0.49	0.0720	0.0015
	22	2.1	1258	47	15.25	0.39	0.0707	0.0014
	23	8.3	588	78	8.72	0.30	0.1382	0.0030
A0801M								
	1	3.8	808	141	15.10	0.29	0.0747	0.0015
	2	4.0	772	111	15.07	0.27	0.0823	0.0017
	3	4.0	840	131	15.12	0.30	0.0768	0.0016
	4	3.5	592	126	14.89	0.24	0.0824	0.0017
	5	3.7	770	128	15.08	0.35	0.0772	0.0016
	6	3.8	823	141	15.09	0.27	0.0750	0.0015
	7	3.1	568	86	14.40	0.33	0.0901	0.0019
	8	3.3	500	135	14.81	0.36	0.0829	0.0017
	9	1.7	219	60	13.91	0.28	0.1215	0.0025
	10	1.4	59	46	11.15	0.20	0.2704	0.0057
	11	2.0	281	58	14.19	0.34	0.1221	0.0025
	12	2.1	298	58	13.99	0.26	0.1204	0.0025

	13	2.4	472	80	14.87	0.30	0.0909	0.0019
	14	2.4	467	78	14.60	0.27	0.0913	0.0018
	15	3.8	617	129	14.97	0.32	0.0819	0.0017
	16	3.9	778	128	15.04	0.31	0.0777	0.0016
	17	3.9	807	129	14.85	0.35	0.0764	0.0015
	18	3.2	663	88	14.71	0.35	0.0853	0.0018
	19	3.9	741	95	14.62	0.33	0.0865	0.0018
	20	3.0	610	99	14.99	0.29	0.0836	0.0017
	21	2.6	480	89	14.72	0.31	0.0889	0.0018
	22	2.6	473	93	14.95	0.34	0.0894	0.0018
	23	2.5	425	81	14.69	0.31	0.0970	0.0020
	24	2.1	240	68	14.15	0.31	0.1278	0.0027
	25	1.4	5	48	2.82	0.14	0.7105	0.0153
	26	1.6	116	54	12.88	0.32	0.1830	0.0041
	27	1.4	12	47	5.40	0.18	0.5832	0.0131
A0805C1								
	1	1.9	358	78	15.06	0.30	0.0913	0.0019
	2	1.8	350	75	14.92	0.25	0.0940	0.0019
	3	1.9	356	78	14.88	0.23	0.0921	0.0019
	4	2.0	227	58	14.19	0.26	0.1331	0.0029
	5	1.9	419	77	15.34	0.30	0.0889	0.0018
	6	2.4	323	63	14.30	0.33	0.1166	0.0047
	7	1.8	380	74	15.35	0.25	0.0898	0.0018
	8	2.0	488	84	15.22	0.32	0.0824	0.0017
	9	1.9	437	85	15.24	0.26	0.0845	0.0017
	10	1.1	133	54	14.34	0.25	0.1346	0.0028
	11	0.8	5	43	4.61	0.20	0.6587	0.0151
	12	0.9	55	48	13.07	0.23	0.2112	0.0045
	13	1.2	153	63	14.54	0.27	0.1212	0.0025
	14	1.4	214	64	14.61	0.30	0.1104	0.0023
	15	0.8	9	45	6.61	0.15	0.5374	0.0117
	16	1.3	284	71	15.06	0.30	0.0888	0.0018
	17	1.6	426	85	15.44	0.33	0.0795	0.0016
	18	1.8	271	71	14.66	0.28	0.1045	0.0022
	19	1.1	174	54	14.66	0.32	0.1165	0.0025
	20	2.0	340	73	15.01	0.32	0.1008	0.0021
	21	2.1	652	92	15.26	0.29	0.0760	0.0016
	22	1.9	397	76	15.17	0.30	0.0907	0.0019
	23	1.5	247	65	14.85	0.28	0.1067	0.0022
	24	1.2	203	48	14.58	0.23	0.1180	0.0024
	25	1.6	292	65	15.20	0.32	0.1018	0.0021
	26	1.9	421	88	15.51	0.35	0.0840	0.0017
	27	1.8	391	87	15.30	0.31	0.0856	0.0017
	28	1.6	299	67	14.94	0.34	0.0992	0.0020
	29	1.8	396	86	15.34	0.30	0.0843	0.0017
	30	2.2	462	85	14.88	0.26	0.0864	0.0018
	31	1.6	398	73	15.31	0.43	0.0863	0.0018
	32	1.8	536	81	15.48	0.26	0.0797	0.0016
	33	1.5	272	69	15.03	0.31	0.0981	0.0021
	34	1.7	440	79	15.16	0.30	0.0840	0.0017
E9803K1								
	1	14.5	5	380	12.82	0.21	0.0995	0.0022

	2	22.4	9	463	10.92	0.12	0.0994	0.0020
	3	18.7	9	439	10.67	0.10	0.1023	0.0021
	4	12.0	10	226	11.03	0.14	0.1159	0.0024
	5	20.5	9	405	10.02	0.11	0.1100	0.0025
	6	17.3	8	357	11.77	0.14	0.0999	0.0021
	7	2.7	0	43	3.41	0.14	0.7765	0.0169
	8	5.0	2	49	8.92	0.09	0.4383	0.0090
	9	4.8	9	106	11.65	0.14	0.1861	0.0050
	10	1.7	5	56	14.70	0.14	0.1034	0.0023
	11	11.4	4	275	10.46	0.12	0.1140	0.0024
	12	9.2	3	249	11.19	0.21	0.1469	0.0033
	13	8.0	3	243	13.16	0.20	0.1277	0.0028
	14	8.6	5	282	12.05	0.17	0.1136	0.0024
	15	1.6	3	49	12.36	0.13	0.1822	0.0039
	16	23.5	13	546	9.01	0.10	0.1069	0.0022
	17	25.4	8	639	8.75	0.09	0.1081	0.0022
	18	25.2	9	767	8.37	0.15	0.1045	0.0021
	19	7.4	4	237	14.01	0.18	0.1263	0.0027
	20	2.3	3	84	13.99	0.16	0.1293	0.0029
E9805K								
	1	6.1	9	43	1.55	0.06	0.8913	0.0187
	2	8.6	6	42	0.80	0.04	0.9325	0.0198
	3	8.7	7	43	0.82	0.04	0.9387	0.0201
	4	11.8	6	43	0.58	0.03	0.9470	0.0199
	5	6.0	9	43	1.45	0.06	0.8316	0.0176
	6	2.5	55	62	5.72	0.11	0.2166	0.0051
	7	3.6	124	224	11.62	0.22	0.0780	0.0024
	8	3.8	104	80	6.48	0.13	0.1763	0.0039
	9	5.5	116	63	6.27	0.14	0.2387	0.0053
	10	9.4	83	49	4.77	0.11	0.4648	0.0119
	11	10.6	79	49	4.49	0.11	0.5250	0.0116
	12	3.4	106	71	7.60	0.15	0.1978	0.0047
	13	9.4	8	44	0.90	0.04	0.9407	0.0199
	14	3.1	95	74	12.59	0.30	0.2545	0.0060
	15	4.9	121	80	11.92	0.25	0.2842	0.0063
	16	5.0	495	197	15.66	0.30	0.0870	0.0019
	17	5.3	522	191	15.46	0.29	0.0896	0.0020
E9806B2								
	1	1.4	190	63	14.62	0.18	0.1078	0.0026
	2	1.2	21	200	15.05	0.21	0.0806	0.0018
	3	3.6	666	98	15.20	0.19	0.0796	0.0021
	4	3.1	678	62	15.06	0.21	0.0750	0.0016
	5	2.0	670	91	15.15	0.23	0.0767	0.0017
	6	2.2	694	87	14.88	0.18	0.0764	0.0016
	7	2.1	686	410	14.67	0.17	0.0889	0.0020
	8	8.2	369	260	14.81	0.21	0.0995	0.0039
	9	8.9	390	330	14.80	0.21	0.0878	0.0020
	10	8.7	392	460	14.90	0.19	0.0877	0.0019
	11	8.1	462	170	14.87	0.21	0.0884	0.0019
	12	9.2	380	43	5.58	0.11	0.5906	0.0123
	13	7.4	63	53	9.84	0.23	0.3530	0.0108
	14	2.7	70	41	5.79	0.11	0.5868	0.0127

	15	7.7	68	30	5.71	0.69	0.5490	0.0211
	16	1.0	9	159	11.60	0.17	0.1762	0.0042
	17	0.9	41	84	11.89	0.38	0.2486	0.0068
	18	1.2	226	449	14.92	0.20	0.0982	0.0023
	19	0.9	82	144	13.42	0.20	0.1677	0.0042
	20	2.1	66	41	8.39	0.15	0.4446	0.0098
	21	3.7	61	111	12.22	0.24	0.2375	0.0062
	22	0.9	49	30	6.58	0.48	0.5410	0.0154
	23	0.9	12	42	8.16	0.31	0.4366	0.0118
	24	1.0	19	77	11.98	0.22	0.2384	0.0060
	25	1.1	56	104	12.79	0.23	0.1758	0.0053
E9806G1								
	1	2.5	72	37	10.54	0.47	0.3473	0.0087
	2	1.9	221	109	14.13	0.36	0.1231	0.0029
	3	1.2	133	51	14.35	0.63	0.1452	0.0039
	4	1.8	31	41	8.72	0.20	0.4494	0.0102
	5	0.7	23	13	10.94	0.32	0.3060	0.0086
	6	2.1	503	27	15.00	0.35	0.0849	0.0019
	7	1.8	366	19	15.01	0.30	0.0921	0.0021
	8	1.1	33	12	10.72	0.40	0.3336	0.0097
	9	1.0	128	10	14.11	0.28	0.1327	0.0030
	10	0.7	20	8	10.05	0.24	0.3544	0.0100
	11	1.1	32	8	10.50	0.27	0.3341	0.0084
	12	1.1	23	8	8.99	0.42	0.4033	0.0140
	13	1.0	134	9	14.02	0.26	0.1286	0.0029
	14	4.0	129	14	10.81	0.31	0.3156	0.0069
	15	0.9	22	8	9.96	0.26	0.3534	0.0086
	16	1.4	32	9	9.25	0.28	0.3940	0.0167
	17	1.1	47	7	11.71	0.21	0.2647	0.0064
	18	1.7	38	9	9.56	0.21	0.3862	0.0101
E9808H								
	1	2.3	37	49	9.23	0.15	0.4302	0.0088
	2	2.3	40	49	9.51	0.15	0.4311	0.0090
	3	2.0	34	50	9.23	0.17	0.4336	0.0090
	4	2.6	43	51	9.15	0.20	0.4435	0.0098
	5	2.5	39	51	8.86	0.14	0.4572	0.0097
	6	2.5	37	45	8.53	0.15	0.4807	0.0100
	7	2.6	36	49	8.56	0.13	0.4879	0.0101
	8	2.5	37	46	8.38	0.14	0.4897	0.0101
	9	2.3	30	49	8.37	0.12	0.4963	0.0103
	10	1.9	23	52	8.09	0.17	0.5136	0.0108
	11	2.2	28	48	7.84	0.14	0.5144	0.0108
	12	3.1	37	48	7.78	0.15	0.5194	0.0109
	13	2.3	26	46	7.50	0.13	0.5376	0.0110
	14	3.5	38	48	7.38	0.20	0.5442	0.0123
	15	2.4	27	45	7.22	0.15	0.5506	0.0115
	16	2.6	27	45	7.05	0.13	0.5529	0.0114
	17	2.9	30	45	6.98	0.11	0.5672	0.0117
	18	3.8	39	44	6.81	0.11	0.5728	0.0117
	19	2.1	20	46	6.81	0.15	0.5820	0.0123
	20	2.8	24	45	6.17	0.14	0.6176	0.0126
	21	2.4	16	43	5.21	0.12	0.6653	0.0139

	22	3.8	25	45	5.16	0.13	0.6737	0.0138
	23	3.0	19	44	5.02	0.09	0.6744	0.0139
	24	3.7	22	45	4.78	0.11	0.6874	0.0148
	25	4.1	23	45	4.69	0.13	0.6939	0.0148
	26	3.3	15	45	4.01	0.10	0.7376	0.0154
	27	4.1	15	46	3.30	0.10	0.7820	0.0163
	28	2.5	31	46	7.56	0.12	0.5159	0.0107
	29	2.7	30	46	7.29	0.15	0.5339	0.0124
	30	3.1	35	45	7.25	0.11	0.5388	0.0112
	31	6.6	12	43	1.84	0.10	0.8691	0.0176
E9810C1								
	1	12.7	32	335	4.94	0.12	0.2722	0.0060
	2	14.0	33	347	4.73	0.11	0.2761	0.0058
	3	15.6	38	523	5.22	0.09	0.2096	0.0043
	4	12.1	32	408	5.14	0.08	0.2401	0.0049
	5	11.6	31	373	5.09	0.09	0.2412	0.0050
	6	18.5	49	604	5.37	0.07	0.1845	0.0038
	7	20.7	53	574	5.59	0.11	0.2066	0.0044
	8	17.6	49	435	5.38	0.18	0.2364	0.0052
	9	9.8	33	314	5.18	0.11	0.2402	0.0051
	10	3.8	22	147	5.09	0.08	0.2550	0.0067
	11	21.4	65	699	5.83	0.14	0.1706	0.0038
	12	9.0	28	277	4.95	0.12	0.2679	0.0056
	13	9.3	26	312	5.09	0.09	0.2734	0.0058
	14	4.8	19	181	4.82	0.09	0.2962	0.0063
	15	17.8	39	260	4.74	0.15	0.3465	0.0074
	16	14.2	36	498	5.32	0.08	0.2111	0.0043
	17	17.2	41	358	5.03	0.09	0.2650	0.0059
	18	11.5	30	220	4.55	0.10	0.3344	0.0069
	19	8.8	26	237	4.88	0.17	0.3018	0.0068
	20	5.1	21	252	5.43	0.10	0.2336	0.0050
	21	19.7	69	578	5.54	0.09	0.1618	0.0034
	22	15.6	49	394	5.24	0.12	0.2096	0.0046
	23	19.9	67	565	5.53	0.09	0.1665	0.0035
	24	18.4	71	608	5.68	0.15	0.1511	0.0032
	25	10.2	31	275	5.22	0.09	0.2808	0.0058
	26	11.4	34	274	5.00	0.09	0.2802	0.0058
	27	17.4	47	466	5.27	0.11	0.2170	0.0045
	28	14.5	40	429	5.29	0.14	0.2189	0.0046
	29	16.6	45	446	5.49	0.10	0.2185	0.0046
E9814B2								
	1	21.1	213	51	11.14	0.25	0.3221	0.0097
	2	14.8	313	57	13.45	0.33	0.1897	0.0041
	3	17.0	375	50	13.49	0.31	0.1989	0.0046
	4	12.1	144	47	11.49	0.26	0.2923	0.0062
	5	36.8	105	46	6.28	0.17	0.6075	0.0133
	6	68.9	85	47	3.55	0.07	0.7705	0.0155
	7	115.2	96	45	2.49	0.06	0.8340	0.0168
	8	61.5	76	47	3.50	0.07	0.7664	0.0155
	9	78.4	96	44	3.36	0.11	0.7801	0.0168
	10	260.6	147	43	1.75	0.05	0.8981	0.0181
	11	29.6	147	49	8.75	0.22	0.4736	0.0100

	12	60.4	101	44	4.34	0.10	0.7300	0.0153
	13	41.8	141	47	7.02	0.16	0.5713	0.0117
	14	10.5	504	65	14.95	0.27	0.1083	0.0023
	15	207.6	178	44	2.54	0.05	0.8454	0.0170
	16	8.8	511	81	15.23	0.29	0.0931	0.0020
	17	9.2	219	53	13.73	0.35	0.1765	0.0037
	18	9.9	164	51	12.78	0.25	0.2250	0.0047
	19	13.4	181	48	12.32	0.29	0.2629	0.0064
	20	28.1	82	47	6.45	0.17	0.5996	0.0127
	21	23.3	105	50	8.44	0.19	0.4814	0.0105
	22	19.7	212	49	11.36	0.31	0.3073	0.0088
	23	34.8	160	49	8.36	0.17	0.4851	0.0100
E1608G1								
	1	28.4	215	367	6.31	0.04	0.0975	0.0020
	2	30.7	176	369	6.17	0.06	0.1028	0.0021
	3	28.9	231	365	6.37	0.05	0.0979	0.0020
	4	28.1	228	373	6.36	0.04	0.0956	0.0020
	5	28.2	220	367	6.34	0.04	0.0969	0.0020
	6	28.7	227	386	6.17	0.03	0.0956	0.0019
	7	37.5	254	438	6.10	0.03	0.0956	0.0019
	8	49.0	265	430	6.03	0.03	0.1020	0.0021
	9	35.7	268	481	6.11	0.03	0.0926	0.0019
	10	80.1	340	841	6.25	0.03	0.0926	0.0019
	11	33.9	201	281	7.22	0.06	0.1210	0.0025
	12	34.2	202	251	7.50	0.09	0.1255	0.0026
	13	28.6	190	181	7.33	0.07	0.1399	0.0028
	14	28.2	175	249	6.85	0.07	0.1219	0.0025
	15	30.8	175	319	6.64	0.07	0.1145	0.0024
	16	34.2	205	538	6.02	0.05	0.0949	0.0019
	17	41.8	214	486	6.35	0.06	0.1024	0.0021
	18	42.9	229	476	6.18	0.06	0.1011	0.0021
	19	42.2	199	334	6.73	0.07	0.1209	0.0025
	20	42.2	197	426	6.46	0.06	0.1106	0.0023
E1612D1								
	1	3.3	4	34	3.11	0.17	0.8080	0.0185
	2	8.1	11	37	3.50	0.08	0.8050	0.0165
	3	4.5	8	36	4.53	0.11	0.7311	0.0152
	4	9.5	9	37	2.74	0.06	0.8385	0.0171
	5	5.2	11	36	4.88	0.12	0.7155	0.0151
	6	12.9	104	38	10.13	0.13	0.4042	0.0082
	7	9.8	37	36	7.09	0.13	0.5844	0.0120
	8	8.0	57	36	9.60	0.15	0.4350	0.0089
	9	11.5	7	37	1.92	0.04	0.8936	0.0182
	10	8.1	33	36	7.42	0.12	0.5718	0.0117
	11	7.3	19	37	5.84	0.10	0.6657	0.0137
E1612I2								
	1	4.2	5	46	3.35	0.08	0.7193	0.0149
	2	3.4	13	45	7.27	0.14	0.5102	0.0108
	3	4.0	16	46	7.59	0.13	0.5035	0.0104
	4	3.1	26	39	10.21	0.16	0.3591	0.0075
	5	6.0	6	46	2.92	0.07	0.7369	0.0152
	6	3.7	184	42	15.10	0.24	0.1217	0.0025

	7	4.3	9	41	4.86	0.13	0.6404	0.0141
	8	3.7	19	40	8.62	0.13	0.4347	0.0092
	9	4.3	6	40	3.40	0.08	0.7132	0.0148
G9702E1								
	1	88.4	105	47	1.20	0.02	0.9052	0.0182
	2	53.6	287	48	4.32	0.06	0.7084	0.0142
	3	3.7	66	46	8.72	0.17	0.4323	0.0092
	4	22.9	352	49	8.41	0.14	0.4591	0.0092
	5	27.5	357	48	7.55	0.11	0.5111	0.0103
	6	19.6	318	47	8.57	0.14	0.4494	0.0091
	7	28.4	446	49	8.47	0.24	0.4605	0.0093
	8	32.1	358	46	6.94	0.16	0.5517	0.0112
	9	10.2	82	45	5.71	0.11	0.6142	0.0124
	10	54.0	219	46	3.64	0.09	0.7547	0.0152
	11	93.7	145	46	1.61	0.02	0.8949	0.0179
	12	90.9	144	46	1.64	0.03	0.8990	0.0180
	13	90.2	156	45	1.77	0.02	0.8899	0.0178
	14	106.1	118	45	1.18	0.02	0.9295	0.0187
	15	90.9	167	45	1.88	0.02	0.8861	0.0177
	16	96.5	165	45	1.74	0.03	0.8958	0.0179
	17	55.2	264	46	4.14	0.15	0.7369	0.0170
	18	11.7	79	43	5.17	0.12	0.6542	0.0134
	19	60.3	283	44	4.07	0.07	0.7405	0.0149
	20	54.7	123	44	2.25	0.06	0.8438	0.0177
	21	6.2	54	48	6.53	0.11	0.5743	0.0117
G9702F								
	1	8.4	12	63	1.21	0.04	0.7961	0.0250
	2	18.1	85	288	4.89	0.10	0.2882	0.0088
	3	13.0	32	51	2.24	0.05	0.7458	0.0222
	4	13.9	16	46	1.11	0.02	0.8058	0.0245
	5	22.4	112	127	4.95	0.15	0.3261	0.0126
	6	5.6	14	55	2.04	0.06	0.7336	0.0282
	7	14.1	89	67	4.52	0.09	0.4783	0.0171
G9704G1								
	1	1.1	114	76	14.78	0.13	0.1095	0.0025
	2	1.1	115	66	14.77	0.15	0.1082	0.0025
	3	1.1	115	53	14.82	0.13	0.1099	0.0026
	4	1.1	126	79	14.93	0.13	0.1022	0.0024
	5	1.1	115	38	14.85	0.15	0.1077	0.0025
	6	1.1	147	71	14.87	0.13	0.0967	0.0021
	7	1.1	141	81	14.81	0.13	0.0982	0.0023
	8	1.1	140	76	14.70	0.12	0.1032	0.0023
	9	1.1	130	65	14.35	0.15	0.1004	0.0028
	10	1.2	170	36	14.97	0.16	0.0934	0.0021
	11	1.2	119	105	14.64	0.12	0.1096	0.0025
	12	1.3	110	95	14.30	0.13	0.1200	0.0030
	13	1.3	141	88	14.81	0.13	0.1034	0.0025
	14	1.6	167	93	14.89	0.12	0.0962	0.0022
	15	1.1	119	67	14.67	0.13	0.1067	0.0025
	16	1.3	212	105	14.93	0.22	0.0873	0.0026
	17	1.5	73	74	14.20	0.14	0.1464	0.0036
	18	1.0	88	21	14.48	0.13	0.1217	0.0031

	19	1.0	47	63	13.59	0.16	0.1604	0.0051
	20	1.0	54	40	14.00	0.16	0.1550	0.0040
G9705R1								
	1	0.9	193	53	14.93	0.24	0.1062	0.0022
	2	1.1	221	52	14.69	0.16	0.1104	0.0023
	3	1.1	215	51	14.70	0.14	0.1096	0.0023
	4	1.0	168	48	14.48	0.17	0.1221	0.0026
	5	1.1	157	47	14.29	0.21	0.1260	0.0027
	6	1.1	218	48	14.68	0.17	0.1044	0.0022
	7	1.2	169	47	14.29	0.16	0.1260	0.0027
	8	1.3	185	47	14.21	0.17	0.1278	0.0027
	9	1.0	148	47	14.20	0.18	0.1265	0.0026
	10	1.5	158	45	13.91	0.21	0.1526	0.0033
	11	1.2	290	55	14.98	0.17	0.0938	0.0019
	12	1.2	250	52	14.70	0.17	0.1030	0.0022
	13	1.6	248	47	14.43	0.21	0.1251	0.0029
	14	1.5	281	47	14.71	0.34	0.1191	0.0063
	15	1.0	290	48	14.98	0.20	0.0952	0.0022
	16	1.1	160	48	14.26	0.15	0.1247	0.0027
	17	1.1	159	47	14.56	0.17	0.1243	0.0026
	18	1.0	200	48	14.73	0.17	0.1092	0.0023
	19	1.0	211	46	14.90	0.21	0.1069	0.0023
	20	1.2	169	46	14.18	0.24	0.1340	0.0028
	21	1.3	174	45	14.33	0.24	0.1360	0.0029
	22	1.0	161	47	14.54	0.19	0.1221	0.0026
G9705R2								
	1	1.6	44	47	10.25	0.10	0.3455	0.0073
	2	1.6	115	50	13.63	0.09	0.1831	0.0039
	3	2.0	109	52	12.70	0.09	0.2220	0.0048
	4	1.6	129	54	13.28	0.07	0.1783	0.0038
	5	1.4	124	66	14.06	0.14	0.1554	0.0039
	6	1.7	90	51	12.69	0.07	0.2215	0.0047
	7	1.6	38	52	10.00	0.10	0.3582	0.0079
	8	1.9	131	59	13.48	0.06	0.1813	0.0039
	9	1.7	47	50	10.54	0.11	0.3205	0.0068
	10	2.0	6	43	2.48	0.11	0.7487	0.0162
	11	1.8	17	43	6.07	0.12	0.5639	0.0127
	12	1.7	36	41	9.47	0.11	0.3893	0.0093
	13	2.2	57	50	10.47	0.06	0.3177	0.0070
	14	1.8	83	42	11.88	0.07	0.2476	0.0052
	15	2.2	126	56	13.19	0.08	0.1793	0.0038
	16	1.9	56	44	10.67	0.11	0.3125	0.0072
	17	1.8	165	43	13.65	0.07	0.1644	0.0034
	18	1.8	57	42	10.76	0.12	0.3084	0.0069
	19	1.6	12	39	5.42	0.12	0.5931	0.0130
	20	1.5	169	46	14.39	0.06	0.1387	0.0029
	21	1.6	44	39	10.48	0.11	0.3400	0.0077
	22	1.9	8	40	3.50	0.13	0.7081	0.0154
	23	1.6	157	45	14.02	0.09	0.1589	0.0036
	24	1.5	94	45	12.50	0.09	0.2030	0.0044
	25	1.8	64	43	11.19	0.16	0.2956	0.0086
	26	1.6	69	47	11.81	0.09	0.2555	0.0056

	27	1.6	204	47	14.27	0.07	0.1318	0.0028
	28	1.5	128	48	13.87	0.09	0.1681	0.0038
	29	1.5	29	47	8.84	0.11	0.4131	0.0099
	30	2.1	56	47	10.10	0.10	0.3482	0.0083
	31	1.4	23	46	8.29	0.14	0.4449	0.0097
	32	1.5	22	50	8.03	0.12	0.4521	0.0098
G9705Y								
	1	1.4	453	59	15.29	0.26	0.0840	0.0017
	2	1.2	410	58	15.59	0.26	0.0835	0.0017
	3	1.2	418	59	15.41	0.26	0.0839	0.0017
	4	1.2	428	64	15.55	0.27	0.0828	0.0017
	5	1.2	444	61	15.48	0.21	0.0826	0.0017
	6	1.4	473	64	15.33	0.22	0.0840	0.0017
	7	1.4	486	68	15.38	0.24	0.0825	0.0017
	8	1.4	454	66	15.33	0.25	0.0850	0.0017
	9	1.2	435	64	15.35	0.25	0.0830	0.0017
	10	1.3	443	61	15.44	0.22	0.0829	0.0017
	11	1.3	458	59	15.33	0.16	0.0838	0.0017
	12	1.5	452	55	15.27	0.17	0.0883	0.0018
	13	1.5	389	54	15.04	0.19	0.0958	0.0020
	14	1.4	508	60	15.43	0.17	0.0812	0.0016
	15	1.3	432	56	15.45	0.16	0.0851	0.0017
	16	1.3	441	63	15.12	0.21	0.0830	0.0017
	17	1.2	359	56	15.10	0.18	0.0908	0.0019
	18	1.2	200	48	14.53	0.21	0.1207	0.0025
	19	1.2	192	50	14.47	0.20	0.1222	0.0026
	20	1.2	187	47	14.54	0.18	0.1239	0.0026
	21	1.3	194	48	14.33	0.18	0.1313	0.0027
	22	1.3	205	47	14.41	0.20	0.1257	0.0026
	23	1.3	220	48	14.48	0.19	0.1215	0.0025
	24	1.3	216	49	14.43	0.17	0.1200	0.0025
G9706N1								
	1	1.6	146	44	12.91	0.12	0.1747	0.0039
	2	1.7	116	23	12.47	0.12	0.2029	0.0044
	3	1.8	154	49	12.94	0.13	0.1827	0.0040
	4	1.8	92	34	11.91	0.12	0.2434	0.0055
	5	1.6	93	40	11.97	0.14	0.2303	0.0053
	6	2.1	153	49	12.47	0.32	0.2061	0.0057
	7	1.5	87	39	12.24	0.15	0.2248	0.0057
	8	3.1	94	138	11.73	0.18	0.2160	0.0055
	9	1.7	117	38	12.50	0.23	0.2074	0.0052
	10	12.7	122	140	10.27	0.15	0.1995	0.0056
	11	14.4	118	237	10.12	0.12	0.2052	0.0047
	12	11.6	130	232	9.14	0.16	0.1767	0.0047
	13	14.2	118	218	10.04	0.10	0.2024	0.0044
	14	22.0	147	437	6.78	0.09	0.1636	0.0035
	15	16.5	126	363	8.29	0.13	0.1942	0.0046
	16	1.5	171	39	13.70	0.14	0.1497	0.0036
	17	1.8	144	49	12.89	0.14	0.1958	0.0046
	18	1.5	102	26	12.55	0.21	0.2075	0.0050
	19	1.7	371	50	14.76	0.15	0.1095	0.0034
	20	1.6	105	44	12.44	0.12	0.2161	0.0050

	21	1.7	155	38	13.20	0.13	0.1760	0.0040
	22	2.0	382	42	14.36	0.19	0.1208	0.0029
	23	1.8	398	39	14.70	0.18	0.1121	0.0025
	24	1.7	145	42	13.22	0.15	0.1849	0.0041
	25	1.6	446	25	14.60	0.12	0.0973	0.0021
	26	1.6	132	39	12.87	0.13	0.1858	0.0042
	27	1.6	536	34	14.87	0.18	0.0915	0.0020
	28	1.8	135	37	12.78	0.16	0.2046	0.0047
	29	1.4	679	31	15.36	0.11	0.0787	0.0017
	30	1.8	254	38	13.92	0.20	0.1374	0.0033
	31	1.3	512	20	15.19	0.17	0.0892	0.0020
G9706V1								
	1	2.0	211	72	13.64	0.14	0.1532	0.0034
	2	14.4	352	300	9.77	0.15	0.3431	0.0080
	3	5.8	468	120	6.67	0.20	0.5078	0.0123
	4	2.6	107	68	9.19	0.14	0.3841	0.0089
	5	9.6	312	249	10.24	0.16	0.3238	0.0079
	6	13.4	408	373	10.67	0.13	0.1705	0.0036
	7	6.7	451	187	10.29	0.16	0.1778	0.0040
	8	8.3	207	115	11.59	0.13	0.1176	0.0025
	9	2.0	46	61	4.88	0.05	0.1082	0.0022
	10	2.1	64	67	10.21	0.17	0.3254	0.0078
	11	1.9	59	55	10.31	0.17	0.2873	0.0066
	12	2.0	24	57	8.20	0.09	0.1448	0.0031
	13	2.0	53	66	7.58	0.11	0.1635	0.0036
	14	6.5	149	154	10.86	0.13	0.2399	0.0062
	15	2.8	83	56	8.58	0.23	0.1465	0.0033
	16	12.7	295	339	9.26	0.11	0.1388	0.0030
	17	8.5	563	289	11.06	0.13	0.1450	0.0031
	18	2.1	46	48	11.56	0.17	0.1863	0.0041
	19	2.4	82	49	9.41	0.11	0.2076	0.0045
	20	13.9	401	477	11.88	0.17	0.1866	0.0041
	21	6.5	159	110	10.44	0.17	0.3000	0.0068
	22	9.6	132	180	12.36	0.20	0.1904	0.0045
	23	12.8	410	388	8.98	0.19	0.3667	0.0089
	24	6.7	153	163	12.38	0.20	0.2179	0.0049
	25	17.2	415	457	12.32	0.18	0.2102	0.0084
	26	20.6	610	326	14.27	0.24	0.1138	0.0054
	27	11.5	246	268	13.99	0.14	0.1335	0.0031
	28	13.5	166	409	14.04	0.17	0.1235	0.0027
	29	14.7	162	382	13.42	0.22	0.1262	0.0028
	30	8.4	124	178	14.18	0.22	0.1072	0.0023
	31	12.6	251	315	13.74	0.21	0.0956	0.0020
	32	18.0	213	401	13.19	0.17	0.1109	0.0024
	33	18.4	202	489	14.27	0.17	0.1102	0.0024
	34	12.5	149	314	12.64	0.21	0.1107	0.0024
	35	24.7	613	960	12.80	0.18	0.1110	0.0024
G9707A1								
	1	2.8	73	46	14.07	0.22	0.1657	0.0039
	2	10.3	28	35	5.94	0.12	0.6257	0.0134
	3	11.2	129	38	11.32	0.21	0.3117	0.0070
	4	3.0	96	31	13.85	0.20	0.1797	0.0046

	5	2.2	41	40	12.78	0.21	0.2224	0.0050
	6	13.6	57	35	7.43	0.10	0.5370	0.0126
	7	2.7	100	40	13.89	0.14	0.1609	0.0039
	8	2.6	41	35	11.80	0.20	0.2808	0.0084
	9	19.6	3	33	0.47	0.05	0.9448	0.0196
	10	11.8	5	33	1.23	0.07	0.9059	0.0188
	11	15.4	69	34	7.75	0.09	0.5307	0.0117
	12	3.2	6	36	4.37	0.20	0.7259	0.0194
	13	2.2	12	25	8.72	0.25	0.4657	0.0115
	14	2.8	83	61	13.65	0.36	0.1654	0.0045
G9707N1								
	1	4.0	55	51	8.51	0.10	0.4954	0.0101
	2	4.0	54	48	8.22	0.09	0.5051	0.0103
	3	5.2	61	49	7.73	0.11	0.5319	0.0109
	4	5.7	61	49	7.39	0.08	0.5513	0.0112
	5	6.6	74	51	7.63	0.10	0.5362	0.0109
	6	6.5	76	51	7.82	0.11	0.5309	0.0108
	7	4.5	59	52	8.30	0.12	0.4995	0.0102
	8	4.2	52	50	8.08	0.14	0.5196	0.0109
	9	3.6	52	51	8.90	0.14	0.4733	0.0096
	10	6.0	68	49	7.60	0.12	0.5445	0.0110
	11	5.4	55	47	7.09	0.12	0.5674	0.0115
	12	5.5	57	48	7.13	0.11	0.5650	0.0115
	13	5.6	58	48	7.13	0.11	0.5636	0.0114
	14	4.9	53	48	7.28	0.10	0.5500	0.0112
	15	4.8	52	48	7.27	0.12	0.5482	0.0112
	16	5.6	61	49	7.38	0.11	0.5403	0.0110
	17	3.4	50	46	8.43	0.09	0.4825	0.0098
	18	3.1	48	47	8.54	0.09	0.4752	0.0097
	19	3.2	49	47	8.51	0.09	0.4760	0.0097
	20	4.7	56	49	7.70	0.07	0.5194	0.0106
	21	5.4	71	51	8.15	0.08	0.4936	0.0100
	22	4.3	49	49	7.46	0.08	0.5343	0.0109
	23	4.4	51	48	7.48	0.08	0.5367	0.0109
	24	4.5	51	49	7.41	0.07	0.5417	0.0110
	25	4.4	52	49	7.63	0.08	0.5266	0.0107
	26	4.5	50	49	7.37	0.07	0.5434	0.0110
	27	5.4	67	51	7.96	0.10	0.5109	0.0104
	28	4.8	55	49	7.46	0.09	0.5430	0.0111
	29	3.4	53	49	8.76	0.10	0.4699	0.0096
	30	5.3	67	51	8.06	0.09	0.5106	0.0104
	31	4.7	53	49	7.44	0.10	0.5450	0.0111
	32	5.2	53	48	6.94	0.13	0.5816	0.0118
	33	5.3	53	48	6.92	0.10	0.5806	0.0118
	34	5.3	56	48	7.16	0.14	0.5658	0.0115
	35	5.3	54	47	6.92	0.14	0.5810	0.0119
	36	5.3	55	47	7.04	0.11	0.5742	0.0117
	37	6.0	69	53	7.75	0.14	0.5284	0.0107
	38	5.0	61	51	7.88	0.13	0.5238	0.0106
	39	5.5	66	52	7.96	0.13	0.5251	0.0107
	40	4.9	60	49	7.85	0.15	0.5188	0.0106
G9707R2								

	1	2.7	266	65	14.95	0.27	0.1395	0.0029
	2	3.5	262	58	14.11	0.28	0.1730	0.0036
	3	6.0	254	57	12.47	0.24	0.2524	0.0053
	4	6.7	249	56	12.08	0.22	0.2768	0.0056
	5	8.0	141	50	8.90	0.17	0.4423	0.0090
	6	2.6	307	73	15.04	0.30	0.1192	0.0025
	7	1.9	198	60	14.73	0.27	0.1453	0.0031
	8	1.7	88	68	13.44	0.27	0.2090	0.0045
	9	10.4	120	51	7.31	0.25	0.5229	0.0144
	10	3.1	202	61	13.84	0.23	0.1846	0.0038
	11	2.6	405	74	15.66	0.15	0.1073	0.0022
	12	3.8	214	56	13.22	0.28	0.2166	0.0045
	13	2.7	195	80	14.27	0.26	0.1584	0.0034
	14	1.9	75	80	13.06	0.28	0.2358	0.0049
	15	2.3	57	70	11.14	0.25	0.3296	0.0074
	16	2.9	108	82	13.00	0.30	0.2363	0.0052
	17	2.6	128	99	13.90	0.24	0.1863	0.0040
	18	2.4	128	84	14.00	0.26	0.1875	0.0040
	19	2.5	178	89	14.58	0.31	0.1540	0.0032
	20	2.1	22	68	7.40	0.21	0.5244	0.0114
	21	3.5	20	55	4.96	0.17	0.6560	0.0150
	22	1.7	20	78	8.11	0.19	0.4948	0.0111
	23	2.0	35	79	10.13	0.21	0.3879	0.0087
	24	2.2	39	69	9.83	0.23	0.4010	0.0089
	25	2.5	249	71	14.80	0.30	0.1406	0.0030
	26	3.0	211	62	14.01	0.33	0.1805	0.0038
	27	4.4	228	55	13.14	0.29	0.2217	0.0045
	28	7.0	173	50	10.42	0.24	0.3578	0.0075
	29	2.7	242	60	14.46	0.31	0.1530	0.0032
	30	2.2	32	56	9.19	0.24	0.4350	0.0092
	31	1.9	32	57	9.92	0.26	0.3998	0.0092
	32	1.8	29	54	9.36	0.22	0.4270	0.0092
G9708Q4								
	1	4.1	61	42	7.57	0.11	0.4772	0.0103
	2	4.1	58	42	7.42	0.13	0.4774	0.0103
	3	4.2	56	42	7.95	0.11	0.4546	0.0096
	4	4.1	56	42	7.58	0.14	0.4751	0.0103
	5	3.9	52	42	7.43	0.15	0.4735	0.0101
	6	4.3	55	43	7.51	0.15	0.4844	0.0108
	7	3.3	69	43	7.29	0.14	0.4948	0.0106
	8	2.0	93	45	9.02	0.16	0.4162	0.0092
	9	4.0	70	42	6.94	0.13	0.5054	0.0111
	10	3.8	72	43	7.34	0.11	0.4834	0.0105
	11	3.8	58	44	8.76	0.12	0.4126	0.0088
	12	3.4	60	44	8.39	0.13	0.4305	0.0095
	13	4.5	69	44	9.12	0.15	0.3976	0.0086
	14	4.5	71	44	8.76	0.14	0.4209	0.0093
	15	4.4	68	43	9.54	0.15	0.3821	0.0088
	16	4.5	65	44	8.83	0.12	0.4131	0.0091
	17	4.5	66	45	9.27	0.12	0.4085	0.0089
	18	4.5	63	45	12.69	0.18	0.2302	0.0053
	19	4.5	72	45	8.40	0.13	0.4458	0.0097

	20	5.0	82	44	8.53	0.14	0.4336	0.0093
G97097K1								
	1	4.8	1010	159	15.68	0.32	0.0714	0.0015
	2	4.0	1431	161	16.16	0.36	0.0647	0.0013
	3	2.8	212	54	13.78	0.27	0.1714	0.0039
	4	2.2	318	59	15.09	0.33	0.1158	0.0029
	5	2.3	235	54	14.40	0.26	0.1448	0.0030
	6	2.3	397	74	15.53	0.31	0.0945	0.0019
	7	2.6	356	73	15.09	0.28	0.1075	0.0024
	8	3.0	576	80	15.42	0.31	0.0879	0.0021
	9	2.0	300	64	15.12	0.28	0.1094	0.0023
	10	2.7	277	60	14.49	0.31	0.1381	0.0028
	11	2.5	253	58	14.26	0.31	0.1396	0.0029
	12	1.7	265	67	15.12	0.31	0.1025	0.0021
	13	2.5	198	56	13.84	0.31	0.1685	0.0036
	14	2.0	400	80	15.56	0.35	0.0874	0.0018
	15	2.5	260	62	14.54	0.28	0.1301	0.0027
	16	2.4	232	60	13.94	0.30	0.1400	0.0031
	17	2.2	248	60	14.47	0.29	0.1316	0.0027
	18	2.0	272	65	15.26	0.35	0.1144	0.0024
	19	1.9	344	84	15.65	0.37	0.0879	0.0018
	20	2.7	148	53	12.75	0.31	0.2150	0.0045
	21	2.5	284	66	15.08	0.36	0.1220	0.0025
	22	2.7	427	83	15.33	0.33	0.0944	0.0019
	23	3.2	456	96	15.29	0.34	0.0922	0.0019
	24	3.0	408	102	15.61	0.38	0.0931	0.0019
	25	6.4	445	203	15.22	0.46	0.0916	0.0019
	26	5.8	268	179	15.05	0.44	0.1172	0.0024
	27	5.1	714	192	15.54	0.45	0.0740	0.0015
	28	3.8	277	120	14.94	0.37	0.1167	0.0024
	29	5.1	201	139	14.14	0.41	0.1509	0.0035
	30	5.4	442	141	15.23	0.43	0.1002	0.0021
	31	3.3	289	116	15.29	0.62	0.1064	0.0022
	32	2.3	544	78	15.79	0.40	0.0838	0.0017
	33	2.3	510	72	15.54	0.41	0.0873	0.0018
J5810D								
	1	3.6	12	58	4.75	0.22	0.3857	0.0114
	2	2.8	16	56	6.25	0.23	0.3025	0.0073
	3	3.6	33	49	11.04	0.34	0.3500	0.0082
	4	5.2	12	48	5.17	0.24	0.5673	0.0123
	5	19.3	8	46	1.28	0.05	0.8440	0.0173
	6	44.1	20	45	1.33	0.05	0.8471	0.0173
	7	19.8	7	46	1.08	0.05	0.8677	0.0179
	8	12.3	7	46	1.70	0.07	0.8206	0.0171
	9	9.3	20	44	4.88	0.11	0.6348	0.0136
	10	9.5	22	45	5.09	0.19	0.6170	0.0159
	11	5.2	47	49	4.15	0.10	0.3993	0.0083
	12	11.6	10	44	2.24	0.08	0.7708	0.0165
	13	3.6	37	47	6.07	0.12	0.5068	0.0106
	14	28.2	26	46	2.54	0.06	0.7742	0.0159
	15	21.7	118	49	4.01	0.06	0.6435	0.0130
	16	23.4	25	46	2.88	0.07	0.7443	0.0156

	17	4.6	7	48	1.30	0.03	0.7137	0.0148
	18	116.9	141	45	3.11	0.06	0.7359	0.0149
	19	12.0	40	44	4.55	0.11	0.4186	0.0089
	20	13.1	18	44	2.88	0.07	0.6106	0.0127
	21	10.4	7	45	1.75	0.07	0.7664	0.0170
	22	7.9	12	43	2.92	0.08	0.5617	0.0121
	23	2.1	24	40	5.33	0.12	0.2030	0.0077
	24	14.9	4	46	1.35	0.18	0.7560	0.0199
	25	16.5	4	46	1.49	0.33	0.7470	0.0174
	26	4.6	479	46	15.24	0.28	0.0946	0.0020
	27	3.6	48	48	5.52	0.13	0.1710	0.0041
	28	36.9	24	44	1.92	0.05	0.8100	0.0165
	29	7.1	32	45	4.67	0.11	0.3366	0.0079
	30	7.2	94	44	11.10	0.28	0.2805	0.0073
	31	34.4	83	45	5.31	0.11	0.6263	0.0127
	32	160.5	80	45	1.37	0.04	0.7759	0.0156
	33	34.1	90	21	3.35	0.06	0.7201	0.0145
	34	37.2	153	24	4.38	0.05	0.6697	0.0135
	35	35.2	427	27	8.11	0.12	0.4791	0.0097
	36	36.2	546	32	8.53	0.10	0.4439	0.0089
	37	29.3	55	49	1.65	0.05	0.8003	0.0163
	38	30.5	71	50	2.00	0.06	0.8002	0.0163
	39	22.4	68	50	2.61	0.05	0.7621	0.0153
	40	25.0	66	49	2.32	0.03	0.7952	0.0160
	41	4.3	7	47	1.41	0.04	0.8006	0.0171
	42	1.2	39	46	10.59	0.24	0.3032	0.0068
	43	3.7	5	47	1.40	0.05	0.8085	0.0171
K1725B3								
	1	4.9	31	51	4.59	0.13	0.6151	0.0129
	2	2.3	6	51	2.07	0.18	0.7396	0.0176
	3	1.6	293	69	15.80	0.47	0.1022	0.0036
	4	4.1	62	55	7.86	0.24	0.4571	0.0099
	5	2.6	59	51	9.39	0.39	0.3796	0.0092
	6	4.4	79	51	8.60	0.31	0.4232	0.0124
	7	3.4	139	56	11.89	0.31	0.2664	0.0060
	8	2.1	202	60	14.45	0.31	0.1553	0.0064
	9	2.8	17	54	4.46	0.24	0.6236	0.0153
	10	4.5	288	60	13.26	0.32	0.1927	0.0078
	11	4.4	109	53	9.85	0.24	0.3633	0.0096
	12	2.4	73	54	10.62	0.34	0.3159	0.0076
	13	5.2	39	53	5.09	0.14	0.5837	0.0124
	14	3.4	6	54	1.50	0.18	0.7607	0.0171
	15	3.1	11	52	2.89	0.17	0.7048	0.0157
	16	4.8	31	55	4.59	0.23	0.5989	0.0147
	17	3.0	22	53	5.01	0.19	0.5823	0.0133
	18	4.0	31	56	5.49	0.18	0.5715	0.0132
	19	1.3	241	63	15.22	0.32	0.1035	0.0024
	20	2.7	28	52	6.41	0.24	0.5443	0.0126
	21	7.1	121	52	8.46	0.19	0.4311	0.0092
	22	2.5	15	51	4.29	0.24	0.6240	0.0154
	23	1.8	272	54	14.71	0.28	0.1279	0.0034
	24	4.3	21	52	3.79	0.13	0.6584	0.0143

	25	2.1	7	50	2.75	0.17	0.7030	0.0179
	26	2.2	474	63	15.53	0.43	0.0986	0.0025
	27	9.3	183	53	9.07	0.23	0.4092	0.0096
	28	7.5	348	56	12.59	0.32	0.2540	0.0056
	29	7.9	22	53	2.37	0.10	0.7302	0.0156
	30	7.9	45	53	4.19	0.13	0.6421	0.0141
	31	7.3	70	51	6.03	0.16	0.5458	0.0119
K1725C								
	1	2.2	569	492	15.01	0.13	0.0810	0.0017
	2	2.4	635	479	15.13	0.21	0.0786	0.0017
	3	2.2	683	584	15.04	0.18	0.0759	0.0016
	4	2.0	1053	814	15.33	0.17	0.0707	0.0015
	5	2.2	1165	856	15.39	0.15	0.0705	0.0015
	6	2.8	1249	869	15.39	0.19	0.0708	0.0015
	7	15.1	143	51	10.02	0.27	0.3280	0.0110
	8	20.6	22	52	2.64	0.07	0.6929	0.0143
	9	4.6	324	253	14.84	0.35	0.1014	0.0021
	10	16.7	61	54	6.50	0.14	0.5121	0.0108
	11	19.7	19	52	2.43	0.07	0.6948	0.0145
	12	21.6	20	54	2.28	0.06	0.7024	0.0144
	13	20.5	21	54	2.54	0.07	0.6907	0.0143
	14	11.6	130	58	10.17	0.43	0.3020	0.0134
	15	17.2	24	53	3.23	0.08	0.6595	0.0136
	16	12.8	9	54	1.81	0.08	0.7219	0.0152
	17	14.3	14	55	2.34	0.07	0.6961	0.0146
	18	19.7	17	54	2.19	0.07	0.7046	0.0147
	19	4.3	9	46	4.31	0.22	0.6026	0.0138
	20	6.5	359	290	15.15	0.32	0.1007	0.0023
	21	12.9	12	53	2.16	0.10	0.7053	0.0150
	22	21.3	19	53	2.26	0.05	0.7050	0.0145
	23	21.9	33	53	3.52	0.10	0.6536	0.0136
	24	5.3	250	199	14.31	0.35	0.1229	0.0042
	25	6.0	9	50	4.65	0.65	0.5850	0.0303
	26	19.5	24	52	2.94	0.08	0.6789	0.0141
	27	8.8	235	107	13.30	0.41	0.1802	0.0076
	28	7.3	82	56	10.94	0.43	0.3020	0.0143
	29	19.2	62	51	5.96	0.14	0.5252	0.0118
	30	8.0	119	69	11.49	0.34	0.2434	0.0103
	31	20.3	38	49	4.17	0.12	0.6285	0.0130
	32	6.4	152	98	12.92	0.32	0.1848	0.0083
K1727C1								
	1	1.2	17	47	7.67	0.22	0.4950	0.0112
	2	1.3	18	50	7.48	0.25	0.4878	0.0112
	3	1.1	20	49	8.38	0.29	0.4414	0.0111
	4	1.3	24	51	8.68	0.23	0.4192	0.0097
	5	1.5	24	49	8.05	0.18	0.4571	0.0097
	6	1.1	27	44	9.93	0.24	0.3678	0.0081
	7	1.2	15	44	7.11	0.23	0.5016	0.0110
	8	1.4	17	49	7.14	0.20	0.5031	0.0109
	9	1.4	24	48	8.55	0.21	0.4365	0.0096
	10	1.3	22	52	8.40	0.25	0.4387	0.0097
	11	1.1	22	46	9.02	0.24	0.4100	0.0094

	12	1.0	20	44	8.75	0.20	0.4136	0.0093
	13	1.1	20	47	8.42	0.26	0.4385	0.0099
	14	1.0	19	53	8.83	0.21	0.4188	0.0098
	15	1.0	23	53	9.53	0.24	0.3843	0.0087
	16	1.1	28	55	9.84	0.26	0.3635	0.0081
	17	1.4	25	50	8.57	0.23	0.4313	0.0096
	18	1.5	27	45	8.33	0.25	0.4245	0.0105
	19	1.4	32	52	9.35	0.26	0.3802	0.0092
	20	1.3	29	54	9.53	0.23	0.3847	0.0088
	21	2.0	35	51	8.36	0.19	0.4324	0.0093
	22	1.3	20	52	7.69	0.22	0.4676	0.0103
	23	1.4	17	49	6.89	0.22	0.5147	0.0119
	24	1.5	11	48	4.98	0.23	0.6131	0.0153
	25	1.2	13	41	6.25	0.27	0.5332	0.0120
	26	1.3	15	45	6.74	0.21	0.5181	0.0117
	27	1.2	15	43	7.03	0.21	0.4828	0.0110
	28	1.2	16	45	7.09	0.23	0.4935	0.0109
	29	1.1	16	43	7.17	0.24	0.4895	0.0109
	30	1.1	19	41	8.16	0.23	0.4480	0.0103
	31	1.1	18	41	7.89	0.23	0.4626	0.0105
	32	1.2	8	47	4.50	0.22	0.6296	0.0145
	33	1.4	17	47	6.80	0.20	0.5048	0.0111
	34	1.6	10	49	4.44	0.20	0.6254	0.0151
	35	1.7	18	47	6.41	0.19	0.5196	0.0113
	36	1.3	16	44	7.02	0.21	0.4944	0.0108
K1728B								
	1	5.2	504	63	15.31	0.14	0.0804	0.0017
	2	5.2	504	64	15.25	0.14	0.0803	0.0017
	3	5.1	492	64	15.26	0.14	0.0805	0.0017
	4	5.0	486	61	15.22	0.14	0.0806	0.0017
	5	4.3	390	54	15.20	0.15	0.0869	0.0018
	6	4.5	402	55	15.16	0.16	0.0872	0.0018
	7	4.5	407	54	15.20	0.14	0.0860	0.0018
	8	4.6	408	54	15.15	0.14	0.0861	0.0018
	9	4.5	406	53	15.11	0.13	0.0866	0.0018
	10	4.5	408	53	15.12	0.13	0.0869	0.0018
	11	4.5	405	51	15.16	0.16	0.0863	0.0018
	12	4.5	407	52	15.08	0.14	0.0863	0.0018
	13	4.6	414	50	14.98	0.14	0.0863	0.0018
	14	4.6	418	51	15.05	0.13	0.0861	0.0018
	15	4.6	412	52	15.01	0.14	0.0853	0.0018
	16	5.8	460	59	14.95	0.15	0.0876	0.0018
	17	5.2	390	55	14.91	0.14	0.0910	0.0019
	18	4.8	261	47	14.51	0.16	0.1109	0.0023
	19	6.2	555	65	15.19	0.17	0.0802	0.0016
	20	7.0	536	64	14.97	0.17	0.0850	0.0018
	21	6.0	505	60	15.11	0.16	0.0834	0.0017
	22	5.7	462	57	15.09	0.17	0.0863	0.0018
	23	6.1	455	57	14.99	0.17	0.0901	0.0019
	24	5.8	492	59	15.11	0.16	0.0840	0.0017
	25	6.5	475	61	14.95	0.15	0.0871	0.0018
	26	5.5	389	51	14.92	0.14	0.0944	0.0020

	27	5.2	397	51	14.97	0.14	0.0909	0.0019
	28	5.8	428	54	14.97	0.17	0.0910	0.0019
	29	5.9	453	54	14.98	0.16	0.0888	0.0018
K1729A1								
	1	8.2	1082	76	15.20	0.19	0.0732	0.0015
	2	8.6	1138	80	15.36	0.15	0.0723	0.0015
	3	9.3	1119	72	15.27	0.15	0.0754	0.0015
	4	8.4	1129	77	15.21	0.16	0.0728	0.0015
	5	8.5	1146	76	15.33	0.19	0.0720	0.0015
	6	8.4	329	58	13.82	0.17	0.1301	0.0027
	7	8.2	829	69	15.08	0.17	0.0813	0.0017
	8	8.2	914	70	15.06	0.17	0.0785	0.0016
	9	8.1	924	70	15.24	0.17	0.0784	0.0016
	10	8.5	1121	85	15.38	0.15	0.0723	0.0015
	11	8.5	1138	83	15.34	0.14	0.0726	0.0015
	12	8.5	1155	86	15.42	0.15	0.0719	0.0015
	13	8.9	1162	83	15.30	0.16	0.0725	0.0015
	14	8.9	1108	86	15.18	0.17	0.0733	0.0015
	15	8.2	666	59	14.69	0.18	0.0941	0.0019
	16	7.4	667	58	14.72	0.14	0.0911	0.0019
	17	7.8	669	63	14.89	0.17	0.0905	0.0019
	18	8.7	1031	83	15.15	0.15	0.0753	0.0015
	19	8.3	1179	83	15.19	0.18	0.0713	0.0014
	20	8.8	1002	101	15.54	0.14	0.0721	0.0015
	21	7.6	804	66	15.07	0.14	0.0818	0.0017
	22	6.9	610	57	14.71	0.16	0.0911	0.0019
	23	6.7	379	54	14.33	0.17	0.1136	0.0023
	24	6.7	347	55	14.11	0.16	0.1163	0.0024
	25	5.6	405	52	14.63	0.15	0.1030	0.0021
	26	7.7	678	60	14.75	0.17	0.0890	0.0018
	27	7.6	655	60	14.68	0.17	0.0906	0.0019
	28	8.5	1094	79	15.14	0.17	0.0734	0.0015
	29	8.6	411	52	13.93	0.13	0.1244	0.0026
	30	8.0	653	62	14.84	0.15	0.0908	0.0019
	31	7.8	648	61	14.78	0.17	0.0918	0.0019
	32	7.7	639	60	14.81	0.15	0.0913	0.0019
	33	7.7	618	62	14.80	0.18	0.0917	0.0019
K1729F5								
	1	9.9	232	48	12.65	0.09	0.1886	0.0039
	2	8.9	208	45	12.61	0.09	0.1947	0.0040
	3	8.7	212	44	12.63	0.10	0.1949	0.0041
	4	8.3	199	44	12.66	0.09	0.1949	0.0040
	5	8.6	137	44	11.55	0.16	0.2542	0.0087
	6	10.8	276	54	13.14	0.09	0.1706	0.0035
	7	8.4	224	46	12.84	0.08	0.1820	0.0037
	8	10.3	183	48	12.00	0.17	0.2361	0.0086
	9	9.6	19	46	4.02	0.09	0.6303	0.0134
	10	9.1	20	45	4.43	0.12	0.6149	0.0135
	11	10.8	353	63	13.65	0.13	0.1368	0.0033
	12	8.1	187	47	12.52	0.10	0.1989	0.0041
	13	8.9	411	52	13.78	0.12	0.1267	0.0027
	14	11.5	530	64	14.11	0.12	0.1156	0.0024

	15	10.5	544	72	14.23	0.12	0.1041	0.0021
	16	8.1	321	53	13.68	0.14	0.1398	0.0030
	17	8.1	180	50	12.51	0.11	0.2036	0.0042
	18	7.6	165	50	12.43	0.10	0.2035	0.0042
K1730A1								
	1	45.3	12	15	0.30	0.02	0.9141	0.0186
	2	24.6	12	16	0.48	0.03	0.8870	0.0182
	3	33.7	18	16	0.56	0.02	0.8890	0.0180
	4	16.3	12	17	0.74	0.04	0.8610	0.0177
	5	14.1	57	21	3.52	0.07	0.6993	0.0144
	6	1.5	18	37	8.05	0.43	0.4101	0.0117
	7	1.0	11	31	6.37	0.45	0.5273	0.0140
	8	1.1	13	34	6.86	0.43	0.4821	0.0137
	9	2.2	13	24	4.67	0.26	0.6335	0.0152
	10	1.0	11	25	5.85	0.41	0.5620	0.0157
	11	9.7	72	128	7.68	0.14	0.1828	0.0043
	12	8.3	51	50	7.52	0.19	0.3156	0.0072
	13	3.3	29	82	7.65	0.26	0.2850	0.0071
	14	3.0	29	46	8.91	0.29	0.3214	0.0080
	15	8.6	77	120	8.50	0.13	0.1806	0.0043
	16	9.2	85	151	8.46	0.14	0.1645	0.0038
	17	16.2	91	268	4.99	0.09	0.1441	0.0037
	18	11.3	91	188	7.21	0.09	0.1588	0.0036
	19	21.8	28	17	1.28	0.04	0.8556	0.0175
	20	16.2	33	18	1.96	0.05	0.8045	0.0166
	21	15.9	20	17	1.20	0.05	0.8545	0.0175
	22	14.1	30	18	2.07	0.06	0.7854	0.0161
	23	15.8	48	20	3.01	0.05	0.7284	0.0153
	24	45.1	14	15	0.32	0.02	0.9192	0.0186
	25	14.1	28	18	1.91	0.05	0.8029	0.0167
	26	13.8	44	19	3.02	0.05	0.7433	0.0156
	27	27.1	19	16	0.69	0.03	0.8962	0.0183
K1730C1								
	1	8.0	235	360	11.06	0.15	0.1236	0.0027
	2	7.1	227	210	12.04	0.13	0.1240	0.0028
	3	7.3	207	204	14.05	0.14	0.1481	0.0035
	4	6.8	192	120	13.39	0.25	0.1928	0.0047
	5	10.7	268	234	9.85	0.10	0.1379	0.0030
	6	5.0	93	146	12.05	0.16	0.2368	0.0057
	7	7.0	96	110	9.43	0.15	0.2801	0.0063
	8	5.0	97	133	12.39	0.17	0.2175	0.0052
	9	4.9	95	108	12.48	0.19	0.2339	0.0056
	10	4.2	90	200	13.07	0.21	0.2121	0.0053
	11	1.5	58	40	11.53	0.21	0.2882	0.0071
	12	1.6	53	61	10.72	0.20	0.3221	0.0079
	13	1.4	69	34	12.25	0.18	0.2550	0.0061
	14	1.3	119	26	13.50	0.18	0.1675	0.0040
	15	1.4	258	56	15.16	0.17	0.1013	0.0025
	16	1.3	208	75	15.03	0.20	0.1058	0.0026
	17	2.1	291	63	14.66	0.15	0.1236	0.0027
	18	1.3	116	57	13.42	0.20	0.1755	0.0040
	19	1.5	306	1	15.09	0.18	0.0982	0.0023

	20	1.3	278	21	15.01	0.18	0.0979	0.0022
	21	5.0	81	43	8.18	0.11	0.4735	0.0101
	22	2.0	77	54	7.09	0.11	0.2041	0.0047
	23	3.4	99	95	12.99	0.19	0.1895	0.0046
	24	5.1	96	10	12.59	0.17	0.1957	0.0045
	25	5.5	130	190	13.85	0.19	0.1564	0.0036
	26	2.8	93	50	12.14	0.19	0.2042	0.0045
	27	3.3	101	70	11.90	0.16	0.2144	0.0050
	28	2.2	74	34	12.64	0.26	0.2327	0.0055
	29	3.4	109	30	12.06	0.20	0.1989	0.0046
	30	2.4	86	120	12.05	0.19	0.2770	0.0064
	31	6.4	123	230	13.69	0.17	0.1638	0.0040
	32	3.5	79	33	12.44	0.20	0.2423	0.0059
	33	1.3	35	70	10.28	0.25	0.3601	0.0090
	34	1.5	37	1	10.99	0.29	0.3310	0.0102
	35	2.7	28	64	6.35	0.23	0.5661	0.0133
K1730G1								
	1	3.4	490	92	14.65	0.20	0.0872	0.0019
	2	2.6	378	128	14.63	0.20	0.0949	0.0021
	3	2.8	345	107	14.45	0.21	0.0984	0.0022
	4	1.7	306	74	14.49	0.18	0.1062	0.0023
	5	1.4	107	64	12.95	0.23	0.1890	0.0044
	6	1.7	282	55	14.60	0.21	0.1084	0.0025
	7	1.4	117	18	13.04	0.19	0.1784	0.0041
	8	3.1	522	128	14.95	0.25	0.0843	0.0018
	9	3.9	852	150	15.08	0.20	0.0736	0.0016
	10	3.9	1070	60	15.24	0.19	0.0701	0.0015
	11	1.4	103	49	12.63	0.22	0.1914	0.0054
	12	4.1	701	168	14.81	0.24	0.0771	0.0017
	13	4.8	1080	179	14.79	0.24	0.0718	0.0015
	14	2.8	666	112	14.77	0.26	0.0786	0.0018
	15	2.9	299	84	13.70	0.19	0.1163	0.0027
	16	2.9	488	99	14.71	0.21	0.0864	0.0019
	17	2.8	437	138	14.55	0.18	0.0914	0.0020
	18	2.4	322	102	13.95	0.29	0.1040	0.0025
	19	3.8	586	115	14.79	0.21	0.0883	0.0019
	20	1.6	18	50	6.83	0.28	0.5476	0.0135
	21	2.1	16	79	5.87	0.29	0.5919	0.0140
	22	1.9	11	55	4.67	0.31	0.6658	0.0165
	23	1.8	323	68	14.27	0.22	0.1048	0.0024
	24	1.8	12	66	5.00	0.25	0.6327	0.0155
	25	2.1	15	57	5.80	0.31	0.6026	0.0146
	26	3.3	582	80	13.79	0.30	0.0926	0.0024
	27	2.6	384	68	11.36	0.17	0.0856	0.0033
	28	2.7	469	122	14.16	0.22	0.0882	0.0019
	29	2.4	550	95	14.49	0.21	0.0834	0.0018
	30	1.9	211	79	14.04	0.24	0.1339	0.0035
	31	1.8	34	53	8.83	0.23	0.4237	0.0100
	32	3.6	288	60	12.69	0.24	0.1500	0.0034
	33	1.6	44	33	10.18	0.21	0.3498	0.0087
	34	1.6	49	49	10.38	0.28	0.3268	0.0087
K1730H1								

	1	1.4	19	57	7.50	0.29	0.4907	0.0121
	2	1.4	19	57	7.40	0.27	0.4901	0.0122
	3	1.4	19	45	7.24	0.30	0.4924	0.0119
	4	1.4	19	59	7.32	0.29	0.4851	0.0121
	5	1.4	20	77	7.58	0.29	0.4749	0.0117
	6	1.3	20	36	7.58	0.26	0.4798	0.0123
	7	1.2	22	69	8.10	0.28	0.4462	0.0130
	8	1.2	18	51	7.47	0.30	0.4907	0.0124
	9	1.3	19	40	7.42	0.30	0.4938	0.0122
	10	1.3	18	48	7.23	0.29	0.5060	0.0128
	11	1.2	21	44	8.26	0.28	0.4623	0.0120
	12	1.3	57	58	11.88	0.24	0.2730	0.0071
	13	2.4	73	44	10.55	0.22	0.3371	0.0090
	14	1.6	74	59	11.92	0.20	0.2672	0.0066
	15	2.8	506	82	15.32	0.16	0.0981	0.0023
	16	1.3	22	55	8.02	0.26	0.4410	0.0129
	17	2.5	460	107	15.48	0.18	0.0873	0.0019
	18	2.7	674	118	15.48	0.18	0.0760	0.0016
	19	1.3	56	60	11.22	0.58	0.2900	0.0228
	20	1.3	29	54	9.10	0.30	0.4098	0.0103
	21	1.3	25	56	8.74	0.29	0.4306	0.0110
	22	1.3	27	74	8.83	0.25	0.4127	0.0104
	23	1.4	29	42	9.09	0.25	0.4081	0.0100
K1801F1								
	1	13.5	98	52	9.11	0.07	0.3710	0.0076
	2	12.6	103	51	9.42	0.13	0.3535	0.0079
	3	11.4	97	51	9.64	0.08	0.3412	0.0071
	4	11.3	98	52	9.74	0.08	0.3400	0.0070
	5	11.3	98	51	9.74	0.07	0.3406	0.0071
	6	11.2	98	51	9.83	0.08	0.3439	0.0071
	7	11.2	98	52	9.72	0.08	0.3415	0.0070
	8	11.2	98	51	9.76	0.08	0.3429	0.0071
	9	11.3	98	52	9.73	0.07	0.3410	0.0070
	10	11.4	98	52	9.73	0.08	0.3406	0.0070
	11	11.4	98	52	9.76	0.07	0.3455	0.0071
	12	11.4	97	52	9.65	0.07	0.3459	0.0072
	13	11.7	99	53	9.62	0.07	0.3449	0.0071
	14	11.4	98	53	9.63	0.08	0.3448	0.0071
	15	11.5	98	53	9.61	0.07	0.3445	0.0071
	16	11.5	97	53	9.63	0.09	0.3481	0.0072
	17	11.4	95	53	9.54	0.07	0.3475	0.0072
	18	11.5	96	53	9.51	0.08	0.3471	0.0072
	19	11.6	96	52	9.50	0.07	0.3484	0.0072
	20	11.5	97	54	9.59	0.08	0.3451	0.0072
	21	7.2	105	53	11.45	0.11	0.2521	0.0054
	22	7.7	100	53	11.04	0.08	0.2698	0.0056
	23	11.1	105	53	9.86	0.08	0.3255	0.0068
	24	7.8	109	52	11.35	0.10	0.2583	0.0055
	25	9.2	107	54	10.64	0.08	0.2868	0.0059
	26	10.2	106	55	10.37	0.09	0.3058	0.0063
	27	9.4	106	54	10.57	0.10	0.2911	0.0061
	28	7.4	110	55	11.63	0.11	0.2443	0.0051

	29	7.8	110	54	11.39	0.10	0.2534	0.0053
	30	9.9	105	54	10.42	0.09	0.2996	0.0063
	31	10.5	102	55	10.07	0.09	0.3124	0.0064
	32	10.2	102	54	10.19	0.09	0.3091	0.0064
	33	9.3	104	53	10.63	0.09	0.2885	0.0059
	34	8.2	113	54	11.25	0.16	0.2590	0.0059
	35	8.2	105	53	11.12	0.09	0.2650	0.0055
K1802H								
	1	1.7	161	57	13.97	0.18	0.1566	0.0037
	2	1.8	156	48	13.79	0.19	0.1578	0.0037
	3	2.2	183	76	14.06	0.19	0.1613	0.0040
	4	2.1	197	56	13.85	0.19	0.1626	0.0037
	5	1.9	151	68	13.79	0.25	0.1671	0.0040
	6	1.9	175	64	13.59	0.18	0.1697	0.0037
	7	1.9	152	63	13.60	0.18	0.1770	0.0040
	8	1.9	132	71	13.51	0.18	0.1783	0.0047
	9	1.8	151	66	13.62	0.20	0.1809	0.0040
	10	1.4	79	59	13.11	0.34	0.2103	0.0053
	11	2.5	134	58	13.00	0.17	0.2197	0.0067
	12	1.9	94	65	13.04	0.22	0.2227	0.0054
	13	1.9	92	56	12.69	0.23	0.2244	0.0058
	14	1.9	70	67	11.95	0.23	0.2750	0.0069
	15	3.2	125	47	11.66	0.19	0.2856	0.0082
	16	1.9	66	48	11.89	0.21	0.2903	0.0064
	17	2.0	60	58	11.63	0.20	0.3017	0.0070
	18	1.7	55	52	11.09	0.25	0.3192	0.0074
K1802J1								
	1	2.0	293	52	14.88	0.33	0.1135	0.0024
	2	1.6	178	52	14.77	0.35	0.1220	0.0026
	3	1.8	221	52	14.79	0.33	0.1180	0.0025
	4	1.7	220	50	15.17	0.39	0.1145	0.0024
	5	1.5	266	49	15.17	0.37	0.1035	0.0022
	6	1.4	264	52	15.15	0.32	0.0991	0.0021
	7	1.8	265	52	14.93	0.31	0.1154	0.0026
	8	1.8	303	51	15.11	0.34	0.1047	0.0029
	9	1.6	298	51	15.08	0.32	0.1016	0.0023
	10	1.5	280	49	15.11	0.41	0.1018	0.0022
	11	1.8	314	49	15.46	0.36	0.0991	0.0021
	12	1.7	365	53	15.53	0.34	0.0914	0.0019
	13	1.6	240	53	15.22	0.35	0.1140	0.0025
	14	1.6	359	53	15.48	0.36	0.0911	0.0019
	15	1.6	318	52	15.58	0.32	0.0985	0.0021
	16	1.3	160	51	15.08	0.34	0.1274	0.0028
	17	1.7	183	49	15.04	0.27	0.1408	0.0035
	18	1.6	106	52	13.59	0.39	0.1937	0.0077
	19	1.4	163	52	14.88	0.29	0.1322	0.0028
	20	1.1	84	53	14.47	0.38	0.1702	0.0039
	21	1.3	135	52	14.86	0.31	0.1435	0.0042
	22	1.7	43	51	10.55	0.39	0.3720	0.0159
	23	1.6	226	50	15.06	0.32	0.1160	0.0025
	24	1.5	187	52	15.11	0.32	0.1226	0.0026
	25	1.6	177	53	14.86	0.33	0.1340	0.0038

	26	2.9	234	52	14.29	0.33	0.1698	0.0082
	27	1.6	169	53	14.97	0.38	0.1289	0.0028
	28	1.6	479	52	15.80	0.30	0.0855	0.0018
	29	1.8	172	52	14.68	0.28	0.1405	0.0030
	30	1.6	172	52	15.06	0.29	0.1248	0.0027
	31	1.7	274	53	15.38	0.33	0.1076	0.0023
	32	1.5	141	52	14.66	0.28	0.1412	0.0031
K1803C1								
	1	4.4	72	56	11.90	0.33	0.2397	0.0058
	2	4.6	28	58	8.14	0.26	0.3955	0.0092
	3	42.1	184	57	7.15	0.19	0.4655	0.0095
	4	61.0	174	56	5.43	0.14	0.5429	0.0110
	5	12.6	47	57	6.34	0.18	0.5024	0.0109
	6	23.4	186	55	9.65	0.24	0.3594	0.0073
	7	6.2	606	86	15.72	0.40	0.0827	0.0018
	8	32.7	213	56	8.89	0.24	0.3984	0.0082
	9	16.1	177	56	10.58	0.34	0.2984	0.0083
	10	32.2	164	54	7.71	0.21	0.4414	0.0091
	11	23.7	166	55	9.02	0.28	0.3803	0.0085
	12	18.8	351	59	11.89	0.31	0.2017	0.0041
	13	3.4	34	57	10.37	0.32	0.3219	0.0081
	14	4.5	94	53	12.79	0.35	0.2131	0.0049
	15	5.7	73	56	11.29	0.31	0.2745	0.0064
	16	6.0	304	58	14.60	0.39	0.1230	0.0028
	17	3.5	359	56	15.38	0.42	0.0898	0.0021
	18	4.2	17	43	6.78	0.26	0.4906	0.0114
	19	3.2	25	64	9.27	0.30	0.3562	0.0085
	20	6.8	508	97	15.92	0.48	0.0834	0.0019
	21	5.1	486	78	15.43	0.49	0.0801	0.0017
	22	3.5	119	52	13.07	0.39	0.1463	0.0034
	23	8.5	6	50	2.25	0.18	0.6659	0.0156
	24	51.2	205	52	6.74	0.22	0.4851	0.0100
	25	20.8	370	56	12.55	0.36	0.2213	0.0046
	26	5.5	278	59	14.04	0.44	0.1233	0.0050
	27	3.8	17	52	7.30	0.25	0.4641	0.0106
	28	12.0	416	58	13.02	0.39	0.1439	0.0036
	29	3.8	9	55	4.59	0.23	0.5850	0.0134
	30	2.8	53	41	12.52	0.35	0.2225	0.0050
	31	4.1	63	57	11.56	0.40	0.2495	0.0078
	32	3.0	64	55	12.99	0.33	0.2082	0.0049
	33	2.9	71	55	13.05	0.39	0.1962	0.0042
	34	3.2	10	62	5.83	0.25	0.5297	0.0129
	35	19.8	221	56	10.88	0.31	0.2979	0.0061
	36	22.1	230	56	8.54	0.24	0.2533	0.0053
K5702D2								
	1	3.4	808	89	15.94	0.29	0.0749	0.0015
	2	3.4	816	96	15.81	0.31	0.0751	0.0015
	3	2.8	709	81	15.92	0.32	0.0755	0.0015
	4	3.2	729	90	15.80	0.25	0.0762	0.0016
	5	2.8	705	86	15.65	0.30	0.0773	0.0016
	6	4.1	749	100	15.78	0.35	0.0785	0.0016
	7	2.9	485	96	15.75	0.31	0.0844	0.0017

	8	4.0	707	84	15.68	0.38	0.0849	0.0017
	9	2.9	604	74	15.90	0.32	0.0850	0.0017
	10	3.0	459	80	15.47	0.29	0.0880	0.0018
	11	3.7	750	68	15.47	0.28	0.0889	0.0018
	12	2.7	562	65	15.51	0.32	0.0889	0.0018
	13	2.7	544	62	15.68	0.29	0.0889	0.0018
	14	3.5	468	92	15.50	0.32	0.0891	0.0018
	15	3.1	496	69	15.28	0.32	0.0927	0.0020
	16	3.3	402	75	15.29	0.33	0.1019	0.0025
	17	2.9	480	57	15.03	0.36	0.1027	0.0022
	18	3.9	478	76	15.14	0.33	0.1050	0.0022
	19	3.0	301	69	14.90	0.33	0.1072	0.0022
	20	2.3	256	64	15.29	0.26	0.1074	0.0022
	21	4.2	462	71	15.23	0.28	0.1137	0.0024
	22	1.6	179	44	15.04	0.30	0.1194	0.0025
	23	2.1	201	67	14.94	0.28	0.1238	0.0026
	24	2.1	195	51	14.58	0.31	0.1293	0.0027
	25	3.2	203	51	13.59	0.44	0.1871	0.0044
	26	2.0	54	38	10.26	0.20	0.3630	0.0078
	27	6.1	45	38	5.23	0.12	0.6191	0.0126
	28	7.4	48	39	4.69	0.11	0.6446	0.0131
	29	7.1	37	40	3.95	0.10	0.6801	0.0138
	30	7.6	37	37	3.81	0.10	0.6872	0.0140
	31	7.4	34	45	3.55	0.11	0.6986	0.0143
	32	9.0	34	42	3.09	0.08	0.7252	0.0147
	33	8.6	31	46	3.01	0.07	0.7309	0.0148
	34	8.6	29	43	2.81	0.07	0.7436	0.0151
	35	9.9	27	37	2.35	0.06	0.7691	0.0155
K7717K								
	1	3.7	128	65	14.60	0.29	0.1355	0.0038
	2	18.5	187	44	11.00	0.17	0.3423	0.0087
	3	23.0	116	44	8.33	0.23	0.5115	0.0110
	4	3.0	129	72	15.27	0.31	0.1138	0.0028
	5	3.7	140	43	14.47	0.35	0.1516	0.0035
	6	2.9	117	83	14.97	0.36	0.1190	0.0027
	7	35.1	148	43	7.54	0.15	0.5334	0.0109
K7718I1								
	1	40.9	141	49	3.00	0.07	0.7665	0.0154
	2	38.2	151	50	3.40	0.08	0.7480	0.0150
	3	24.1	185	50	5.57	0.14	0.6194	0.0125
	4	32.6	238	51	5.27	0.12	0.6375	0.0131
	5	30.9	249	51	5.74	0.15	0.6114	0.0124
	6	35.4	170	50	3.97	0.11	0.7119	0.0149
	7	36.0	209	50	4.51	0.12	0.6803	0.0140
	8	35.6	253	51	5.29	0.12	0.6412	0.0129
	9	10.9	207	50	9.01	0.26	0.4290	0.0087
	10	28.6	142	50	4.00	0.08	0.7080	0.0143
	11	4.1	55	49	7.35	0.17	0.4933	0.0101
	12	0.9	79	51	13.57	0.37	0.1805	0.0039
	13	31.9	179	51	4.42	0.10	0.6804	0.0140
	14	33.2	178	50	4.23	0.10	0.6885	0.0141
	15	34.5	176	50	4.17	0.09	0.6985	0.0140

	16	34.4	167	50	4.00	0.10	0.7078	0.0142
	17	35.6	200	51	4.45	0.09	0.6821	0.0137
	18	29.9	267	53	6.17	0.15	0.5799	0.0117
	19	35.1	173	50	4.02	0.09	0.6994	0.0140
	20	27.8	246	52	6.14	0.16	0.5845	0.0125
	21	11.5	103	53	6.22	0.13	0.5744	0.0116
	22	30.6	166	50	4.32	0.10	0.6855	0.0138
	23	34.2	213	51	4.81	0.09	0.6535	0.0132
	24	30.8	167	50	4.31	0.10	0.6892	0.0139
	25	29.1	204	51	5.20	0.15	0.6382	0.0149
	26	1.0	51	51	12.22	0.46	0.2541	0.0090
	27	1.1	29	48	10.04	0.37	0.3468	0.0124
	28	26.5	247	52	6.36	0.20	0.5684	0.0130
	29	13.6	242	50	8.79	0.18	0.4349	0.0088
	30	12.5	221	51	8.79	0.20	0.4348	0.0088
	31	42.3	214	50	4.05	0.10	0.6990	0.0140
	32	40.4	201	50	4.09	0.09	0.7033	0.0141
M8710A1								
	1	1.2	46	48	11.63	0.17	0.2786	0.0067
	2	3.1	66	45	9.39	0.22	0.3923	0.0093
	3	3.9	32	49	5.83	0.15	0.5845	0.0132
	4	2.2	18	46	5.80	0.20	0.5955	0.0142
	5	1.4	19	56	7.50	0.27	0.4870	0.0126
	6	1.9	19	50	6.42	0.26	0.5717	0.0150
	7	1.5	25	45	8.04	0.36	0.4746	0.0139
	8	3.1	26	56	6.06	0.17	0.5881	0.0132
	9	1.2	28	59	9.61	0.33	0.3755	0.0128
M8710E1								
	1	1.0	60	45	13.18	0.18	0.2256	0.0056
	2	1.0	51	46	12.53	0.19	0.2517	0.0067
	3	1.2	96	49	13.86	0.18	0.1887	0.0046
	4	0.9	36	48	12.03	0.18	0.2957	0.0080
	5	1.3	99	48	13.53	0.31	0.1916	0.0060
	6	3.3	60	45	9.12	0.31	0.4629	0.0188
	7	1.2	86	42	13.84	0.22	0.2014	0.0049
	8	1.6	53	46	11.23	0.17	0.3311	0.0080
	9	1.0	72	37	13.45	0.20	0.2037	0.0051
	10	1.5	65	42	12.36	0.23	0.2716	0.0071
	11	13.6	96	46	5.46	0.18	0.6715	0.0164
	12	5.5	24	43	3.71	0.14	0.7547	0.0164
	13	8.5	32	43	3.36	0.08	0.7671	0.0159
	14	5.1	15	43	2.73	0.08	0.7961	0.0176
	15	3.7	10	42	2.68	0.11	0.8013	0.0183
	16	3.8	13	43	3.04	0.10	0.8014	0.0178
	17	2.3	7	43	2.54	0.17	0.8084	0.0225
	18	5.8	16	44	2.60	0.10	0.8177	0.0177
	19	4.0	11	44	2.53	0.08	0.8202	0.0182
	20	5.0	6	43	1.25	0.08	0.8987	0.0201
M8711C1								
	1	3.1	432	66	14.51	0.42	0.1189	0.0053
	2	2.4	447	65	14.78	0.42	0.1057	0.0056
	3	1.7	420	75	14.94	0.39	0.0856	0.0018

	4	2.0	511	65	15.24	0.35	0.0891	0.0019
	5	1.5	514	76	15.05	0.37	0.0789	0.0017
	6	2.4	441	64	14.82	0.32	0.1059	0.0027
	7	3.1	443	59	14.40	0.36	0.1215	0.0031
	8	2.0	623	64	15.23	0.43	0.0851	0.0019
	9	1.6	719	77	15.36	0.45	0.0731	0.0015
	10	1.5	583	74	15.36	0.34	0.0764	0.0016
	11	1.5	668	75	15.38	0.37	0.0740	0.0015
	12	1.9	488	68	15.03	0.41	0.0907	0.0021
	13	1.5	614	78	15.43	0.35	0.0755	0.0016
	14	1.6	680	71	15.23	0.34	0.0750	0.0016
	15	1.9	422	75	14.98	0.39	0.0902	0.0022
	16	1.5	441	81	15.10	0.37	0.0803	0.0017
	17	1.8	439	73	15.39	0.38	0.0907	0.0019
	18	1.8	691	69	15.15	0.32	0.0781	0.0016
	19	1.8	739	73	15.41	0.37	0.0752	0.0015
	20	1.8	693	70	15.20	0.33	0.0766	0.0016
	21	1.7	692	70	15.40	0.41	0.0757	0.0017
	22	1.5	640	75	15.36	0.31	0.0740	0.0015
	23	1.7	634	68	15.06	0.36	0.0781	0.0019
	24	1.9	560	68	15.23	0.39	0.0854	0.0024
	25	1.6	560	91	15.46	0.35	0.0738	0.0015
	26	2.6	477	125	15.20	0.34	0.0821	0.0017
	27	1.7	352	110	15.01	0.34	0.0815	0.0017
	28	2.1	444	106	15.40	0.29	0.0825	0.0017
	29	2.7	450	98	15.09	0.36	0.0916	0.0020
	30	1.5	417	92	15.52	0.35	0.0796	0.0016
	31	2.1	467	65	15.16	0.41	0.0969	0.0025
	32	1.7	953	70	15.32	0.45	0.0714	0.0015
	33	2.3	384	74	15.13	0.40	0.1033	0.0025
	34	2.8	892	62	14.91	0.61	0.0864	0.0018
	35	1.6	492	86	15.09	0.32	0.0772	0.0017
	36	1.8	453	92	15.03	0.39	0.0813	0.0017
M8714G								
	1	13.4	221	225	7.10	0.13	0.1624	0.0035
	2	12.0	219	453	7.29	0.14	0.1240	0.0029
	3	8.4	384	340	9.63	0.20	0.1021	0.0021
	4	4.7	293	204	13.78	0.23	0.1029	0.0022
	5	4.2	289	205	13.56	0.22	0.0990	0.0021
	6	23.2	369	211	5.46	0.10	0.1525	0.0039
	7	9.8	212	206	9.79	0.19	0.1544	0.0063
	8	13.4	433	603	5.24	0.10	0.1070	0.0022
	9	19.1	416	874	4.20	0.07	0.1102	0.0022
	10	8.2	288	200	11.58	0.20	0.1271	0.0036
	11	9.4	223	181	10.52	0.26	0.1611	0.0079
	12	6.7	347	193	13.93	0.24	0.1086	0.0024
	13	5.0	314	204	13.03	0.20	0.0996	0.0021
	14	18.1	371	327	6.62	0.12	0.1248	0.0027
	15	18.5	474	503	4.16	0.07	0.1143	0.0023
	16	12.0	355	475	6.63	0.13	0.1089	0.0022
	17	18.1	489	772	4.40	0.09	0.1094	0.0022
	18	7.6	333	305	7.54	0.14	0.1078	0.0022

	19	13.6	377	539	5.93	0.10	0.1084	0.0022
	20	7.0	297	302	13.73	0.26	0.0970	0.0020
	21	6.7	247	263	13.30	0.28	0.1119	0.0025
	22	20.0	359	195	6.15	0.12	0.1539	0.0038
	23	6.3	261	286	14.62	0.29	0.1010	0.0021
	24	5.6	237	231	14.12	0.24	0.1085	0.0023
	25	15.5	451	593	6.00	0.11	0.1070	0.0022
	26	16.8	431	316	5.84	0.12	0.1213	0.0031
	27	8.7	383	369	10.16	0.21	0.0987	0.0020
	28	19.5	452	694	4.79	0.09	0.1102	0.0022
	29	17.9	449	494	5.11	0.09	0.1123	0.0023
	30	14.9	394	100	8.68	0.21	0.1973	0.0079
	31	19.0	397	148	6.06	0.13	0.1625	0.0042
	32	5.5	224	140	13.81	0.31	0.1445	0.0038
	33	18.7	363	230	7.17	0.12	0.1448	0.0034
	34	11.5	402	499	8.17	0.17	0.1023	0.0021
M8714J1								
	1	14.2	247	277	5.27	0.04	0.1150	0.0023
	2	42.8	167	984	6.77	0.07	0.1065	0.0022
	3	3.2	84	48	6.27	0.05	0.1061	0.0021
	4	15.8	147	335	5.64	0.06	0.1251	0.0025
	5	74.2	154	1546	7.05	0.06	0.1077	0.0022
	6	33.8	97	714	8.20	0.14	0.0996	0.0020
	7	31.9	118	755	11.66	0.16	0.0994	0.0021
	8	27.1	278	554	7.31	0.08	0.1169	0.0024
	9	2.1	125	53	12.93	0.22	0.1784	0.0039
	10	78.3	340	1728	5.00	0.08	0.1139	0.0024
	11	65.5	257	1262	4.33	0.08	0.1171	0.0024
	12	109.0	254	2140	7.66	0.06	0.1034	0.0021
	13	63.8	339	1035	4.64	0.05	0.1115	0.0022
	14	23.5	219	474	4.97	0.06	0.1240	0.0026
	15	66.7	128	1017	4.69	0.08	0.1195	0.0025
	16	57.8	137	1203	10.29	0.20	0.1220	0.0027
	17	121.0	172	1949	14.84	0.30	0.1158	0.0028
	18	14.2	82	351	12.95	0.26	0.1352	0.0029
	19	62.3	180	1118	3.54	0.04	0.1175	0.0024
P5624I9								
	1	0.8	431	88	15.72	0.25	0.0729	0.0020
	2	7.3	109	50	7.56	0.17	0.4461	0.0132
	3	1.3	621	56	15.87	0.26	0.0650	0.0019
	4	3.7	766	84	15.24	1.01	0.0953	0.0073
	5	13.1	325	52	9.39	0.38	0.3564	0.0152
	6	11.7	251	48	9.20	0.21	0.3733	0.0115
	7	34.6	229	50	4.76	0.10	0.5916	0.0174
	8	1.2	5	44	3.32	0.18	0.6568	0.0402
	9	3.5	123	57	10.76	0.34	0.2933	0.0126
	10	38.6	266	48	4.71	0.10	0.5921	0.0177
	11	40.4	291	49	4.78	0.10	0.5803	0.0175
	12	38.8	261	48	4.67	0.09	0.5885	0.0160
	13	38.0	271	47	4.90	0.11	0.5790	0.0156
	14	38.4	265	45	4.74	0.11	0.5908	0.0151
	15	0.6	139	18	15.20	0.37	0.1021	0.0049

	16	6.8	523	42	13.65	0.33	0.1797	0.0085
	17	13.8	273	44	9.08	0.13	0.3917	0.0106
	18	30.0	264	43	5.75	0.12	0.5448	0.0144
	19	9.7	282	63	10.74	0.32	0.3146	0.0090
	20	9.7	204	58	9.16	0.23	0.3667	0.0106
	21	0.9	108	-9	14.77	0.41	0.1224	0.0080
	22	1.1	82	32	13.93	0.61	0.1630	0.0096
	23	1.9	300	88	15.60	0.28	0.0712	0.0020
	24	20.3	340	68	12.13	0.69	0.2441	0.0117
	25	3.0	412	72	15.33	0.28	0.0717	0.0020
P5626H2								
	1	15.4	70	981	6.37	0.11	0.1214	0.0025
	2	0.9	66	73	13.97	0.38	0.1376	0.0032
	3	23.7	75	938	6.49	0.11	0.1507	0.0036
	4	24.4	74	1210	6.04	0.09	0.1294	0.0028
	5	21.5	70	529	6.28	0.12	0.1988	0.0043
	6	22.4	74	1354	6.11	0.11	0.1237	0.0026
	7	19.3	81	547	6.23	0.10	0.1620	0.0033
	8	19.4	81	283	6.35	0.12	0.2615	0.0061
	9	18.9	76	439	5.87	0.10	0.1923	0.0062
	10	10.1	70	281	8.64	0.20	0.2145	0.0049
	11	21.2	70	1085	6.24	0.11	0.1320	0.0029
	12	15.8	75	531	6.44	0.12	0.1563	0.0033
	13	19.1	78	531	6.32	0.11	0.1707	0.0035
	14	12.6	62	558	6.51	0.12	0.1518	0.0032
	15	16.8	71	367	6.45	0.10	0.2131	0.0045
	16	9.5	62	214	9.16	0.15	0.2901	0.0061
	17	11.3	62	382	7.46	0.17	0.1961	0.0041
	18	12.1	52	148	5.68	0.12	0.3844	0.0088
	19	3.9	47	217	6.60	0.14	0.1591	0.0037
	20	9.1	62	365	6.60	0.11	0.1632	0.0036
	21	2.1	37	86	10.67	0.23	0.2977	0.0064
	22	16.7	81	821	6.41	0.12	0.1270	0.0026
	23	19.1	78	579	6.12	0.12	0.1663	0.0037
	24	20.9	74	809	6.01	0.11	0.1502	0.0032
	25	14.2	53	445	6.18	0.12	0.2032	0.0042
	26	3.3	19	104	6.62	0.18	0.4501	0.0166
	27	8.4	40	223	7.16	0.12	0.2945	0.0070
	28	11.1	63	667	8.07	0.24	0.1484	0.0033
	29	12.6	56	493	6.92	0.13	0.1773	0.0038
	30	2.4	56	72	11.01	0.20	0.2812	0.0063
P5626N								
	1	2.0	124	50	13.08	0.34	0.2087	0.0046
	2	1.4	54	51	12.56	0.17	0.2529	0.0054
	3	1.6	100	62	13.86	0.39	0.1796	0.0038
	4	1.5	81	61	13.55	0.20	0.1915	0.0041
	5	1.1	61	50	13.25	0.29	0.1948	0.0043
	6	1.5	68	55	13.09	0.27	0.2183	0.0046
	7	1.6	141	62	14.52	0.23	0.1421	0.0040
	8	1.3	73	56	13.59	0.25	0.1880	0.0043
	9	1.1	38	47	11.67	0.22	0.2887	0.0079
	10	1.4	27	45	9.26	0.40	0.4236	0.0227

	11	1.8	65	51	12.06	0.20	0.2628	0.0057
	12	1.2	92	53	14.30	0.28	0.1554	0.0033
	13	1.5	174	57	14.66	0.27	0.1228	0.0026
	14	1.5	178	61	15.02	0.22	0.1207	0.0025
	15	1.7	110	70	14.11	0.26	0.1550	0.0033
	16	1.6	27	47	8.89	0.20	0.4280	0.0093
	17	1.3	27	44	9.49	0.34	0.3890	0.0086
	18	1.7	65	61	12.49	0.25	0.2342	0.0049
	19	1.2	22	42	8.90	0.15	0.4343	0.0093
	20	1.3	29	43	9.94	0.20	0.3756	0.0080
	21	1.4	22	43	8.51	0.13	0.4580	0.0097
	22	1.4	48	53	11.73	0.19	0.2758	0.0058
	23	3.9	343	110	14.98	0.25	0.1077	0.0022
	24	1.6	35	47	10.25	0.21	0.3755	0.0081
P5626P1								
	1	12.7	10	48	2.32	0.04	0.8139	0.0166
	2	9.9	34	67	8.36	0.08	0.4801	0.0097
	3	7.9	18	53	5.88	0.06	0.6172	0.0126
	4	9.3	24	49	5.91	0.09	0.6218	0.0129
	5	6.6	34	56	9.19	0.12	0.4396	0.0091
	6	7.5	33	54	8.43	0.12	0.4829	0.0101
	7	6.1	54	51	11.06	0.13	0.3464	0.0072
	8	6.4	47	55	10.43	0.12	0.3815	0.0079
	9	7.1	20	47	6.19	0.06	0.6028	0.0123
	10	7.3	10	46	3.66	0.05	0.7378	0.0152
	11	10.7	17	47	4.11	0.07	0.7212	0.0150
P5627D1								
	1	0.8	14	47	8.47	0.19	0.4393	0.0094
	2	0.8	16	48	8.83	0.32	0.4277	0.0094
	3	0.8	16	43	9.14	0.16	0.4106	0.0088
	4	0.8	15	48	8.86	0.17	0.4206	0.0089
	5	0.6	7	48	7.01	0.15	0.5211	0.0114
	6	0.8	15	49	8.87	0.15	0.4297	0.0095
	7	1.2	28	76	11.42	0.22	0.2699	0.0058
	8	1.2	48	72	12.77	0.22	0.2171	0.0048
	9	0.9	39	56	12.29	0.26	0.2431	0.0054
	10	0.8	46	53	13.02	0.23	0.2027	0.0043
	11	1.0	32	52	11.33	0.23	0.2907	0.0063
	12	2.0	67	53	11.05	0.47	0.2999	0.0070
	13	1.0	46	49	12.22	0.25	0.2384	0.0053
	14	2.0	48	49	9.80	0.17	0.3618	0.0076
	15	0.9	57	57	13.18	0.21	0.1860	0.0039
	16	0.9	49	53	12.74	0.23	0.2137	0.0045
	17	1.6	34	47	9.36	0.25	0.3987	0.0084
	18	7.6	96	48	7.29	0.10	0.5139	0.0104
	19	1.0	24	47	9.94	0.15	0.3635	0.0078
	20	7.8	52	47	4.97	0.09	0.6518	0.0131
	21	16.8	54	48	2.86	0.05	0.7641	0.0154
P5627K4								
	1	2.4	6	43	5.69	0.17	0.6450	0.0272
	2	3.6	9	55	6.24	0.16	0.6100	0.0201
	3	3.5	30	76	11.27	0.32	0.3290	0.0128

	4	4.3	83	76	13.89	0.23	0.1777	0.0048
	5	4.6	102	88	14.24	0.19	0.1604	0.0047
	6	6.2	152	104	14.87	0.21	0.1406	0.0038
	7	6.3	276	102	15.24	0.20	0.1023	0.0025
	8	6.3	171	97	14.77	0.16	0.1314	0.0036
	9	5.5	142	93	14.51	0.21	0.1393	0.0035
P5628E5								
	1	9.2	4	31	0.45	0.03	0.9672	0.0200
	2	5.3	2	32	0.32	0.06	0.9648	0.0200
	3	5.6	2	32	0.45	0.04	0.9595	0.0199
	4	8.7	6	32	0.75	0.02	0.9460	0.0192
	5	4.3	1	30	0.34	0.05	0.9615	0.0205
	6	9.2	13	33	1.45	0.04	0.8952	0.0181
	7	8.6	10	33	1.26	0.04	0.9050	0.0185
	8	5.6	28	31	4.44	0.12	0.7252	0.0153
	9	2.2	74	31	11.36	0.21	0.3245	0.0074
	10	1.6	129	32	13.54	0.23	0.1812	0.0039
	11	3.3	59	32	8.74	0.33	0.4595	0.0103
	12	6.0	191	34	11.04	0.28	0.3225	0.0076
	13	1.6	184	35	13.89	0.29	0.1514	0.0033
	14	2.9	3	29	1.01	0.09	0.9156	0.0198
	15	2.7	51	30	9.04	0.24	0.4335	0.0109
	16	5.2	4	30	0.81	0.03	0.9260	0.0190
	17	7.2	9	32	1.32	0.04	0.8946	0.0184
	18	8.2	15	30	1.93	0.07	0.8566	0.0185
	19	3.8	3	33	0.88	0.06	0.9210	0.0193
	20	8.1	4	33	0.54	0.03	0.9416	0.0195
	21	3.1	5	30	1.66	0.07	0.8675	0.0183
	22	2.6	3	33	1.09	0.06	0.9039	0.0191
P5628U								
	1	0.5	157	7	15.24	0.26	0.0905	0.0019
	2	3.3	170	28	12.40	0.22	0.2461	0.0052
	3	0.4	146	11	15.08	0.23	0.0908	0.0019
	4	5.9	159	35	10.58	0.18	0.3541	0.0073
	5	0.5	136	15	15.23	0.32	0.0936	0.0020
	6	0.5	162	17	15.35	0.28	0.0885	0.0018
	7	0.5	118	19	15.05	0.51	0.1006	0.0023
	8	6.9	161	37	9.97	0.18	0.3871	0.0078
	9	4.0	232	37	12.99	0.21	0.2244	0.0060
	10	3.4	116	37	11.10	0.29	0.3112	0.0128
	11	1.0	121	34	14.35	0.27	0.1486	0.0045
	12	10.8	584	39	12.82	0.25	0.2329	0.0047
	13	5.8	230	37	11.79	0.27	0.2909	0.0060
	14	32.8	254	40	5.72	0.11	0.6411	0.0128
	15	22.2	196	39	6.19	0.12	0.6146	0.0124
	16	23.4	463	41	9.40	0.20	0.4297	0.0090
	17	44.7	189	42	3.90	0.08	0.7495	0.0150
	18	15.8	143	40	6.45	0.14	0.6117	0.0132
	19	39.4	177	41	3.81	0.12	0.7525	0.0160
	20	36.0	377	41	6.94	0.12	0.5765	0.0116
	21	8.8	245	39	10.75	0.21	0.3571	0.0072
	22	36.5	170	40	3.95	0.10	0.7462	0.0150

	23	32.0	402	42	7.63	0.17	0.5311	0.0107
	24	31.5	230	41	5.48	0.10	0.6591	0.0133
	25	13.9	333	40	10.06	0.21	0.3916	0.0083
	26	10.3	234	40	9.94	0.22	0.3995	0.0081
	27	7.8	198	40	10.34	0.18	0.3804	0.0077
	28	7.5	173	39	9.94	0.17	0.4025	0.0081
	29	10.2	202	40	9.35	0.22	0.4340	0.0090
P5630A1								
	1	23.6	49	162	5.73	0.09	0.2603	0.0060
	2	11.5	24	68	6.16	0.13	0.5458	0.0144
	3	10.4	6	41	1.73	0.08	0.8666	0.0191
	4	14.6	11	45	2.22	0.07	0.8075	0.0185
	5	9.8	6	42	1.85	0.09	0.8653	0.0189
	6	8.8	16	58	3.92	0.28	0.5764	0.0295
	7	7.0	4	44	1.60	0.07	0.8821	0.0195
	8	34.6	111	182	5.83	0.08	0.1842	0.0043
	9	21.8	20	46	2.57	0.08	0.7429	0.0186
	10	7.3	5	42	1.87	0.09	0.8691	0.0201
	11	12.5	8	44	1.89	0.09	0.8480	0.0180
	12	10.1	18	58	5.13	0.11	0.6053	0.0157
	13	22.5	42	98	4.85	0.07	0.3617	0.0077
	14	6.2	4	43	1.99	0.15	0.8732	0.0201
	15	6.2	4	44	1.86	0.11	0.8858	0.0211
	16	9.9	23	72	4.68	0.20	0.3920	0.0259
	17	6.4	8	45	3.16	0.17	0.6762	0.0284
	18	5.2	6	42	3.28	0.13	0.7914	0.0179
	19	57.0	87	169	5.70	0.08	0.3188	0.0070
	20	49.5	30	46	1.88	0.03	0.8362	0.0170
	21	6.7	6	45	2.59	0.09	0.7532	0.0202
	22	11.9	25	56	4.26	0.27	0.5206	0.0270
	23	11.9	10	40	2.50	0.07	0.8210	0.0176
	24	5.5	4	40	2.28	0.16	0.8543	0.0234
	25	6.1	4	40	1.89	0.16	0.8772	0.0201
	26	5.9	4	42	1.93	0.14	0.8592	0.0205
	27	11.9	9	43	2.19	0.06	0.8542	0.0186
	28	6.1	5	40	2.37	0.11	0.8384	0.0187
	29	6.1	5	41	2.47	0.10	0.8322	0.0191
	30	4.7	5	43	2.97	0.14	0.8041	0.0179
P5630A3								
	1	1.3	10	42	5.25	0.16	0.6232	0.0132
	2	1.8	10	44	4.36	0.14	0.6700	0.0143
	3	11.2	15	49	1.29	0.04	0.8414	0.0170
	4	4.9	13	48	2.35	0.07	0.7816	0.0160
	5	12.4	14	50	1.13	0.04	0.8467	0.0170
	6	3.9	27	72	5.08	0.18	0.4387	0.0092
	7	2.8	25	77	6.50	0.20	0.4136	0.0086
	8	3.2	30	82	6.31	0.21	0.3613	0.0076
	9	2.9	30	81	7.76	0.26	0.3770	0.0080
	10	2.3	23	68	7.73	0.27	0.4467	0.0096
	11	4.2	24	79	4.74	0.14	0.4485	0.0094
	12	4.2	16	82	3.92	0.12	0.5064	0.0105
	13	5.4	24	67	3.86	0.14	0.5292	0.0109

	14	3.3	13	54	3.15	0.13	0.6394	0.0133
	15	5.1	5	46	0.93	0.04	0.8739	0.0177
	16	3.2	8	43	2.34	0.09	0.7922	0.0163
	17	9.9	14	45	1.36	0.04	0.8616	0.0174
	18	8.4	12	45	1.36	0.06	0.8640	0.0175
	19	2.0	5	42	2.29	0.11	0.8071	0.0169
	20	1.3	10	41	5.45	0.23	0.6381	0.0135
	21	7.6	11	47	1.34	0.04	0.8538	0.0173
	22	5.1	10	47	1.81	0.06	0.8167	0.0167
	23	7.1	11	49	1.49	0.05	0.8270	0.0167
	24	5.8	14	50	2.14	0.08	0.7818	0.0159
	25	4.8	10	50	1.84	0.08	0.7944	0.0163
	26	2.9	11	48	3.11	0.10	0.7292	0.0149
	27	4.5	20	57	3.81	0.10	0.6161	0.0126
	28	4.4	22	60	4.16	0.12	0.5723	0.0118
	29	3.3	20	56	5.04	0.15	0.5973	0.0123
	30	4.3	22	62	4.62	0.13	0.5895	0.0121
P5630G2								
	1	2.3	35	44	12.05	0.13	0.2510	0.0053
	2	2.3	35	77	12.16	0.12	0.2514	0.0054
	3	2.3	35	82	12.14	0.12	0.2513	0.0054
	4	2.2	35	80	12.30	0.13	0.2502	0.0054
	5	2.3	35	81	12.11	0.14	0.2512	0.0054
	6	1.9	14	20	9.52	0.15	0.3966	0.0093
	7	1.9	14	42	9.62	0.17	0.3888	0.0089
	8	2.0	14	39	9.39	0.16	0.4140	0.0095
	9	2.2	15	34	9.18	0.19	0.4144	0.0095
	10	2.3	15	57	9.34	0.18	0.4210	0.0096
	11	2.6	26	23	10.83	0.19	0.3375	0.0079
	12	2.2	14	38	9.05	0.19	0.4268	0.0099
	13	2.5	23	49	10.50	0.19	0.3395	0.0085
	14	2.6	25	42	10.72	0.17	0.3396	0.0078
	15	2.6	24	51	10.60	0.16	0.3377	0.0076
	16	1.6	9	16	8.48	0.19	0.4645	0.0117
	17	1.8	10	43	8.53	0.23	0.4609	0.0114
	18	1.9	20	46	11.03	0.22	0.3225	0.0080
	19	2.1	21	69	10.79	0.20	0.3269	0.0082
	20	2.3	24	78	10.89	0.17	0.3250	0.0078
	21	2.1	24	15	11.07	0.31	0.3130	0.0084
	22	2.1	17	71	9.87	0.28	0.3711	0.0098
	23	2.1	17	45	10.00	0.27	0.3749	0.0099
	24	2.0	23	70	11.20	0.28	0.3134	0.0083
	25	2.5	23	39	10.41	0.25	0.3556	0.0086
	26	1.9	16	12	9.89	0.23	0.3644	0.0100
	27	1.9	17	65	10.29	0.21	0.3455	0.0096
	28	1.9	16	74	9.96	0.27	0.3563	0.0096
	29	2.2	21	66	10.46	0.19	0.3380	0.0084
P5710A5								
	1	1.2	19	66	8.17	0.32	0.4730	0.0127
	2	1.2	14	45	6.81	0.37	0.5348	0.0128
	3	1.3	12	46	6.06	0.37	0.5931	0.0151
	4	1.2	20	50	8.18	0.31	0.4701	0.0115

	5	1.1	37	38	11.20	0.29	0.3051	0.0077
	6	1.1	38	48	11.20	0.29	0.3022	0.0074
	7	1.4	9	51	4.26	0.60	0.6420	0.0190
	8	1.1	35	38	10.96	0.25	0.3203	0.0079
	9	3.4	11	47	2.89	0.18	0.7608	0.0182
	10	2.0	13	51	4.44	0.30	0.6510	0.0164
	11	1.9	10	48	3.88	0.32	0.6840	0.0169
	12	1.2	42	64	11.35	0.26	0.2832	0.0085
	13	1.2	15	42	7.19	0.29	0.5299	0.0138
P6805B3								
	1	31.4	5	39	0.45	0.04	0.8821	0.0187
	2	23.0	27	40	3.02	0.10	0.7397	0.0165
	3	66.3	75	40	3.08	0.03	0.7432	0.0150
	4	54.8	18	38	1.07	0.03	0.8479	0.0174
	5	88.1	41	40	1.41	0.02	0.8290	0.0167
	6	62.3	23	39	1.11	0.03	0.8497	0.0172
	7	85.9	102	40	3.17	0.04	0.7335	0.0148
	8	68.6	31	40	1.42	0.03	0.8294	0.0176
	9	95.8	60	40	1.76	0.04	0.8115	0.0171
	10	28.4	5	36	0.56	0.04	0.8739	0.0184
	11	28.0	9	38	0.96	0.03	0.8501	0.0174
	12	80.0	93	40	3.13	0.03	0.7330	0.0148
	13	80.5	100	39	3.29	0.03	0.7233	0.0146
	14	73.8	75	39	2.84	0.03	0.7503	0.0151
	15	91.4	97	40	3.01	0.05	0.7484	0.0154
	16	70.3	99	39	3.66	0.06	0.7120	0.0144
P6805F								
	1	13.1	1172	307	15.17	0.23	0.0782	0.0016
	2	14.4	1224	236	14.67	0.23	0.0864	0.0018
	3	19.1	1622	228	13.92	0.19	0.0896	0.0018
	4	25.8	1509	226	12.92	0.40	0.0991	0.0021
	5	21.0	1575	212	12.80	0.17	0.0926	0.0019
	6	24.5	1568	230	11.52	0.14	0.0955	0.0019
	7	27.8	1621	174	11.29	0.16	0.1088	0.0022
	8	29.3	1670	163	11.08	0.15	0.1136	0.0023
	9	27.6	1791	360	11.45	0.17	0.0840	0.0018
	10	3.3	112	1250	11.53	0.21	0.0727	0.0016
	11	27.7	1573	177	10.99	0.16	0.1092	0.0022
	12	23.8	1614	240	11.15	0.18	0.0922	0.0019
	13	27.8	1600	175	10.69	0.14	0.1080	0.0022
	14	25.8	1349	191	10.54	0.18	0.1068	0.0022
	15	27.9	1489	191	10.44	0.14	0.1076	0.0022
	16	25.4	1394	252	10.38	0.16	0.0960	0.0019
	17	25.2	1671	249	10.37	0.17	0.0911	0.0018
	18	29.3	1700	242	10.13	0.14	0.0956	0.0019
	19	32.1	1503	166	9.74	0.12	0.1180	0.0024
	20	29.4	1776	413	9.71	0.15	0.0828	0.0017
	21	30.0	1618	587	8.69	0.14	0.0787	0.0016
	22	32.0	1648	371	8.38	0.21	0.0866	0.0017
	23	30.0	1402	465	8.31	0.11	0.0854	0.0017
	24	35.0	1873	527	8.09	0.13	0.0809	0.0016
	25	33.1	1623	431	8.01	0.12	0.0868	0.0017

	26	36.0	1662	682	7.91	0.07	0.0795	0.0016
	27	38.4	1620	720	7.54	0.08	0.0807	0.0016
	28	34.9	1592	933	7.30	0.13	0.0776	0.0016
P6806B1								
	1	2.2	3	45	1.31	0.20	0.8497	0.0189
	2	1.6	4	41	1.85	0.23	0.8099	0.0177
	3	1.3	14	41	6.80	0.21	0.5632	0.0125
	4	2.2	11	46	4.17	0.15	0.7168	0.0156
	5	1.7	5	44	2.40	0.17	0.7840	0.0166
	6	3.0	26	48	5.74	0.22	0.5969	0.0141
	7	1.9	45	50	10.37	0.27	0.3689	0.0100
	8	9.4	37	52	3.45	0.20	0.7440	0.0153
	9	2.5	18	48	5.36	0.16	0.6311	0.0136
	10	1.6	48	52	11.53	0.28	0.3130	0.0069
	11	2.9	38	50	8.03	0.23	0.4968	0.0107
	12	3.6	13	49	3.18	0.13	0.7556	0.0158
	13	5.0	50	51	6.74	0.20	0.5714	0.0128
	14	1.6	11	44	4.87	0.18	0.6437	0.0139
	15	2.5	11	47	3.73	0.16	0.7129	0.0152
	16	2.8	9	48	3.06	0.12	0.7663	0.0164
	17	1.5	16	45	6.66	0.20	0.5547	0.0124
	18	3.7	11	49	2.70	0.11	0.7685	0.0160
	19	2.7	23	50	5.84	0.19	0.6047	0.0137
	20	2.4	24	48	6.57	0.20	0.5762	0.0124
	21	1.5	9	45	4.55	0.15	0.6788	0.0145
	22	23.9	70	53	2.63	0.10	0.7841	0.0159
	23	2.5	37	48	8.11	0.22	0.4890	0.0103
	24	6.4	43	51	5.10	0.15	0.6520	0.0142
	25	2.4	37	48	8.25	0.27	0.4898	0.0119
	26	2.9	32	48	7.00	0.25	0.5491	0.0129
	27	4.8	6	50	1.25	0.07	0.8491	0.0176
	28	4.1	40	51	6.66	0.18	0.5706	0.0118
	29	3.4	67	52	9.39	0.32	0.4193	0.0109
	30	3.7	64	53	9.17	0.29	0.4368	0.0092
	31	5.3	69	53	7.86	0.31	0.5011	0.0145
P6806F1								
	1	3.8	10	48	5.95	0.09	0.5527	0.0130
	2	6.1	20	67	6.50	0.15	0.3575	0.0090
	3	7.3	23	94	6.92	0.09	0.2886	0.0062
	4	4.6	16	61	6.92	0.12	0.4452	0.0114
	5	5.1	15	52	7.29	0.15	0.5459	0.0123
	6	7.6	23	86	7.34	0.13	0.3208	0.0074
	7	6.0	21	74	7.66	0.09	0.3525	0.0076
	8	7.5	25	78	7.69	0.24	0.3370	0.0086
	9	4.5	12	57	7.72	0.14	0.5520	0.0128
	10	7.1	26	84	8.03	0.09	0.3191	0.0073
	11	6.7	22	68	8.03	0.14	0.4480	0.0107
	12	6.8	25	74	8.52	0.12	0.3615	0.0083
	13	6.8	22	77	8.80	0.12	0.3967	0.0087
	14	6.3	22	67	9.13	0.13	0.4306	0.0095
	15	5.5	21	64	9.26	0.18	0.4435	0.0103
P6806G								

	1	67.5	563	603	10.16	0.18	0.0892	0.0019
	2	67.7	459	232	10.91	0.19	0.1760	0.0125
	3	86.9	532	729	7.97	0.09	0.0918	0.0020
	4	65.5	504	610	10.46	0.11	0.0922	0.0019
	5	68.2	512	388	10.62	0.18	0.1096	0.0027
	6	90.1	527	538	8.01	0.13	0.1092	0.0053
	7	64.3	498	411	9.91	0.10	0.1052	0.0030
	8	72.4	485	706	8.15	0.11	0.0897	0.0018
	9	90.0	484	994	7.14	0.08	0.0872	0.0018
	10	33.2	580	338	8.58	0.10	0.0853	0.0017
	11	33.9	1077	389	7.33	0.08	0.0752	0.0015
	12	30.6	820	358	7.52	0.11	0.0770	0.0016
	13	22.7	592	240	9.19	0.10	0.0839	0.0017
	14	41.5	538	478	8.14	0.09	0.0838	0.0017
	15	13.1	420	133	9.06	0.11	0.0910	0.0018
	16	81.7	502	282	9.10	0.12	0.1376	0.0037
	17	85.6	625	904	8.34	0.10	0.0821	0.0017
	18	98.0	536	1140	7.32	0.10	0.0831	0.0017
	19	44.9	598	432	12.42	0.14	0.0872	0.0018
	20	25.9	659	239	8.76	0.09	0.0833	0.0017
	21	16.9	511	150	13.66	0.15	0.0956	0.0020
	22	23.6	632	231	9.25	0.13	0.0848	0.0017
	23	26.0	636	276	7.76	0.10	0.0827	0.0017
	24	23.1	571	238	8.67	0.11	0.0857	0.0017
	25	28.0	627	259	7.94	0.18	0.0835	0.0017
	26	32.9	570	283	12.17	0.16	0.0919	0.0019
	27	12.9	516	110	11.24	0.15	0.0956	0.0020
	28	28.3	302	254	12.37	0.12	0.1224	0.0030
	29	61.6	388	419	12.21	0.15	0.1212	0.0025
	30	58.4	467	510	9.45	0.10	0.0964	0.0020
P6807A2								
	1	7.0	47	55	10.11	0.34	0.3648	0.0080
	2	1.7	24	66	12.90	0.57	0.2257	0.0062
	3	18.8	11	45	1.62	0.21	0.8757	0.0201
	4	14.9	8	47	1.77	0.12	0.8529	0.0187
	5	6.8	5	43	2.02	0.34	0.8280	0.0252
	6	21.4	19	60	3.26	0.14	0.7751	0.0161
	7	7.3	28	53	8.16	0.26	0.5068	0.0113
	8	6.5	6	44	2.39	0.27	0.8150	0.0236
	9	2.0	5	49	5.65	0.32	0.6320	0.0161
	10	1.9	6	46	6.21	0.93	0.6200	0.0253
	11	1.5	6	48	7.20	0.42	0.5630	0.0157
	12	1.1	6	55	8.59	0.49	0.4800	0.0146
	13	1.3	5	40	5.62	1.17	0.6210	0.0681
P6807C2								
	1	14.0	48	44	3.25	0.07	0.7941	0.0229
	2	24.5	32	45	1.34	0.05	0.8848	0.0255
	3	32.0	44	45	1.45	0.03	0.8916	0.0255
	4	9.5	58	46	4.95	0.12	0.6823	0.0200
	5	4.7	57	45	7.57	0.14	0.5374	0.0161
	6	3.1	3	42	1.00	0.05	0.8826	0.0271
	7	1.7	7	41	3.67	0.11	0.7499	0.0257

	8	2.4	3	42	1.08	0.07	0.8877	0.0308
	9	4.2	6	44	1.54	0.06	0.8587	0.0264
	10	4.4	22	46	4.41	0.13	0.7066	0.0221
	11	10.4	26	46	2.53	0.06	0.8355	0.0244
	12	4.7	33	48	5.82	0.15	0.6432	0.0194
	13	7.0	10	43	1.45	0.03	0.8784	0.0258
	14	3.6	74	46	9.94	0.26	0.4107	0.0131
	15	3.7	85	49	10.51	0.30	0.3713	0.0116
	16	4.3	102	48	10.63	0.25	0.3783	0.0119
	17	3.0	103	49	12.01	0.32	0.3000	0.0095
	18	3.2	56	45	8.91	0.18	0.4444	0.0139
	19	2.5	47	46	9.30	0.31	0.4230	0.0139
	20	2.9	9	41	2.96	0.15	0.7887	0.0270
	21	3.0	28	46	6.91	0.22	0.5980	0.0207
	22	3.3	10	44	2.90	0.09	0.8007	0.0252
P6807D								
	1	10.0	60	47	4.78	0.07	0.6690	0.0135
	2	11.1	63	47	4.56	0.07	0.6869	0.0138
	3	3.9	7	46	1.76	0.04	0.8323	0.0171
	4	4.5	10	46	2.25	0.03	0.8033	0.0163
	5	7.3	33	47	3.92	0.07	0.7184	0.0146
	6	2.6	15	47	4.60	0.13	0.6746	0.0142
	7	1.3	3	45	2.57	0.06	0.7883	0.0170
	8	4.8	11	47	2.29	0.04	0.7995	0.0162
	9	5.0	13	47	2.46	0.04	0.7918	0.0162
	10	8.5	37	47	3.77	0.07	0.7223	0.0146
	11	8.5	58	48	5.27	0.12	0.6420	0.0130
	12	11.7	99	48	6.04	0.12	0.6071	0.0124
	13	5.9	46	48	5.78	0.11	0.6231	0.0126
	14	8.6	85	48	6.67	0.10	0.5713	0.0115
	15	9.9	116	48	7.38	0.11	0.5339	0.0108
	16	8.6	56	47	5.04	0.08	0.6584	0.0133
	17	11.5	77	47	5.18	0.10	0.6570	0.0132
	18	14.7	30	47	1.98	0.04	0.8217	0.0165
	19	6.6	17	48	2.51	0.05	0.7810	0.0158
	20	16.9	76	47	3.83	0.07	0.7396	0.0149
	21	9.4	75	47	5.76	0.10	0.6102	0.0123
P6809B1								
	1	37.8	392	417	7.03	0.06	0.0867	0.0018
	2	48.8	396	590	7.35	0.06	0.0856	0.0018
	3	52.3	373	588	7.47	0.08	0.0886	0.0018
	4	56.0	381	664	7.27	0.07	0.0864	0.0018
	5	50.8	367	543	7.57	0.08	0.0886	0.0018
	6	54.8	448	646	6.93	0.07	0.0841	0.0017
	7	89.6	353	1045	6.77	0.06	0.0884	0.0018
	8	51.3	466	634	7.22	0.08	0.0831	0.0017
	9	52.3	397	633	7.12	0.08	0.0856	0.0018
	10	53.2	457	609	6.66	0.06	0.0827	0.0017
	11	37.8	408	390	7.52	0.08	0.0891	0.0018
	12	47.2	407	567	6.90	0.06	0.0860	0.0018
	13	77.0	382	889	6.86	0.07	0.0883	0.0018
	14	20.1	505	265	7.29	0.08	0.0814	0.0017

	15	95.5	335	1123	6.60	0.07	0.0907	0.0019
	16	62.3	368	750	6.64	0.07	0.0885	0.0018
	17	53.4	404	620	6.87	0.07	0.0879	0.0018
	18	36.0	339	352	8.27	0.08	0.0993	0.0020
	19	41.3	404	441	7.78	0.08	0.0914	0.0019
	20	51.1	415	504	7.26	0.08	0.0897	0.0018
	21	15.1	381	165	9.00	0.09	0.0921	0.0019
	22	40.9	419	371	8.16	0.10	0.0955	0.0024
	23	51.0	425	602	6.62	0.07	0.0857	0.0017
	24	55.1	497	652	7.04	0.07	0.0846	0.0017
	25	50.5	401	473	7.54	0.09	0.0920	0.0019
P6814B								
	1	8.8	15	44	3.89	0.08	0.6972	0.0145
	2	12.5	12	46	2.57	0.07	0.7770	0.0160
	3	13.3	16	46	3.10	0.07	0.7451	0.0155
	4	16.4	70	102	6.69	0.11	0.2527	0.0053
	5	9.3	11	47	2.94	0.09	0.7378	0.0153
	6	8.6	62	82	9.97	0.14	0.2585	0.0054
	7	26.4	68	66	5.03	0.09	0.4387	0.0091
	8	14.9	69	84	6.51	0.16	0.2748	0.0057
	9	9.4	46	78	7.91	0.14	0.3258	0.0077
	10	17.6	83	95	6.64	0.09	0.2503	0.0051
	11	12.0	70	83	7.99	0.09	0.2630	0.0054
	12	23.3	84	155	7.22	0.09	0.2212	0.0046
	13	33.7	89	180	6.26	0.07	0.2323	0.0049
	14	5.5	8	46	3.66	0.07	0.6771	0.0141
	15	13.5	13	46	2.52	0.04	0.7806	0.0160
	16	14.9	10	46	1.88	0.04	0.8200	0.0167
	17	14.9	54	63	6.29	0.11	0.4059	0.0087
	18	8.5	19	46	4.74	0.08	0.6422	0.0134
P6815E								
	1	2.8	16	46	4.38	0.09	0.6816	0.0140
	2	3.2	5	48	1.50	0.04	0.8327	0.0171
	3	4.9	12	48	2.29	0.06	0.7853	0.0164
	4	2.1	10	46	3.74	0.09	0.7045	0.0148
	5	2.9	19	60	4.25	0.10	0.5017	0.0106
	6	4.4	57	76	5.77	0.11	0.2953	0.0067
	7	2.6	3	49	1.01	0.04	0.8436	0.0177
	8	3.7	42	100	5.72	0.12	0.2576	0.0054
	9	2.3	7	48	2.67	0.09	0.7451	0.0159
	10	4.1	11	48	2.41	0.05	0.7987	0.0163
	11	3.9	12	47	2.77	0.06	0.7839	0.0161
	12	3.1	13	46	3.51	0.06	0.7450	0.0153
	13	3.7	13	48	3.00	0.07	0.7726	0.0158
	14	2.7	15	51	4.37	0.09	0.6611	0.0136
	15	3.7	69	96	7.29	0.12	0.2213	0.0046
	16	4.6	84	110	7.14	0.13	0.2062	0.0043
	17	6.9	68	73	5.34	0.10	0.3524	0.0077
	18	5.1	16	48	2.84	0.06	0.7829	0.0160
	19	3.3	18	49	4.29	0.07	0.6928	0.0144
	20	6.1	14	48	2.11	0.04	0.8237	0.0168
	21	6.0	12	49	1.84	0.03	0.8404	0.0171

	22	3.3	15	49	3.73	0.07	0.7305	0.0149
	23	4.5	14	48	2.69	0.05	0.7878	0.0160
	24	2.8	11	50	3.15	0.07	0.7443	0.0154
	25	3.5	17	47	3.91	0.08	0.7209	0.0147
	26	5.3	18	48	3.04	0.09	0.7657	0.0159
	27	4.2	19	48	3.71	0.09	0.7336	0.0150
	28	6.0	21	47	3.01	0.05	0.7755	0.0158
P6815F2								
	1	1.4	228	43	15.00	0.14	0.1099	0.0023
	2	1.6	252	52	15.11	0.14	0.1139	0.0024
	3	1.6	153	45	14.13	0.12	0.1587	0.0034
	4	1.5	194	55	14.93	0.20	0.1279	0.0028
	5	1.6	192	49	14.75	0.29	0.1381	0.0038
	6	2.1	63	42	11.26	0.16	0.3301	0.0076
	7	2.2	63	45	11.03	0.13	0.3361	0.0075
	8	1.4	154	39	14.38	0.27	0.1451	0.0035
	9	1.4	125	72	13.88	0.27	0.1704	0.0040
	10	1.4	140	45	14.17	0.22	0.1564	0.0039
	11	1.4	99	50	13.74	0.16	0.1888	0.0046
	12	2.4	17	42	7.11	0.36	0.5347	0.0210
	13	2.7	16	36	5.10	0.14	0.6634	0.0151
	14	2.9	12	42	5.07	0.12	0.6788	0.0148
P6815G1								
	1	1.0	195	51	14.64	0.25	0.1081	0.0022
	2	1.2	272	53	15.04	0.25	0.1007	0.0021
	3	1.0	175	51	14.75	0.21	0.1153	0.0024
	4	1.0	194	51	14.85	0.22	0.1078	0.0022
	5	1.0	125	49	14.04	0.21	0.1352	0.0029
	6	1.0	130	47	14.17	0.23	0.1369	0.0029
	7	0.9	156	50	14.46	0.19	0.1210	0.0025
	8	1.0	123	48	14.12	0.22	0.1451	0.0030
	9	0.9	96	46	13.86	0.28	0.1571	0.0033
	10	0.9	92	47	13.76	0.20	0.1526	0.0033
	11	0.9	114	47	14.00	0.24	0.1425	0.0029
	12	0.9	93	48	13.68	0.22	0.1533	0.0033
	13	1.9	152	47	13.25	0.20	0.1859	0.0039
	14	1.0	148	48	14.10	0.25	0.1309	0.0027
	15	2.1	143	48	13.01	0.22	0.2058	0.0042
	16	1.0	150	49	14.32	0.25	0.1276	0.0027
	17	1.0	143	49	14.37	0.24	0.1278	0.0027
	18	1.0	141	48	14.24	0.21	0.1306	0.0027
	19	1.2	154	49	14.13	0.19	0.1349	0.0028
	20	0.9	141	49	14.33	0.27	0.1277	0.0027
	21	1.0	74	48	13.21	0.22	0.1871	0.0040
	22	0.9	83	47	13.54	0.24	0.1700	0.0036
	23	0.9	140	47	14.39	0.25	0.1265	0.0027
	24	2.0	137	47	13.14	0.21	0.1990	0.0041
	25	0.9	104	49	14.09	0.24	0.1495	0.0032
	26	1.0	84	46	13.34	0.26	0.1719	0.0036
	27	1.1	122	48	13.91	0.23	0.1496	0.0031
	28	1.2	121	47	13.87	0.26	0.1592	0.0034
	29	0.9	75	47	13.21	0.20	0.1787	0.0038

	30	1.1	155	50	14.46	0.27	0.1320	0.0027
	31	1.0	134	49	14.06	0.26	0.1333	0.0027
	32	1.0	115	48	14.25	0.25	0.1446	0.0030
	33	1.1	157	51	14.21	0.28	0.1300	0.0027
	34	1.5	146	48	13.54	0.25	0.1588	0.0039
P6817B1								
	1	7.4	107	69	13.32	0.55	0.2333	0.0054
	2	11.1	210	60	13.40	0.47	0.1986	0.0041
	3	7.0	247	81	14.93	0.47	0.1265	0.0042
	4	8.4	122	69	13.23	0.45	0.2336	0.0070
	5	6.3	68	51	11.09	0.65	0.3086	0.0085
	6	9.7	37	52	7.34	0.32	0.5303	0.0122
	7	7.2	64	56	10.72	0.51	0.3500	0.0110
	8	13.1	41	50	6.13	0.49	0.5862	0.0134
	9	7.7	29	64	7.13	0.27	0.5514	0.0132
	10	12.4	63	55	8.35	0.22	0.4787	0.0104
	11	6.9	213	70	14.22	0.17	0.1511	0.0030
P6818A1								
	1	20.8	365	777	3.64	0.04	0.1123	0.0023
	2	9.4	203	314	3.72	0.03	0.1203	0.0024
	3	32.6	512	363	4.25	0.04	0.1258	0.0025
	4	8.5	166	137	4.01	0.04	0.1538	0.0031
	5	18.8	270	271	3.89	0.04	0.1376	0.0028
	6	24.6	444	227	4.37	0.04	0.1410	0.0028
	7	1.7	68	66	4.06	0.04	0.1535	0.0032
	8	39.4	551	939	3.72	0.04	0.1124	0.0023
	9	23.8	452	194	4.56	0.05	0.1457	0.0030
	10	26.3	521	355	4.06	0.06	0.1213	0.0024
	11	30.2	483	357	4.23	0.06	0.1278	0.0026
	12	34.1	527	547	3.98	0.05	0.1186	0.0024
	13	29.4	513	275	4.27	0.05	0.1345	0.0027
	14	54.2	557	1057	3.83	0.05	0.1159	0.0023
	15	15.7	303	425	3.77	0.05	0.1194	0.0024
	16	12.3	197	93	4.69	0.07	0.2189	0.0048
	17	19.4	370	189	5.63	0.07	0.1513	0.0030
	18	26.6	475	204	4.86	0.05	0.1471	0.0030
	19	26.1	405	456	3.85	0.04	0.1225	0.0025
	20	16.1	343	329	3.64	0.05	0.1220	0.0025
	21	9.9	155	202	3.67	0.05	0.1427	0.0029
	22	13.9	250	312	3.72	0.04	0.1248	0.0025
	23	13.9	236	401	3.68	0.05	0.1205	0.0024
	24	22.1	359	577	3.62	0.05	0.1160	0.0023
	25	32.8	557	618	4.03	0.05	0.1153	0.0023
	26	29.9	544	474	4.31	0.05	0.1173	0.0024
	27	20.0	357	297	3.96	0.05	0.1288	0.0028
	28	1.3	4	48	2.43	0.11	0.7683	0.0169
	29	21.6	323	576	3.75	0.06	0.1171	0.0024
	30	2.2	20	58	3.88	0.10	0.3510	0.0094
	31	31.4	372	1171	3.54	0.07	0.1127	0.0023
	32	22.6	233	881	3.41	0.07	0.1172	0.0024
	33	38.1	361	1738	3.52	0.06	0.1130	0.0023
	34	14.3	388	749	3.45	0.07	0.1107	0.0022

	35	7.3	311	127	3.88	0.07	0.1284	0.0026
P6821A1								
	1	7.3	221	57	15.00	0.35	0.0992	0.0021
	2	9.9	175	46	15.08	0.35	0.0959	0.0021
	3	6.6	187	54	15.34	0.38	0.0905	0.0019
	4	4.0	105	47	15.24	0.37	0.0901	0.0020
	5	3.7	110	47	15.49	0.32	0.0869	0.0019
	6	4.1	163	52	15.04	0.37	0.1051	0.0024
	7	4.6	190	54	15.45	0.31	0.0880	0.0019
	8	4.1	146	49	14.67	0.38	0.1189	0.0026
	9	5.7	167	53	15.29	0.32	0.1002	0.0022
	10	5.4	22	44	15.47	0.37	0.0918	0.0019
	11	6.0	34	46	14.70	0.37	0.1189	0.0026
	12	5.3	57	50	3.53	0.10	0.7111	0.0143
	13	3.9	31	48	14.38	0.36	0.1268	0.0029
	14	9.0	51	45	15.18	0.34	0.0931	0.0020
	15	7.0	256	71	14.76	0.32	0.1115	0.0024
	16	10.1	329	65	14.55	0.36	0.1198	0.0027
	17	8.9	288	59	14.62	0.38	0.1116	0.0024
	18	9.3	215	75	14.43	0.38	0.1296	0.0034
	19	9.7	278	60	14.47	0.36	0.1252	0.0027
	20	11.3	383	68	14.69	0.40	0.1042	0.0023
	21	8.5	286	77	14.74	0.37	0.1062	0.0023
	22	9.5	401	82	7.21	0.13	0.5082	0.0102
	23	7.3	303	68	8.89	0.20	0.4315	0.0089
	24	7.7	173	71	7.14	0.14	0.5153	0.0105
	25	7.8	265	64	6.23	0.14	0.5621	0.0114
	26	7.8	324	64	5.99	0.10	0.5777	0.0117
	27	8.9	268	59	6.45	0.14	0.5505	0.0112
	28	9.1	363	70	7.82	0.17	0.4861	0.0098
P6824F1								
	1	0.9	140	72	15.19	0.15	0.0910	0.0021
	2	1.1	87	93	14.21	0.43	0.1503	0.0043
	3	1.1	87	3	14.12	0.28	0.1559	0.0037
	4	3.6	300	50	13.83	0.10	0.1725	0.0036
	5	1.0	88	44	13.86	0.14	0.1774	0.0041
	6	1.4	99	54	13.46	0.21	0.1848	0.0040
	7	1.0	80	61	13.60	0.19	0.1849	0.0049
	8	2.1	150	48	13.35	0.16	0.1939	0.0042
	9	1.3	11	42	6.95	0.32	0.6138	0.0176
	10	1.4	11	44	6.79	0.23	0.6211	0.0151
	11	1.1	7	62	5.53	0.27	0.6949	0.0194
	12	2.7	6	42	2.52	0.12	0.8941	0.0213
	13	2.8	6	43	2.47	0.10	0.9092	0.0195
	14	2.6	6	42	2.45	0.12	0.9094	0.0197
	15	2.3	5	44	1.91	0.41	0.9344	0.0406
P6826I1								
	1	1.7	631	88	15.42	0.40	0.0728	0.0015
	2	1.7	774	95	15.28	0.33	0.0692	0.0014
	3	1.8	676	95	15.47	0.35	0.0718	0.0015
	4	1.5	533	69	15.20	0.30	0.0770	0.0016
	5	1.8	838	91	15.61	0.36	0.0699	0.0014

	6	1.7	723	99	15.44	0.42	0.0704	0.0014
	7	1.7	587	97	15.47	0.32	0.0736	0.0015
	8	1.7	608	87	15.31	0.28	0.0732	0.0015
	9	1.7	595	92	15.03	0.37	0.0733	0.0015
	10	1.8	594	95	15.22	0.35	0.0738	0.0015
	11	1.9	798	99	15.32	0.31	0.0701	0.0014
	12	1.7	577	95	15.27	0.34	0.0736	0.0015
	13	2.1	1229	103	15.52	0.38	0.0659	0.0013
	14	1.8	656	102	15.31	0.36	0.0722	0.0015
	15	1.9	1141	100	15.38	0.36	0.0660	0.0013
	16	1.3	362	74	15.24	0.36	0.0847	0.0017
	17	1.8	803	98	15.54	0.40	0.0697	0.0014
	18	1.8	604	96	15.42	0.36	0.0736	0.0015
	19	1.8	596	98	15.18	0.40	0.0739	0.0015
	20	1.7	589	103	15.45	0.35	0.0736	0.0015
	21	1.8	641	97	15.54	0.36	0.0732	0.0015
	22	1.7	585	101	15.49	0.41	0.0742	0.0015
	23	1.7	581	98	15.34	0.36	0.0738	0.0015
	24	1.3	469	66	15.35	0.43	0.0795	0.0016
	25	1.7	611	102	15.39	0.34	0.0726	0.0015
	26	1.7	648	98	15.48	0.36	0.0720	0.0015
	27	1.7	612	102	15.41	0.40	0.0730	0.0015
	28	1.7	603	96	15.52	0.39	0.0725	0.0015
	29	1.9	760	99	15.13	0.34	0.0706	0.0014
	30	1.7	630	96	15.16	0.34	0.0723	0.0015
	31	1.7	648	101	15.54	0.38	0.0721	0.0015
	32	1.7	692	98	15.25	0.39	0.0709	0.0014
	33	1.8	740	101	15.27	0.33	0.0700	0.0014
	34	1.4	459	80	14.99	0.37	0.0778	0.0016
	35	1.8	756	96	15.10	0.39	0.0705	0.0014
R9823A1								
	1	5.8	17	41	5.70	0.09	0.5863	0.0124
	2	6.3	19	43	6.03	0.10	0.5770	0.0123
	3	9.8	29	42	6.00	0.10	0.5864	0.0125
	4	10.3	29	43	5.75	0.08	0.5977	0.0124
	5	10.5	38	44	6.82	0.09	0.5389	0.0111
	6	9.3	28	44	6.14	0.10	0.5828	0.0123
	7	8.7	36	44	7.34	0.12	0.5153	0.0107
	8	3.6	62	53	12.73	0.30	0.2324	0.0056
	9	3.9	124	54	14.13	0.21	0.1606	0.0034
	10	4.3	99	52	13.25	0.07	0.2014	0.0042
R9824B4								
	1	1.9	163	45	14.22	0.20	0.1652	0.0034
	2	1.9	96	43	12.85	0.18	0.2303	0.0051
	3	1.9	153	47	14.17	0.16	0.1637	0.0034
	4	3.2	24	42	5.77	0.05	0.6262	0.0131
	5	2.6	5	42	1.88	0.05	0.8214	0.0176
	6	8.5	189	48	10.01	0.15	0.3972	0.0080
	7	7.6	187	48	10.35	0.15	0.3728	0.0075
	8	7.9	285	48	11.52	0.16	0.2984	0.0060
	9	9.5	223	48	10.12	0.14	0.3828	0.0077
	10	8.9	197	48	10.13	0.15	0.3936	0.0080

	11	11.2	216	48	9.43	0.13	0.4293	0.0087
	12	2.7	4	42	1.54	0.04	0.8481	0.0176
	13	2.4	15	44	4.92	0.09	0.6613	0.0137
	14	2.0	69	45	11.33	0.23	0.3102	0.0067
R9825E1								
	1	13.0	34	52	5.85	0.15	0.6045	0.0129
	2	14.8	47	52	6.50	0.15	0.5727	0.0122
	3	13.4	38	50	6.10	0.18	0.5939	0.0131
	4	4.0	34	48	11.23	0.29	0.3472	0.0079
	5	12.7	33	43	5.69	0.14	0.6310	0.0143
	6	6.1	68	40	11.79	0.21	0.3089	0.0067
	7	4.6	40	41	11.23	0.27	0.3279	0.0075
	8	4.8	37	38	10.22	0.21	0.3882	0.0085
	9	6.1	236	54	15.06	0.24	0.1290	0.0028
	10	6.5	330	62	15.43	0.30	0.1090	0.0023
	11	6.9	227	55	14.38	0.30	0.1456	0.0038
	12	5.8	238	59	15.05	0.30	0.1241	0.0026
	13	4.8	126	60	14.19	0.28	0.1602	0.0037
	14	5.9	168	66	14.69	0.30	0.1503	0.0032
	15	7.0	149	53	13.56	0.26	0.2069	0.0047
	16	12.8	243	52	13.15	0.32	0.2239	0.0083
	17	15.7	154	50	11.20	0.25	0.3434	0.0092
	18	7.4	313	59	15.08	0.31	0.1334	0.0036
	19	6.4	373	66	15.49	0.34	0.1042	0.0022
	20	6.2	357	61	15.30	0.28	0.1071	0.0023
	21	7.5	371	61	15.11	0.32	0.1162	0.0025
	22	5.9	341	56	15.20	0.36	0.1111	0.0024
	23	7.5	331	60	15.04	0.32	0.1240	0.0027
	24	5.8	156	70	14.70	0.32	0.1458	0.0032
	25	6.3	244	71	15.27	0.27	0.1176	0.0025
	26	6.9	312	77	15.37	0.35	0.1085	0.0023
	27	6.7	310	71	15.44	0.29	0.1120	0.0024
	28	12.7	121	54	11.35	0.33	0.3201	0.0139
	29	6.5	225	66	14.84	0.31	0.1329	0.0028
	30	24.0	62	48	5.72	0.14	0.6422	0.0145
	31	10.9	60	48	8.83	0.18	0.4603	0.0097
	32	6.3	211	67	14.71	0.29	0.1353	0.0029
R9828B2								
	1	1.8	79	44	12.15	0.24	0.2790	0.0063
	2	2.6	140	43	12.77	0.12	0.2438	0.0050
	3	3.9	143	43	11.54	0.22	0.3054	0.0065
	4	2.8	125	45	12.33	0.18	0.2751	0.0058
	5	1.6	82	44	12.59	0.11	0.2550	0.0052
	6	2.9	133	43	12.38	0.15	0.2692	0.0058
	7	2.5	220	43	13.78	0.16	0.1839	0.0038
	8	2.6	146	43	12.82	0.15	0.2357	0.0050
	9	2.1	193	44	13.99	0.20	0.1757	0.0039
	10	2.0	172	43	13.97	0.18	0.1833	0.0038
	11	6.0	156	44	10.49	0.11	0.3799	0.0082
	12	1.9	173	43	13.80	0.16	0.1774	0.0037
	13	2.0	172	43	13.69	0.18	0.1831	0.0038
	14	4.0	265	49	13.45	0.15	0.2037	0.0047

	15	5.2	184	46	11.56	0.22	0.2969	0.0062
	16	4.9	310	47	13.23	0.17	0.2169	0.0051
	17	3.0	353	52	14.70	0.18	0.1423	0.0030
	18	2.6	340	50	14.78	0.15	0.1346	0.0028
	19	3.1	317	47	13.99	0.22	0.1586	0.0032
	20	2.7	94	46	11.57	0.13	0.3088	0.0065
	21	3.2	236	54	13.88	0.17	0.1796	0.0038
	22	6.9	433	47	13.17	0.38	0.2163	0.0046
	23	2.9	314	52	14.36	0.18	0.1509	0.0033
R9828C8								
	1	0.7	6	55	10.40	0.71	0.3836	0.0162
	2	0.6	7	43	11.28	0.53	0.2926	0.0092
	3	0.7	10	52	12.96	0.40	0.2376	0.0076
	4	3.7	49	58	11.87	0.23	0.2743	0.0078
	5	7.5	14	37	4.58	0.14	0.6453	0.0139
	6	6.3	17	37	5.66	0.14	0.5901	0.0132
	7	0.8	12	14	12.31	0.40	0.2529	0.0076
	8	7.4	21	41	5.88	0.17	0.5906	0.0143
	9	1.9	12	205	9.03	0.24	0.4102	0.0098
	10	0.9	19	-40	13.65	0.32	0.1948	0.0059
	11	3.5	6	46	1.62	0.09	0.7901	0.0172
	12	4.1	8	49	1.64	0.08	0.7925	0.0168
	13	0.3	22	32	13.59	0.33	0.1859	0.0048
	14	5.5	18	50	2.88	0.08	0.7261	0.0151
	15	0.3	19	29	13.28	0.41	0.2000	0.0068
	16	0.6	15	38	10.05	0.29	0.3659	0.0108
	17	1.2	17	45	8.03	0.19	0.4784	0.0109
	18	1.3	34	44	10.39	0.20	0.3514	0.0077
	19	2.0	73	48	11.44	0.19	0.2951	0.0062
	20	0.8	36	36	14.74	0.38	0.1196	0.0033
	21	1.5	56	77	14.45	0.32	0.1305	0.0035
	22	2.0	30	55	12.37	0.34	0.2507	0.0069
	23	9.6	20	44	4.75	0.11	0.6505	0.0135
	24	0.7	5	-26	9.69	0.69	0.3479	0.0148
	25	22.4	7	55	0.99	0.05	0.8477	0.0175
	26	29.8	13	52	1.25	0.09	0.8342	0.0176
	27	1.0	5	38	3.85	0.23	0.7002	0.0186
R9828C11								
	1	2.5	55	78	14.65	0.21	0.1590	0.0037
	2	2.5	62	59	14.74	0.21	0.1494	0.0035
	3	2.7	7	41	5.45	0.25	0.6689	0.0186
	4	1.8	7	24	7.10	0.29	0.5540	0.0140
	5	1.6	8	52	8.47	0.52	0.5046	0.0157
R9829C3								
	1	2.5	151	50	13.06	0.19	0.2220	0.0050
	2	4.0	68	49	8.37	0.13	0.4545	0.0093
	3	1.9	95	53	12.59	0.19	0.2436	0.0052
	4	1.9	112	46	12.73	0.20	0.2245	0.0047
	5	2.3	83	50	11.29	0.23	0.2931	0.0061
	6	3.8	47	49	7.19	0.15	0.5174	0.0108
	7	2.6	66	49	9.97	0.18	0.3646	0.0076
	8	2.1	72	46	11.25	0.20	0.3067	0.0072

	9	1.8	61	49	11.07	0.21	0.3124	0.0066
	10	2.8	84	50	10.62	0.19	0.3359	0.0071
	11	1.9	50	47	10.16	0.16	0.3529	0.0074
	12	3.0	68	48	9.60	0.15	0.3912	0.0081
	13	4.5	93	48	9.21	0.15	0.4091	0.0083
	14	4.3	91	50	9.23	0.16	0.4071	0.0084
	15	7.1	40	49	4.27	0.08	0.6695	0.0136
	16	3.7	18	49	3.73	0.08	0.6994	0.0144
	17	3.7	29	47	5.37	0.09	0.6062	0.0125
	18	1.7	52	48	10.69	0.20	0.3345	0.0071
	19	4.2	46	49	6.72	0.12	0.5446	0.0111
	20	4.1	43	49	6.58	0.15	0.5518	0.0113
	21	2.7	36	50	7.42	0.16	0.5030	0.0106
	22	1.9	95	51	12.14	0.21	0.2424	0.0050
	23	1.8	55	49	10.69	0.18	0.3380	0.0071
	24	1.9	61	51	10.92	0.22	0.3164	0.0066
	25	3.2	30	47	6.04	0.10	0.5733	0.0118
	26	10.1	82	48	5.42	0.10	0.6017	0.0122
	27	3.5	30	47	5.70	0.10	0.5978	0.0122
	28	2.5	62	48	9.87	0.16	0.3697	0.0079
	29	3.1	57	48	8.78	0.17	0.4317	0.0090
	30	2.3	115	50	12.36	0.27	0.2443	0.0053
	31	3.1	60	46	8.96	0.19	0.4292	0.0089
	32	2.6	92	47	11.08	0.22	0.3028	0.0070
R1617B1								
	1	1.6	229	53	14.94	0.20	0.1194	0.0024
	2	1.2	160	44	14.74	0.21	0.1307	0.0027
	3	1.7	174	45	14.50	0.39	0.1489	0.0031
	4	2.1	175	61	14.15	0.28	0.1546	0.0032
	5	1.8	133	62	13.93	0.24	0.1624	0.0034
	6	1.7	137	48	13.95	0.32	0.1796	0.0037
	7	3.0	224	49	13.81	0.21	0.1842	0.0040
	8	1.8	132	43	13.35	0.27	0.1881	0.0040
	9	1.8	128	45	13.39	0.29	0.1939	0.0041
	10	3.0	173	53	13.34	0.17	0.1999	0.0043
	11	1.9	99	54	13.20	0.29	0.2161	0.0046
	12	1.8	104	46	13.15	0.33	0.2167	0.0046
	13	1.7	101	46	12.77	0.31	0.2177	0.0048
	14	1.8	98	45	12.66	0.26	0.2247	0.0047
	15	3.6	173	51	12.70	0.31	0.2318	0.0048
	16	3.5	186	46	12.68	0.20	0.2333	0.0054
	17	1.8	82	45	12.09	0.27	0.2538	0.0054
	18	3.3	147	42	12.46	0.42	0.2686	0.0058
	19	1.6	53	48	11.41	0.24	0.3069	0.0065
	20	3.9	118	44	10.71	0.22	0.3261	0.0067
	21	1.9	54	40	10.46	0.23	0.3478	0.0081
	22	2.0	48	44	9.73	0.21	0.3873	0.0080
	23	3.1	68	44	9.63	0.24	0.4003	0.0100
	24	2.1	31	43	8.00	0.14	0.4786	0.0101
	25	4.8	72	42	7.96	0.27	0.4889	0.0103
	26	3.6	45	44	7.66	0.15	0.5108	0.0106
	27	3.4	43	41	7.34	0.14	0.5213	0.0113

	28	4.7	52	44	7.04	0.24	0.5366	0.0130
R3704A6								
	1	2.4	1089	105	15.71	0.30	0.0667	0.0014
	2	2.1	1113	97	15.96	0.29	0.0657	0.0013
	3	2.4	984	110	15.64	0.32	0.0671	0.0014
	4	2.3	1103	96	15.70	0.39	0.0660	0.0013
	5	2.2	1086	92	15.57	0.37	0.0662	0.0013
	6	2.3	974	82	15.81	0.34	0.0674	0.0014
	7	1.5	216	53	14.58	0.34	0.1112	0.0026
	8	1.4	197	54	14.37	0.37	0.1190	0.0030
	9	5.8	835	160	15.50	0.35	0.0788	0.0016
	10	2.4	827	200	15.66	0.42	0.0690	0.0014
	11	2.1	816	119	15.83	0.40	0.0695	0.0014
	12	2.6	853	130	15.69	0.31	0.0688	0.0014
	13	2.4	849	105	15.64	0.32	0.0694	0.0014
	14	2.3	844	96	15.69	0.38	0.0695	0.0014
	15	2.5	909	86	15.81	0.31	0.0681	0.0014
	16	2.4	1005	87	15.78	0.32	0.0675	0.0014
	17	1.5	311	61	15.78	0.36	0.0863	0.0018
	18	1.7	396	65	15.60	0.38	0.0814	0.0017
	19	1.4	222	60	15.29	0.37	0.0969	0.0020
	20	1.2	132	65	15.07	0.32	0.1194	0.0025
	21	1.4	158	72	14.89	0.32	0.1092	0.0023
	22	2.1	386	92	15.67	0.38	0.0833	0.0017
	23	1.6	165	89	14.95	0.33	0.1181	0.0025
	24	2.9	846	159	15.75	0.36	0.0685	0.0014
	25	2.4	644	109	15.72	0.27	0.0741	0.0015
	26	2.3	508	110	15.65	0.27	0.0760	0.0016
	27	3.2	867	123	15.62	0.28	0.0714	0.0015
	28	3.0	830	129	15.83	0.31	0.0691	0.0014
	29	3.1	846	134	15.75	0.31	0.0693	0.0014
Y0814E3								
	1	32.8	269	465	6.08	0.07	0.1201	0.0026
	2	29.8	429	728	6.26	0.10	0.0933	0.0020
	3	33.2	493	988	6.40	0.07	0.0892	0.0019
	4	31.0	472	844	6.64	0.09	0.0913	0.0019
	5	28.1	387	678	6.29	0.05	0.0961	0.0020
	6	5.0	265	102	6.22	0.09	0.1039	0.0022
	7	4.4	296	147	6.22	0.08	0.0959	0.0020
	8	7.8	284	220	6.10	0.06	0.0989	0.0021
	9	6.3	224	144	6.26	0.08	0.1128	0.0024
	10	4.1	209	90	6.61	0.07	0.1206	0.0026
	11	25.5	226	471	6.45	0.06	0.1147	0.0025
	12	26.7	203	741	6.11	0.11	0.1178	0.0030
	13	34.0	385	824	6.69	0.08	0.1013	0.0021
	14	32.9	372	1076	6.32	0.07	0.0928	0.0020
	15	30.3	286	1042	5.94	0.10	0.1026	0.0022
	16	37.9	285	726	6.24	0.08	0.1026	0.0022
	17	44.3	414	1356	6.30	0.06	0.0941	0.0020
	18	49.0	494	991	6.45	0.08	0.0990	0.0022
	19	45.0	427	1022	6.55	0.06	0.0995	0.0021
	20	39.3	449	1190	6.59	0.07	0.0940	0.0019

Y0820C2								
	1	8.8	12	45	3.52	0.06	0.5331	0.0112
	2	27.3	27	45	3.01	0.05	0.6524	0.0134
	3	10.8	20	46	2.90	0.05	0.6825	0.0143
	4	32.0	40	45	4.03	0.04	0.6624	0.0133
	5	26.9	23	45	2.75	0.03	0.6810	0.0139
	6	60.8	34	46	2.56	0.04	0.7229	0.0146
	7	14.7	19	44	3.04	0.04	0.6723	0.0139
	8	51.4	91	44	2.81	0.06	0.5943	0.0123
	9	51.8	23	47	2.30	0.06	0.7380	0.0150
	10	10.2	13	43	4.00	0.08	0.5760	0.0125
	11	23.8	22	48	1.51	0.02	0.7842	0.0157
	12	7.5	15	40	4.10	0.11	0.3478	0.0075
	13	12.2	10	48	1.16	0.01	0.7884	0.0159
	14	24.9	29	45	2.34	0.04	0.6290	0.0132
	15	11.9	42	48	2.40	0.04	0.7302	0.0152
	16	23.9	24	48	2.13	0.05	0.7523	0.0168
Y0829J2								
	1	12.0	41	45	2.88	0.04	0.7477	0.0152
	2	14.1	60	46	3.27	0.06	0.7272	0.0151
	3	9.5	22	46	1.98	0.06	0.7982	0.0166
	4	6.1	5	45	0.73	0.03	0.8612	0.0182
	5	12.9	44	46	2.89	0.03	0.7451	0.0151
	6	36.3	259	47	5.04	0.05	0.6289	0.0126
	7	25.5	181	48	4.85	0.08	0.6381	0.0130
	8	27.1	165	47	4.58	0.10	0.6487	0.0132
	9	38.0	301	47	5.52	0.07	0.6067	0.0123
	10	35.2	251	47	4.89	0.08	0.6437	0.0130
	11	29.8	224	47	5.10	0.08	0.6306	0.0127
	12	34.8	291	47	5.42	0.08	0.6165	0.0124
	13	36.7	304	47	5.45	0.07	0.6109	0.0123
	14	15.6	69	47	3.44	0.03	0.7185	0.0145
	15	32.5	213	47	4.84	0.05	0.6431	0.0130
	16	39.7	304	47	5.40	0.06	0.6128	0.0123
	17	24.1	131	47	4.22	0.06	0.6754	0.0137
	18	24.0	138	47	4.32	0.04	0.6724	0.0135
	19	23.3	131	47	4.20	0.06	0.6824	0.0137
	20	22.8	109	47	3.58	0.06	0.7174	0.0146
Y1525A5								
	1	56.5	166	414	6.09	0.11	0.1275	0.0026
	2	50.0	155	388	6.03	0.12	0.1270	0.0026
	3	96.1	168	806	6.05	0.08	0.1185	0.0024
	4	103.7	145	733	5.98	0.10	0.1335	0.0027
	5	88.7	178	581	5.98	0.10	0.1288	0.0026
	6	49.8	153	467	6.04	0.11	0.1198	0.0024
	7	66.1	167	633	5.97	0.11	0.1167	0.0024
	8	61.9	178	498	5.97	0.11	0.1202	0.0024
	9	65.6	156	575	6.03	0.09	0.1236	0.0025
	10	33.4	73	244	5.99	0.12	0.1808	0.0037
	11	56.9	133	317	5.87	0.10	0.1544	0.0031
	12	92.3	157	407	5.97	0.09	0.1599	0.0034
	13	67.1	137	380	5.91	0.11	0.1510	0.0031

	14	53.3	176	463	6.19	0.12	0.1177	0.0024
	15	46.4	102	455	6.19	0.11	0.1360	0.0028
Y1606C1								
	1	10.5	4	38	1.61	0.35	0.8183	0.0558
	2	6.8	7	42	2.56	0.17	0.7631	0.0184
	3	17.9	7	42	1.17	0.06	0.8059	0.0171
	4	13.8	4	42	1.03	0.06	0.8187	0.0505
	5	55.2	112	49	4.83	0.11	0.5818	0.0123
	6	41.3	31	42	2.19	0.06	0.7936	0.0167
	7	25.4	76	125	5.58	0.13	0.2019	0.0046
	8	26.8	15	43	1.48	0.06	0.7625	0.0164
	9	134.0	39	43	0.92	0.02	0.8943	0.0181
	10	24.0	56	48	4.97	0.12	0.5720	0.0127
	11	12.2	19	43	3.54	0.17	0.7234	0.0172
	12	27.3	30	46	2.87	0.07	0.7100	0.0145
	13	30.3	72	88	5.05	0.12	0.3480	0.0087
	14	34.2	23	41	2.02	0.07	0.8198	0.0172
	15	16.4	41	98	4.88	0.12	0.2922	0.0064
	16	40.5	49	50	3.17	0.08	0.6741	0.0141
	17	25.7	169	110	6.18	0.18	0.1594	0.0037
	18	9.6	6	39	1.70	0.13	0.8319	0.0194
Y1607D9								
	1	16.5	64	237	5.30	0.06	0.2790	0.0057
	2	13.6	76	143	5.88	0.05	0.3305	0.0067
	3	1.2	5	41	3.63	0.09	0.7557	0.0161
	4	11.3	61	116	6.39	0.11	0.4352	0.0089
	5	2.8	37	45	7.63	0.16	0.5125	0.0107
Y1617G1								
	1	8.4	134	92	5.66	0.10	0.2117	0.0045
	2	22.6	145	49	4.45	0.08	0.6331	0.0127
	3	11.2	159	78	5.52	0.11	0.2564	0.0055
	4	13.5	169	66	5.43	0.07	0.3217	0.0065
	5	9.7	148	85	5.53	0.08	0.2325	0.0047
	6	2.7	11	49	3.17	0.07	0.6194	0.0132
	7	35.9	218	49	4.41	0.05	0.6680	0.0134
	8	35.0	192	50	4.11	0.06	0.6828	0.0137
	9	24.0	35	50	1.35	0.02	0.8144	0.0164
	10	34.4	198	50	4.22	0.05	0.6817	0.0137
	11	40.6	245	49	4.37	0.05	0.6691	0.0134
	12	14.8	19	50	1.19	0.02	0.8169	0.0165
	13	24.5	17	50	0.68	0.01	0.8523	0.0171
	14	25.3	30	50	1.11	0.02	0.8319	0.0167
	15	25.6	169	50	4.62	0.06	0.6467	0.0130
	16	24.8	109	50	3.46	0.05	0.7021	0.0141
	17	18.4	169	59	5.01	0.05	0.4455	0.0094
	18	7.0	141	85	5.90	0.08	0.2022	0.0043
	19	13.8	132	67	4.89	0.06	0.3715	0.0075
	20	15.5	106	59	4.14	0.08	0.4772	0.0100
	21	28.9	207	51	4.87	0.07	0.5965	0.0135
	22	14.1	119	63	4.53	0.07	0.4161	0.0103
	23	10.5	89	60	4.48	0.06	0.4162	0.0094
	24	20.6	21	50	0.96	0.02	0.8301	0.0167

25	17.8	24	50	1.25	0.02	0.8159	0.0164
26	19.6	96	50	3.79	0.06	0.6806	0.0138
27	9.0	22	50	2.14	0.05	0.7547	0.0153
28	25.1	17	51	0.65	0.01	0.8503	0.0171
29	20.7	15	51	0.67	0.01	0.8504	0.0171
30	3.2	3	50	0.83	0.04	0.8057	0.0165
31	22.1	34	51	1.39	0.02	0.8016	0.0161
32	21.9	97	51	3.52	0.07	0.7022	0.0141
33	38.6	253	50	4.63	0.09	0.6600	0.0133
34	43.1	160	51	2.98	0.05	0.7465	0.0150
35	31.5	188	51	4.29	0.06	0.6679	0.0134

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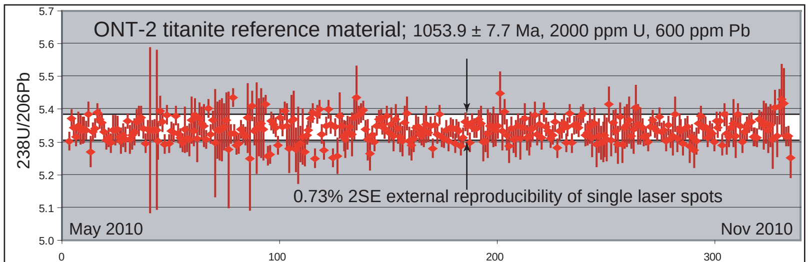


Figure A1. Six-month record of measured U/Pb ratio in ONT-2 reference material for 30 & 40 micron shots (n = 185). Each bar is in-run 2σ precision, and the 0.73% 2SE external reproducibility was computed by assigning sufficient external uncertainty to all data to form a single population. External reproducibility of 207/206 is 0.41% 2SE over the same period.

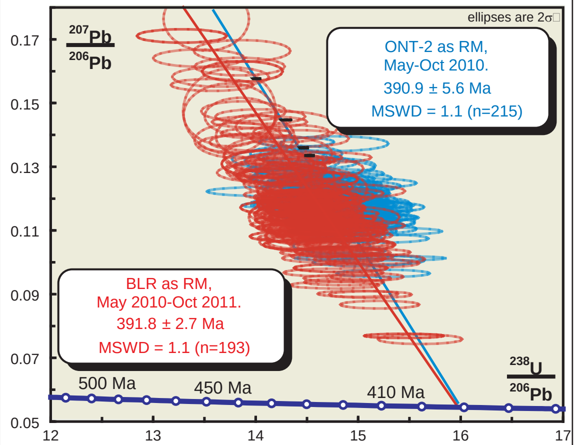


Figure A2. Isochron ages for secondary RM Y1710C5 determined from all long-term data relative to primary RMs Ontario-2 and BLR. TIMS age (from small black data) is 385.8 ± 3.3 Ma.

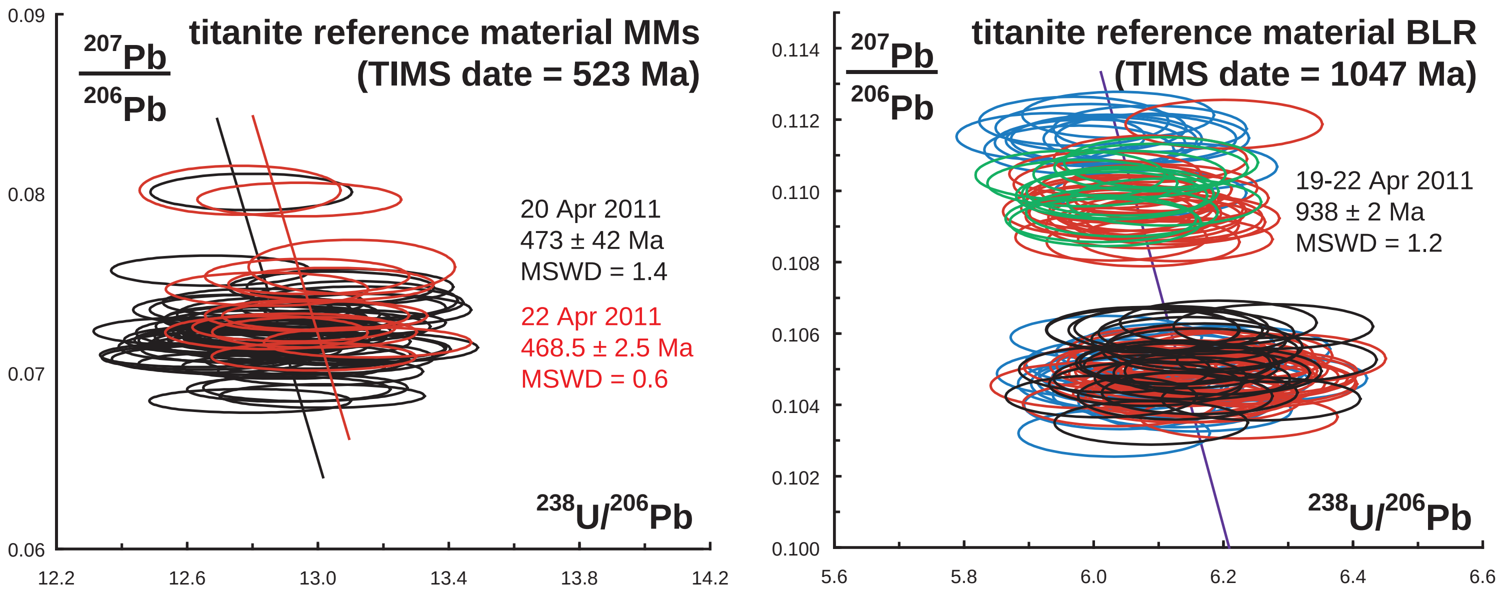
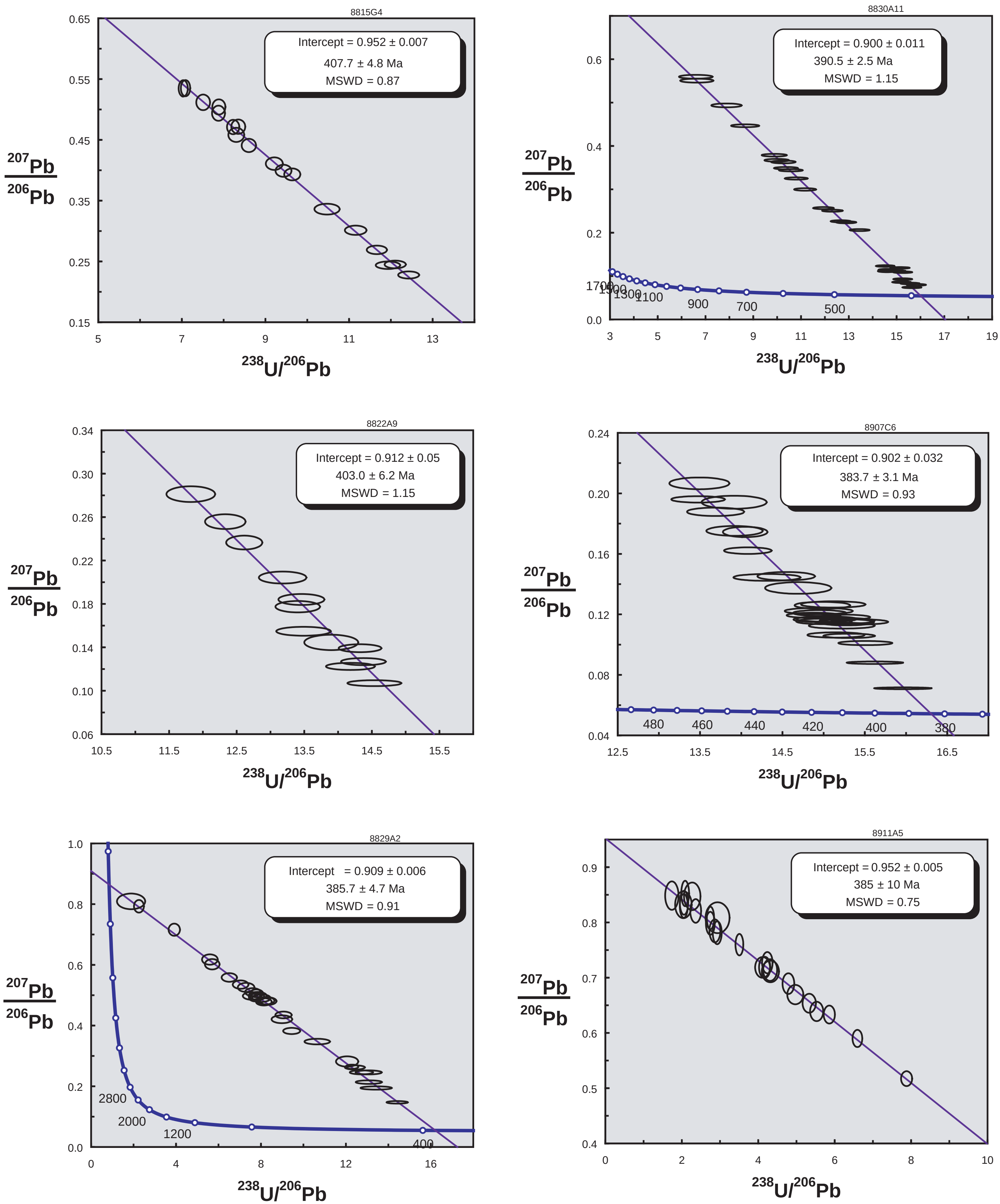
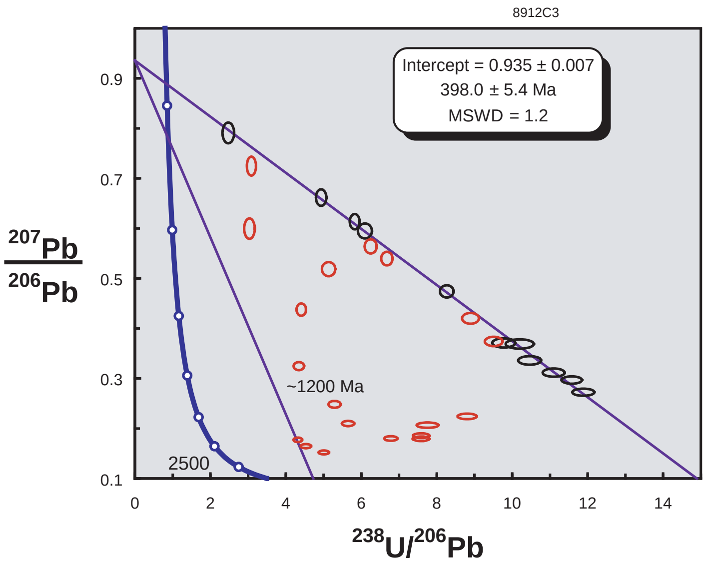
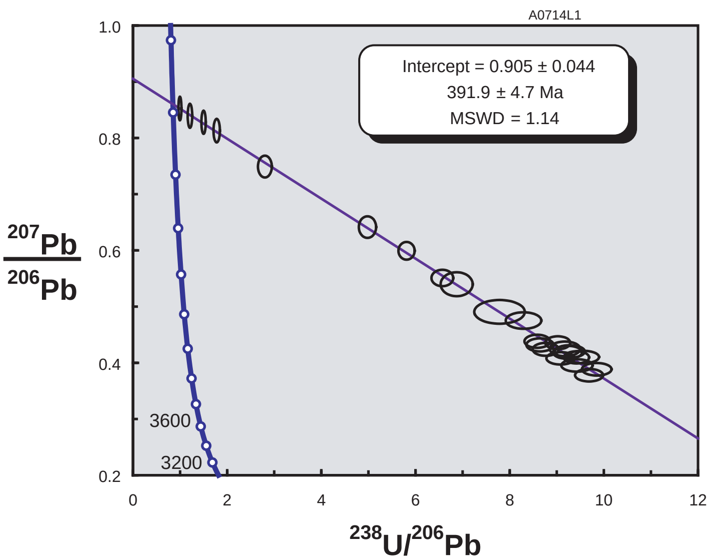


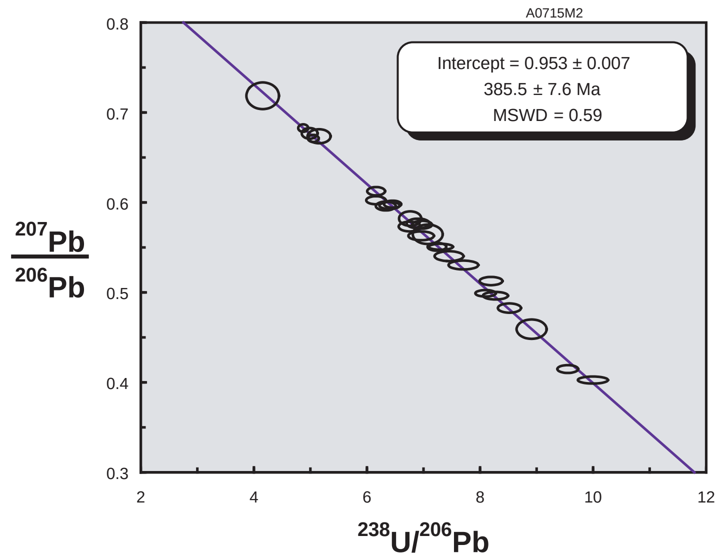
Figure A3. Isochrons for titanite RMs MMs and BLR determined by MC-ICPMS using *zircon* 91500 as the primary RM. Note that the ages are inaccurate by ~10%, whereas the dates determined using *titanite* as the primary RM are equivalent to the TIMS-determined date (Figure A2 and Table A6). Dates shown were determined using a common-Pb composition from the Stacey-Kramers model; removing this constraint makes no significant difference to the MMs date, but degrades the accuracy of the BLR date to 901 ± 22 Ma (MSWD = 1.2). Different colors indicate different days.

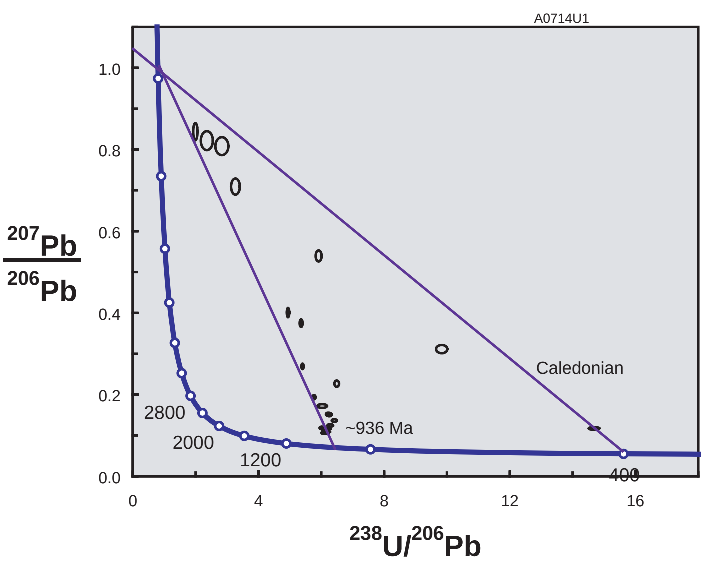
Figure 4a. Tera-Wasserburg diagrams and isochrons for all analyzed unknowns; not corrected for common Pb. Red data do not lie on the isochron shown and are a mixture of common Pb and radiogenic Pb older than the isochron. Samples with poorly defined 207Pb/206Pb intercepts were anchored to 0.912 ± 0.050 (see text). Age uncertainties are for the 95% confidence interval and include in-run and decay constant errors; the total uncertainty for any one date is 2%--8 Myr for a 400 Ma date.

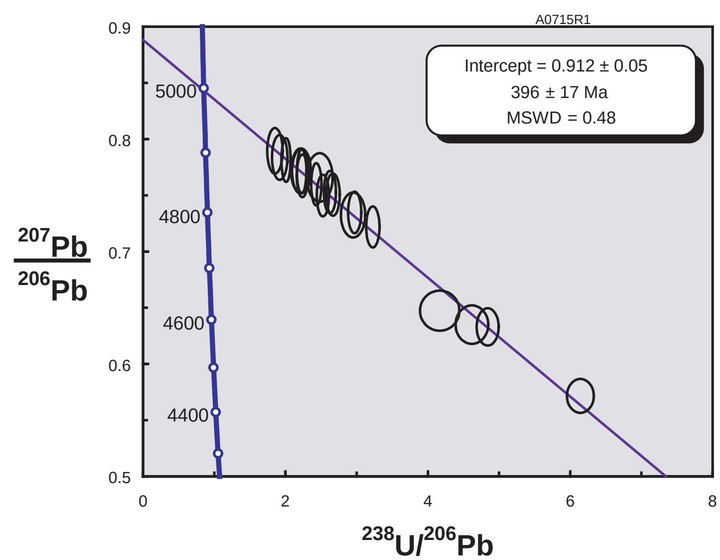


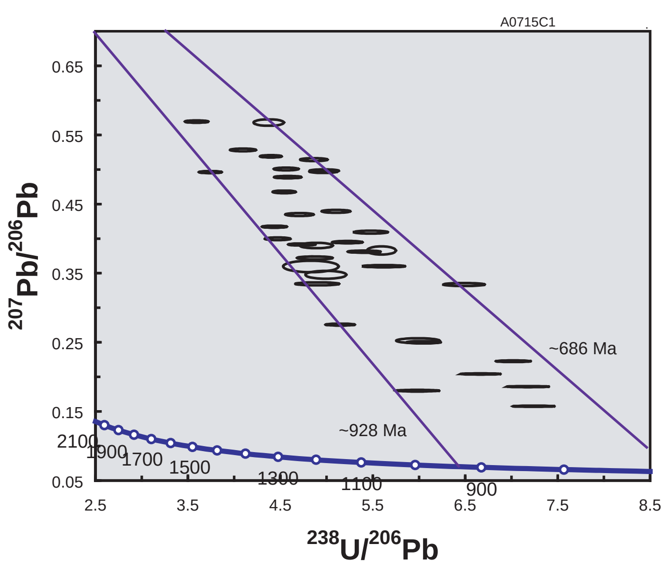

8912C3
Intercept = 0.935 ± 0.007
398.0 ± 5.4 Ma
MSWD = 1.2
~1200 Ma
2500
$^{207}Pb/^{206}Pb$
0.9
0.7
0.5
0.3
0.1
0
2
4
6
8
10
12
14
$^{238}U/^{206}Pb$

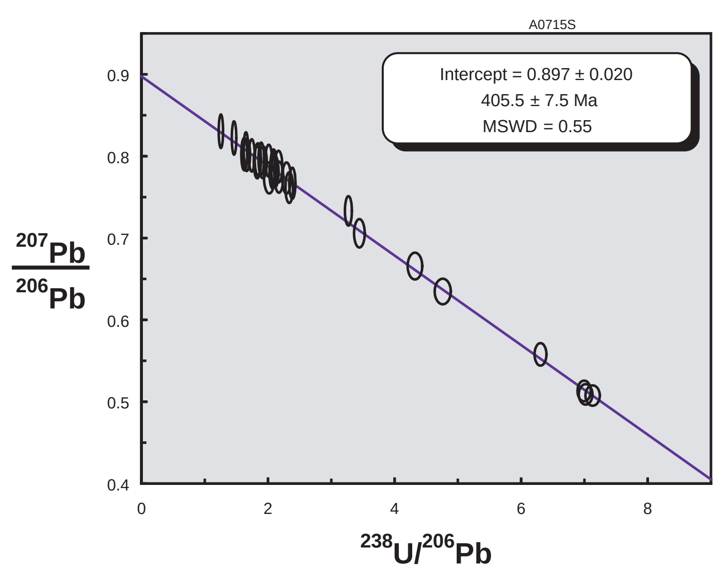

A0714L1
Intercept = 0.905 ± 0.044
391.9 ± 4.7 Ma
MSWD = 1.14
3600
3200
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
1.0
0.8
0.6
0.4
0.2
0
2
4
6
8
10
12

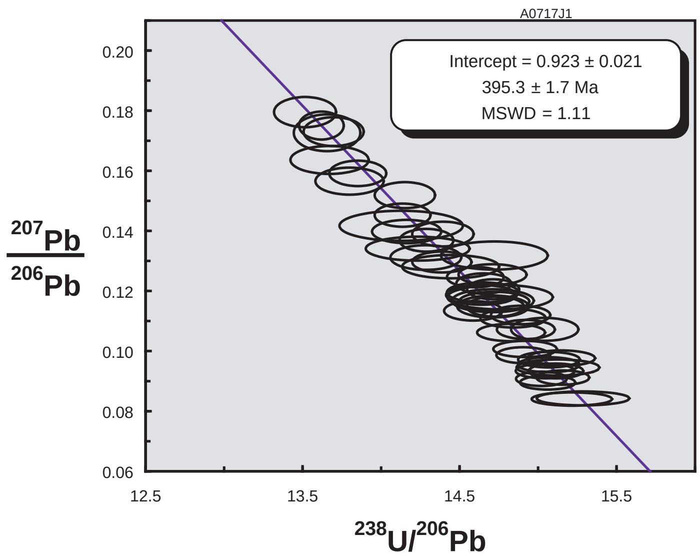

A0715M2
Intercept = 0.953 ± 0.007
385.5 ± 7.6 Ma
MSWD = 0.59
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
0.8
0.7
0.6
0.5
0.4
0.3
2
4
6
8
10
12

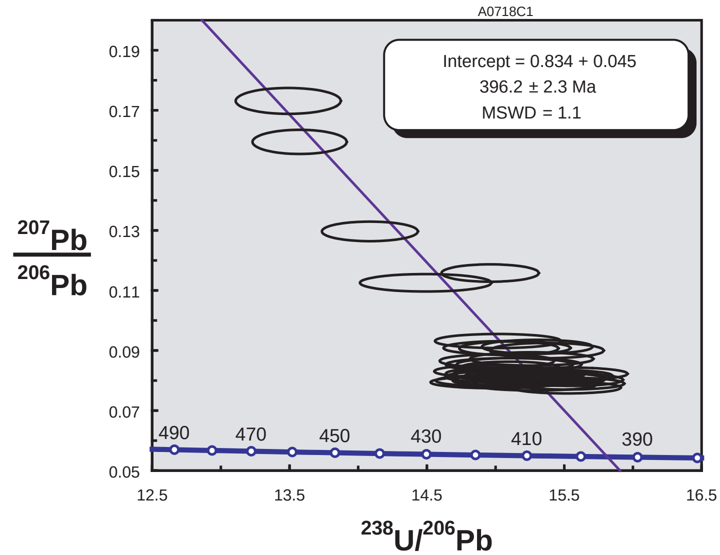

A0714U1
Caledonian
~936 Ma
2800
2000
1200
400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
1.0
0.8
0.6
0.4
0.2
0.0
0
4
8
12
16

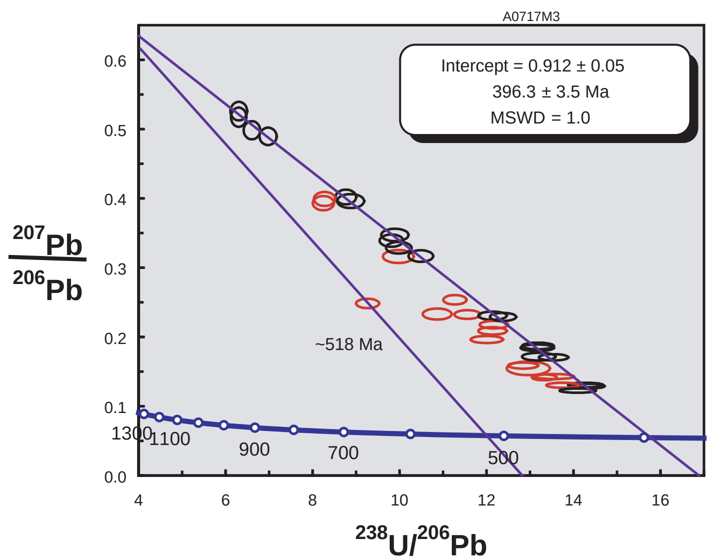

A0715R1
Intercept = 0.912 ± 0.05
396 ± 17 Ma
MSWD = 0.48
5000
4800
4600
4400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
0.9
0.8
0.7
0.6
0.5
0
2
4
6
8

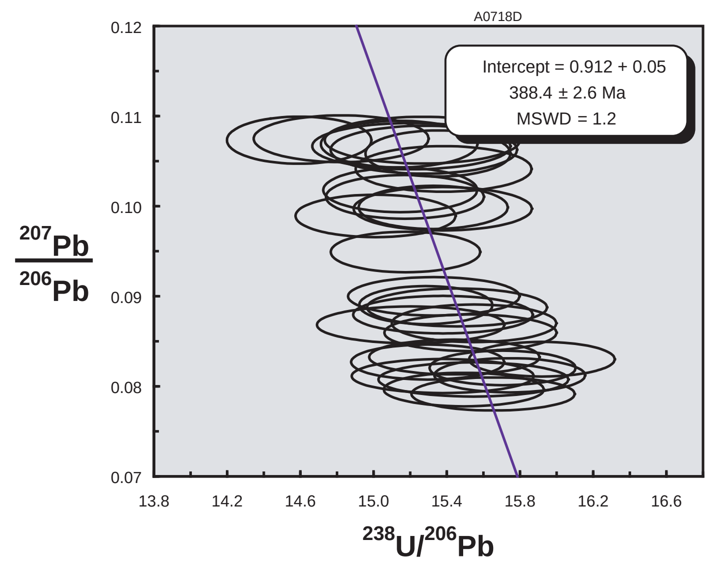

A0715C1
~686 Ma
~928 Ma
2100
1900
1700
1500
1300
1100
900
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
0.65
0.55
0.45
0.35
0.25
0.15
0.05
2.5
3.5
4.5
5.5
6.5
7.5
8.5

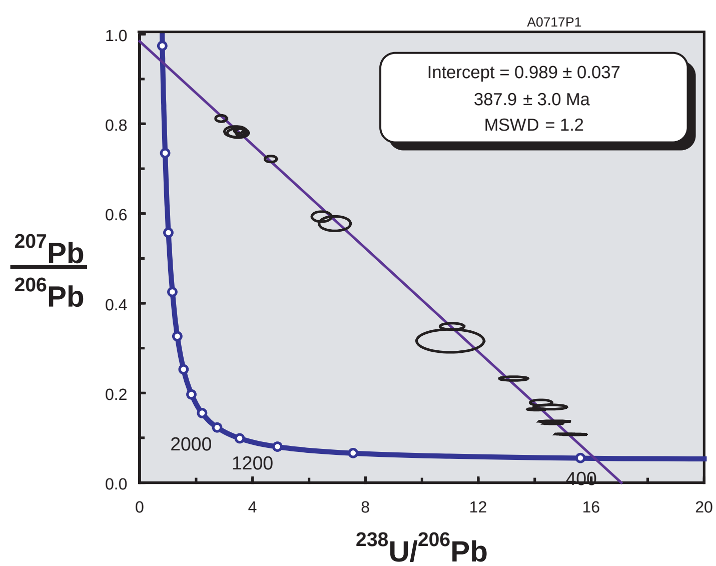

A0715S
Intercept = 0.897 ± 0.020
405.5 ± 7.5 Ma
MSWD = 0.55
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
0.9
0.8
0.7
0.6
0.5
0.4
0
2
4
6
8

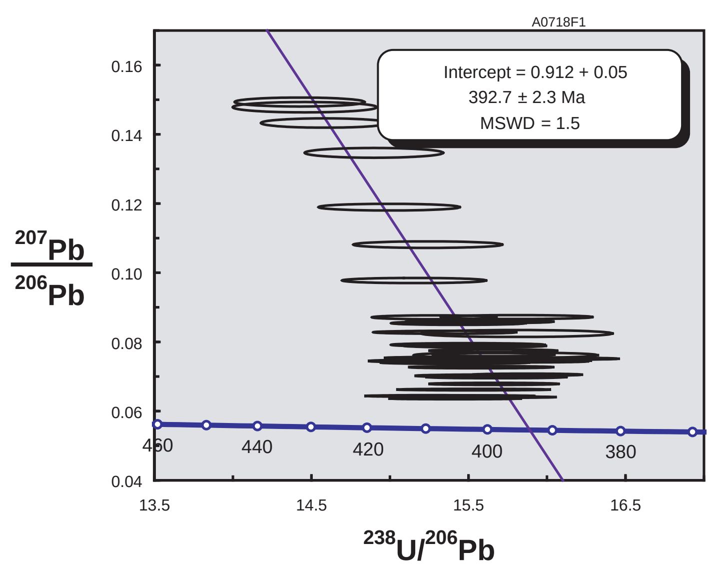

A0717J1
Intercept = 0.923 ± 0.021
395.3 ± 1.7 Ma
MSWD = 1.11
207Pb/206Pb
238U/206Pb

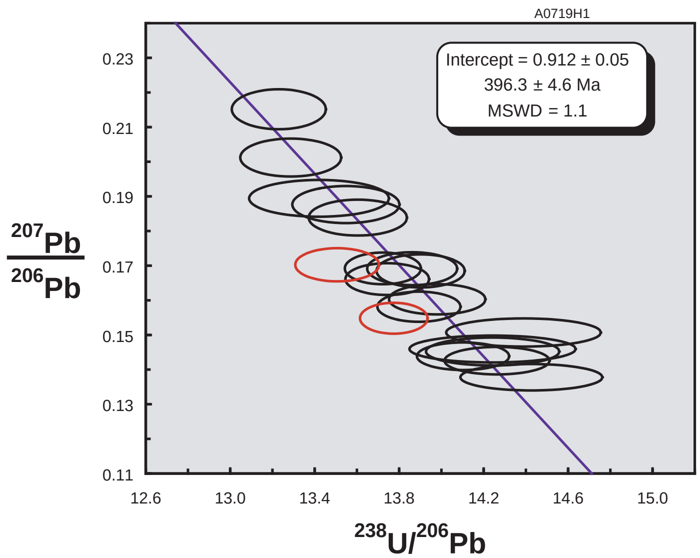

A0718C1
Intercept = 0.834 + 0.045
396.2 ± 2.3 Ma
MSWD = 1.1
207Pb/206Pb
238U/206Pb

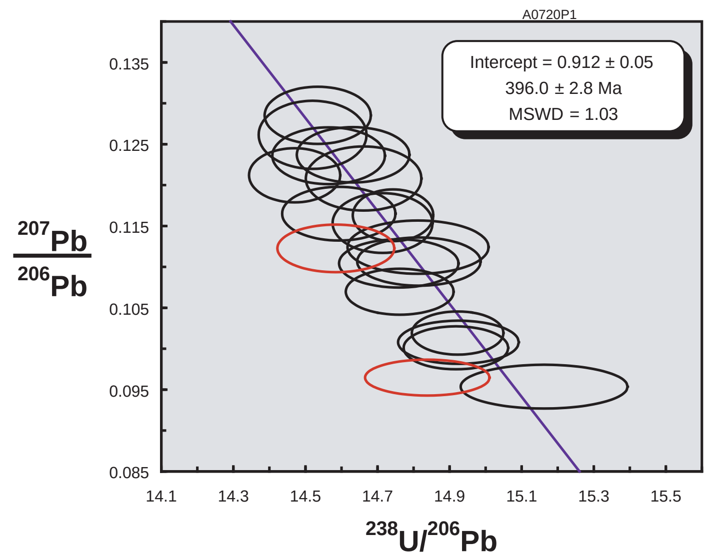

A0717M3
Intercept = 0.912 ± 0.05
396.3 ± 3.5 Ma
MSWD = 1.0
~518 Ma
207Pb/206Pb
238U/206Pb

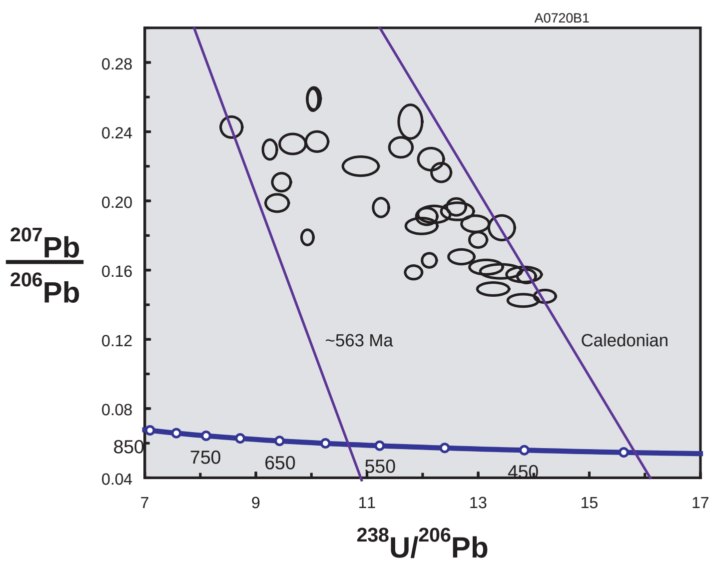

A0718D
Intercept = 0.912 + 0.05
388.4 ± 2.6 Ma
MSWD = 1.2
207Pb/206Pb
238U/206Pb

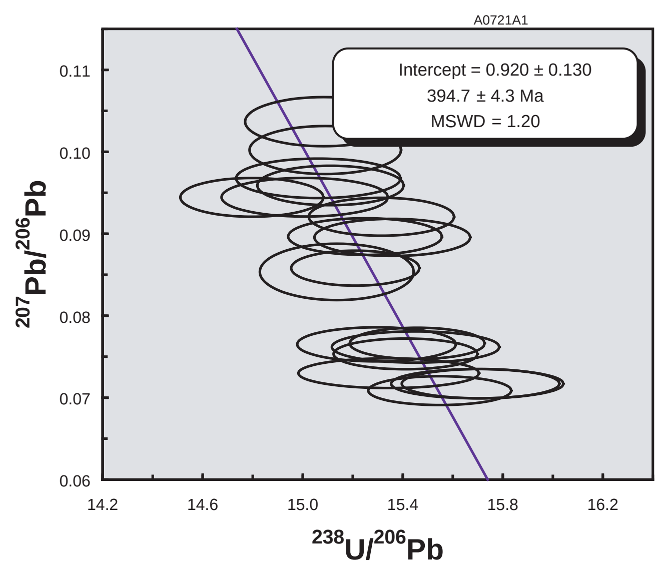

A0717P1
Intercept = 0.989 ± 0.037
387.9 ± 3.0 Ma
MSWD = 1.2
207Pb/206Pb
238U/206Pb

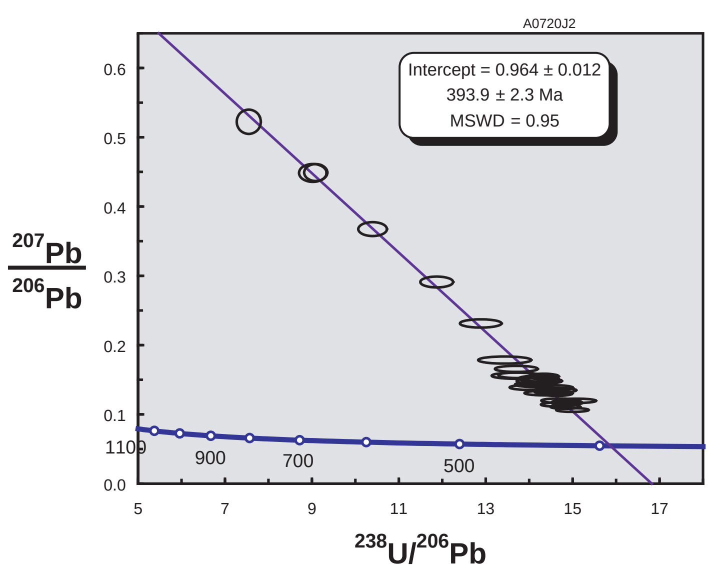

A0718F1
Intercept = 0.912 + 0.05
392.7 ± 2.3 Ma
MSWD = 1.5
207Pb/206Pb
238U/206Pb

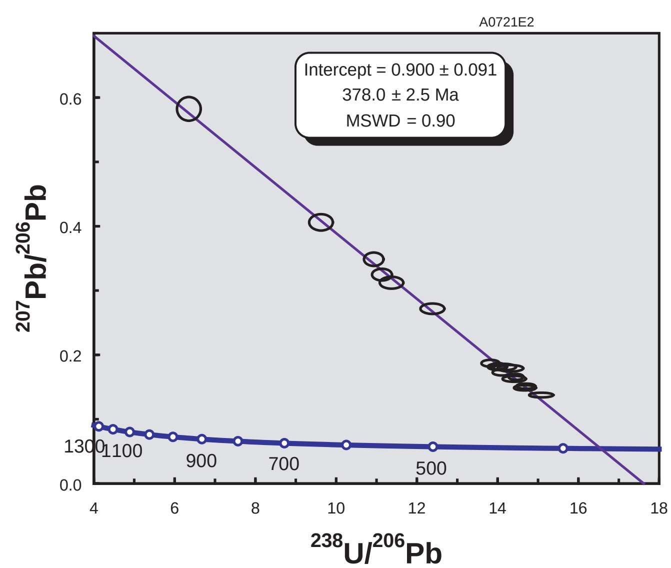

A0719H1
Intercept = 0.912 ± 0.05
396.3 ± 4.6 Ma
MSWD = 1.1
0.23
0.21
0.19
0.17
0.15
0.13
0.11
207Pb/206Pb
12.6
13.0
13.4
13.8
14.2
14.6
15.0
238U/206Pb

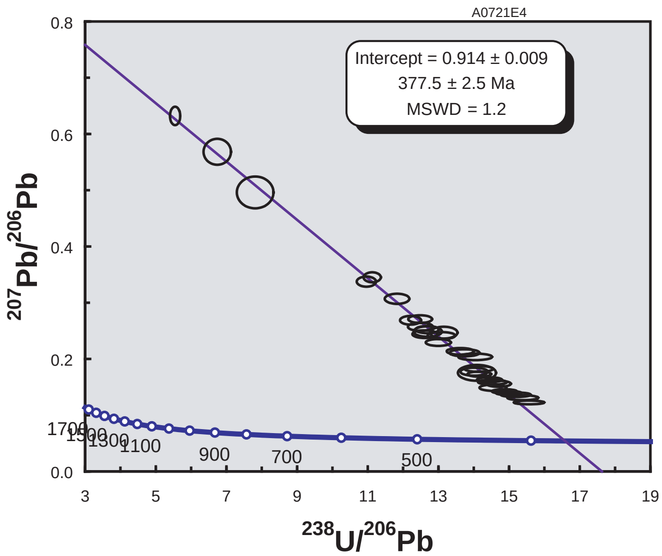

A0720P1
Intercept = 0.912 ± 0.05
396.0 ± 2.8 Ma
MSWD = 1.03
0.135
0.125
0.115
0.105
0.095
0.085
207Pb/206Pb
14.1
14.3
14.5
14.7
14.9
15.1
15.3
15.5
238U/206Pb


A0720B1
0.28
0.24
0.20
0.16
0.12
0.08
0.04
207Pb/206Pb
~563 Ma
Caledonian
850
750
650
550
450
7
9
11
13
15
17
238U/206Pb

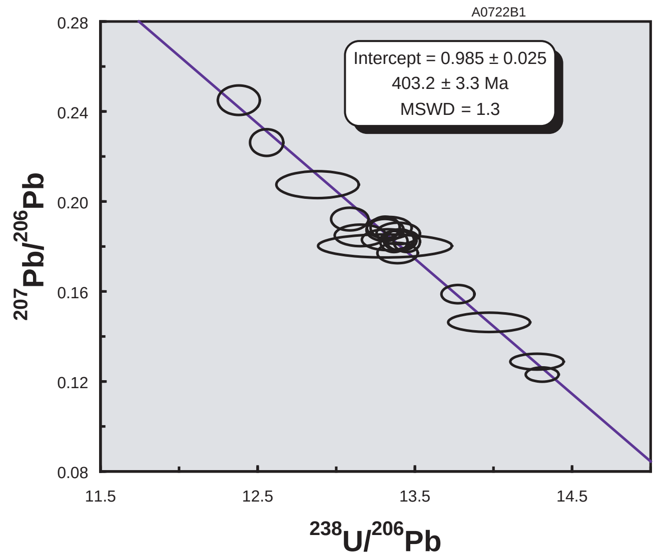

A0721A1
Intercept = 0.920 ± 0.130
394.7 ± 4.3 Ma
MSWD = 1.20
0.11
0.10
0.09
0.08
0.07
0.06
207Pb/206Pb
14.2
14.6
15.0
15.4
15.8
16.2
238U/206Pb


A0720J2
Intercept = 0.964 ± 0.012
393.9 ± 2.3 Ma
MSWD = 0.95
0.6
0.5
0.4
0.3
0.2
0.1
0.0
207Pb/206Pb
1100
900
700
500
5
7
9
11
13
15
17
238U/206Pb

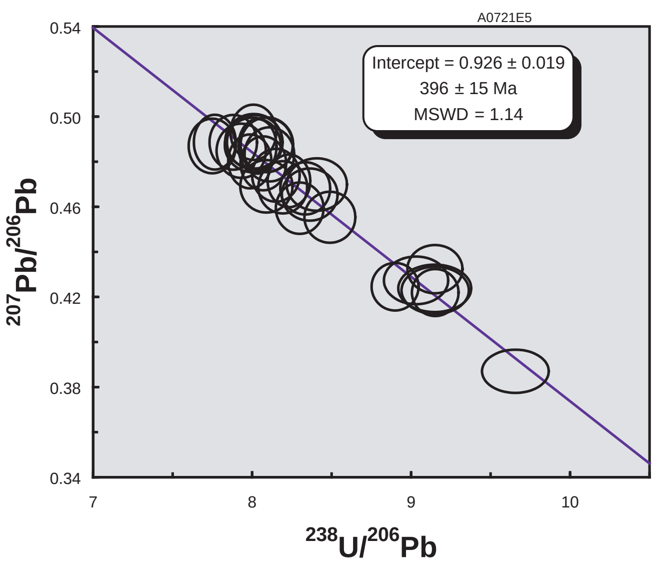

A0721E2
Intercept = 0.900 ± 0.091
378.0 ± 2.5 Ma
MSWD = 0.90
0.6
0.4
0.2
0.0
207Pb/206Pb
1300
1100
900
700
500
4
6
8
10
12
14
16
18
238U/206Pb



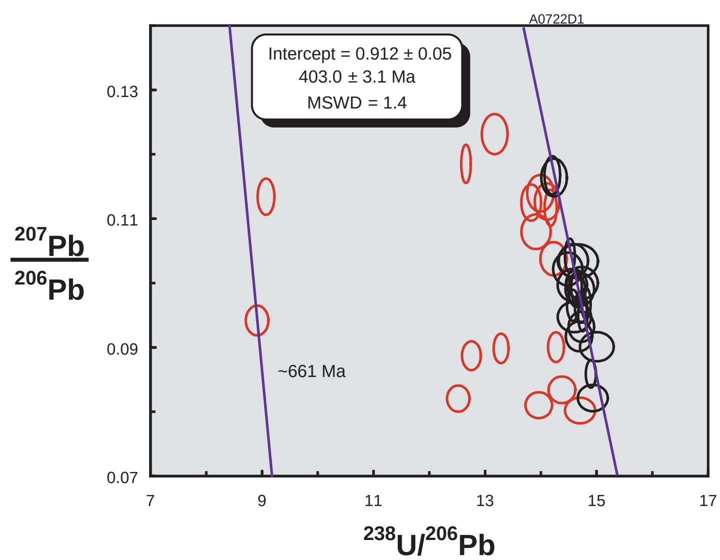
A0721E4
Intercept = 0.914 ± 0.009
377.5 ± 2.5 Ma
MSWD = 1.2
207Pb/206Pb
238U/206Pb
1700
1500
1300
1100
900
700
500



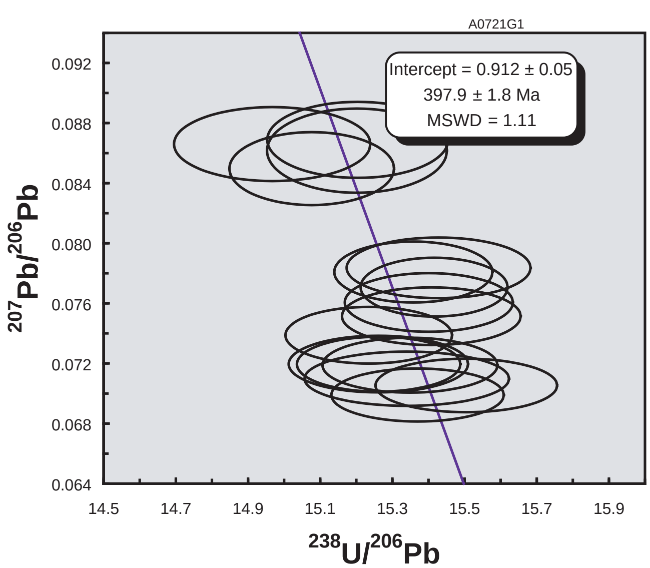
A0722B1
Intercept = 0.985 ± 0.025
403.2 ± 3.3 Ma
MSWD = 1.3
207Pb/206Pb
238U/206Pb



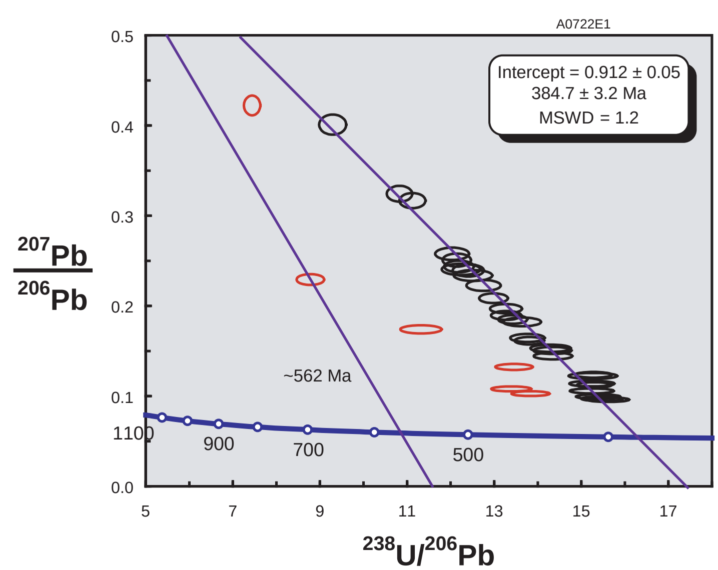
A0721E5
Intercept = 0.926 ± 0.019
396 ± 15 Ma
MSWD = 1.14
207Pb/206Pb
238U/206Pb



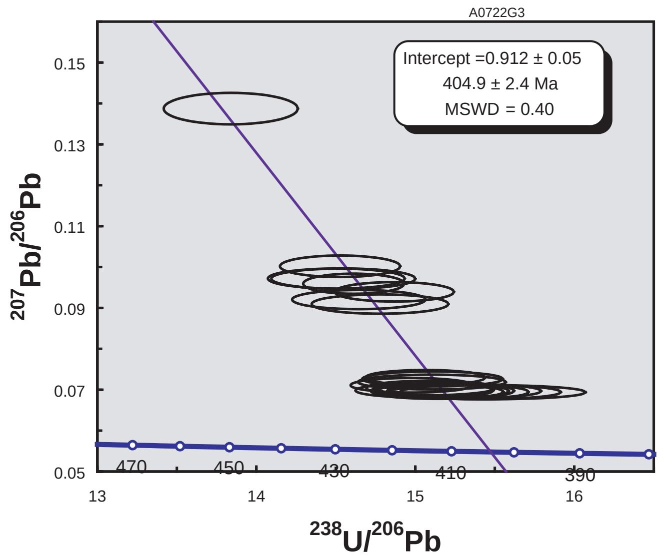
A0722D1
Intercept = 0.912 ± 0.05
403.0 ± 3.1 Ma
MSWD = 1.4
~661 Ma
207Pb/206Pb
238U/206Pb

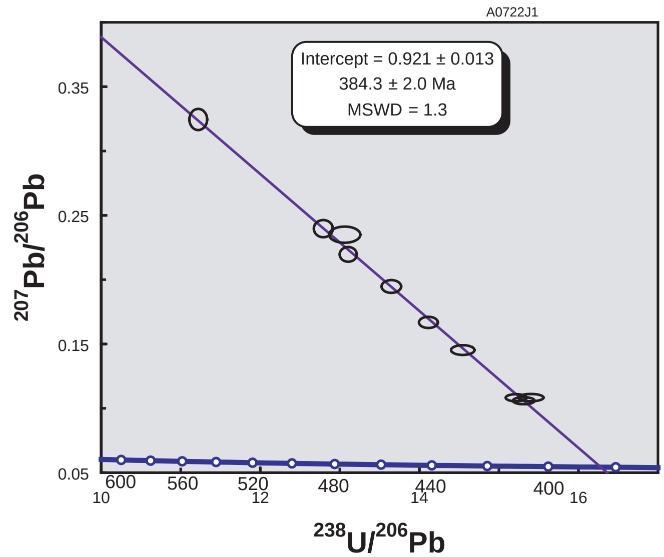


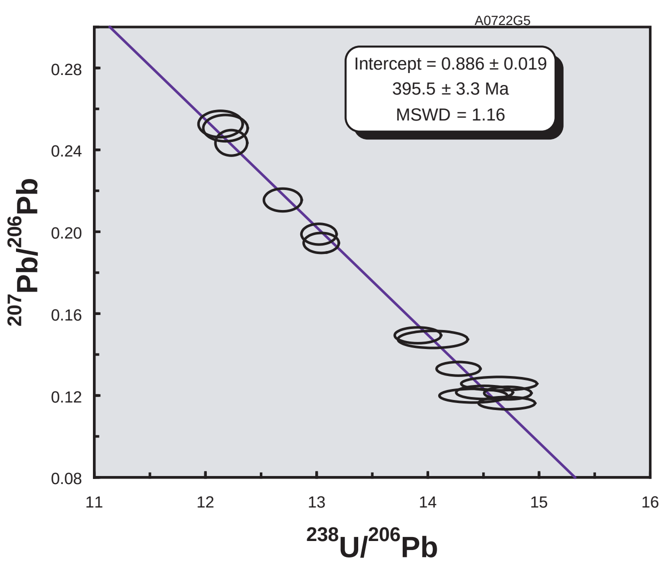
A0721G1
Intercept = 0.912 ± 0.05
397.9 ± 1.8 Ma
MSWD = 1.11
207Pb/206Pb
238U/206Pb

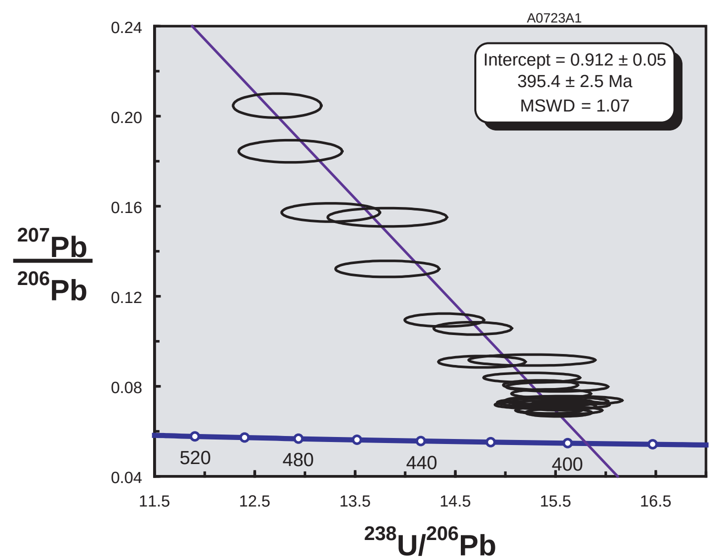


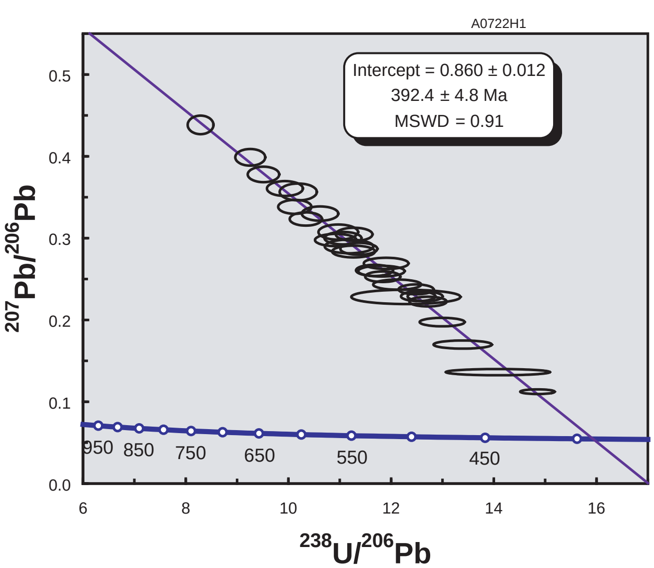
A0722E1
Intercept = 0.912 ± 0.05
384.7 ± 3.2 Ma
MSWD = 1.2
~562 Ma
1100
900
700
500
207Pb/206Pb
238U/206Pb

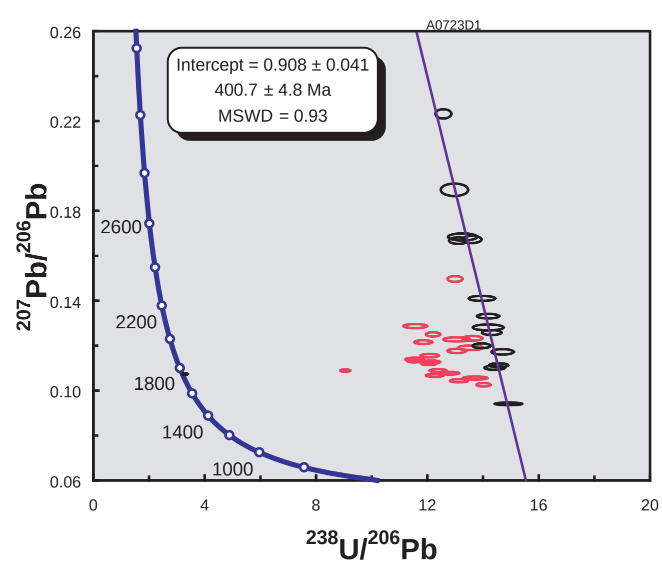

A0722G3
Intercept =0.912 ± 0.05
404.9 ± 2.4 Ma
MSWD = 0.40
207Pb/206Pb
0.15
0.13
0.11
0.09
0.07
0.05
470
450
430
410
390
13
14
15
16
238U/206Pb

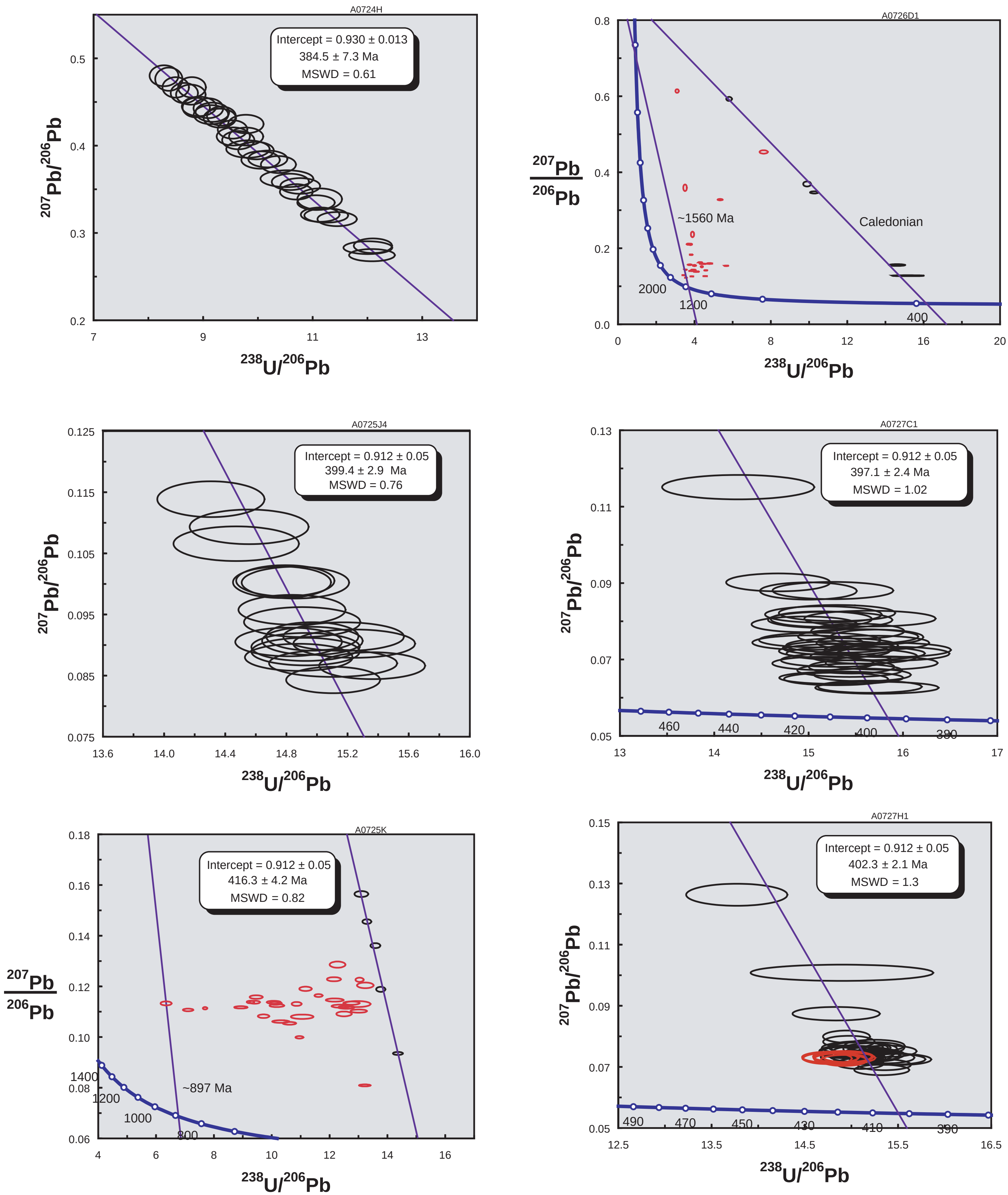

A0722J1
Intercept = 0.921 ± 0.013
384.3 ± 2.0 Ma
MSWD = 1.3
207Pb/206Pb
0.35
0.25
0.15
0.05
600
560
520
480
440
400
10
12
14
16
238U/206Pb

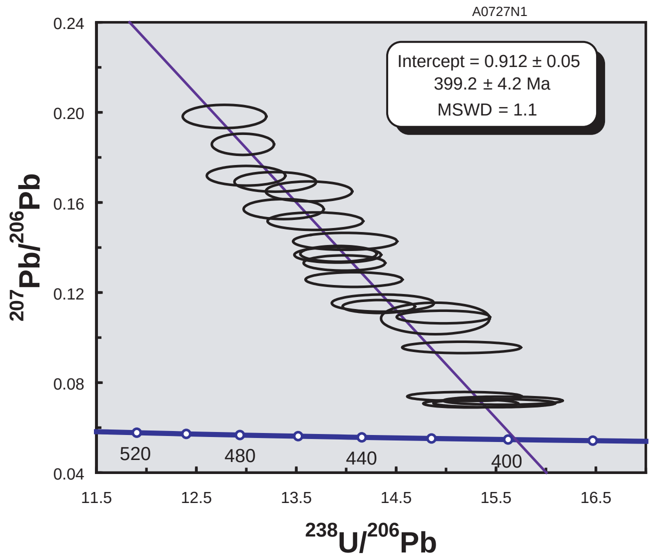

A0722G5
Intercept = 0.886 ± 0.019
395.5 ± 3.3 Ma
MSWD = 1.16
207Pb/206Pb
0.28
0.24
0.20
0.16
0.12
0.08
11
12
13
14
15
16
238U/206Pb


A0723A1
Intercept = 0.912 ± 0.05
395.4 ± 2.5 Ma
MSWD = 1.07
207Pb
206Pb
0.24
0.20
0.16
0.12
0.08
0.04
520
480
440
400
11.5
12.5
13.5
14.5
15.5
16.5
238U/206Pb

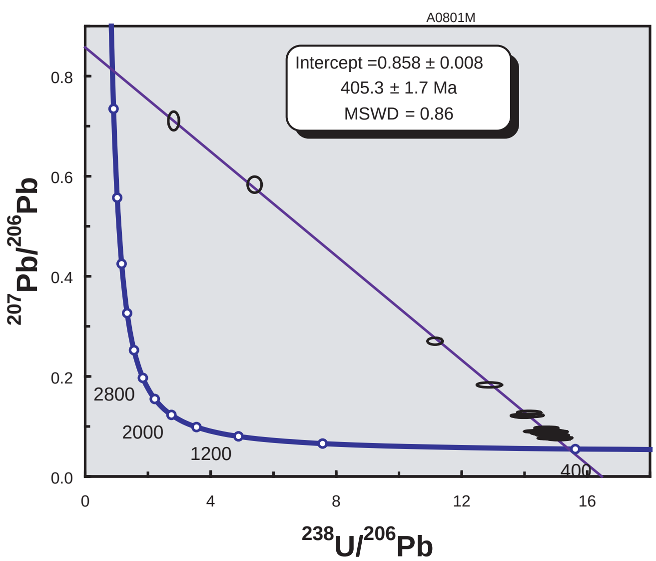

A0722H1
Intercept = 0.860 ± 0.012
392.4 ± 4.8 Ma
MSWD = 0.91
207Pb/206Pb
0.5
0.4
0.3
0.2
0.1
0.0
950
850
750
650
550
450
6
8
10
12
14
16
238U/206Pb


A0723D1
Intercept = 0.908 ± 0.041
400.7 ± 4.8 Ma
MSWD = 0.93
207Pb/206Pb
0.26
0.22
0.18
0.14
0.10
0.06
2600
2200
1800
1400
1000
0
4
8
12
16
20
238U/206Pb

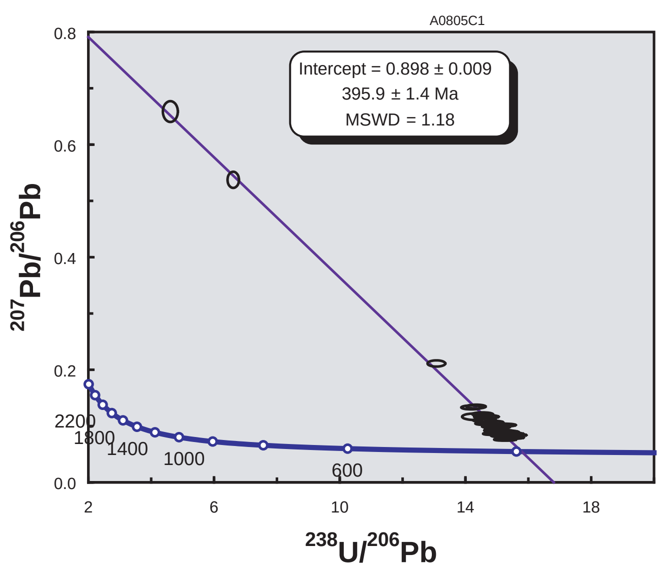

A0724H
Intercept = 0.930 ± 0.013
384.5 ± 7.3 Ma
MSWD = 0.61
207Pb/206Pb
238U/206Pb
A0726D1
~1560 Ma
Caledonian
2000
1200
400
A0725J4
Intercept = 0.912 ± 0.05
399.4 ± 2.9 Ma
MSWD = 0.76
A0727C1
Intercept = 0.912 ± 0.05
397.1 ± 2.4 Ma
MSWD = 1.02
460
440
420
400
390
A0725K
Intercept = 0.912 ± 0.05
416.3 ± 4.2 Ma
MSWD = 0.82
~897 Ma
1400
1200
1000
800
A0727H1
Intercept = 0.912 ± 0.05
402.3 ± 2.1 Ma
MSWD = 1.3
490
470
450
430
410
390



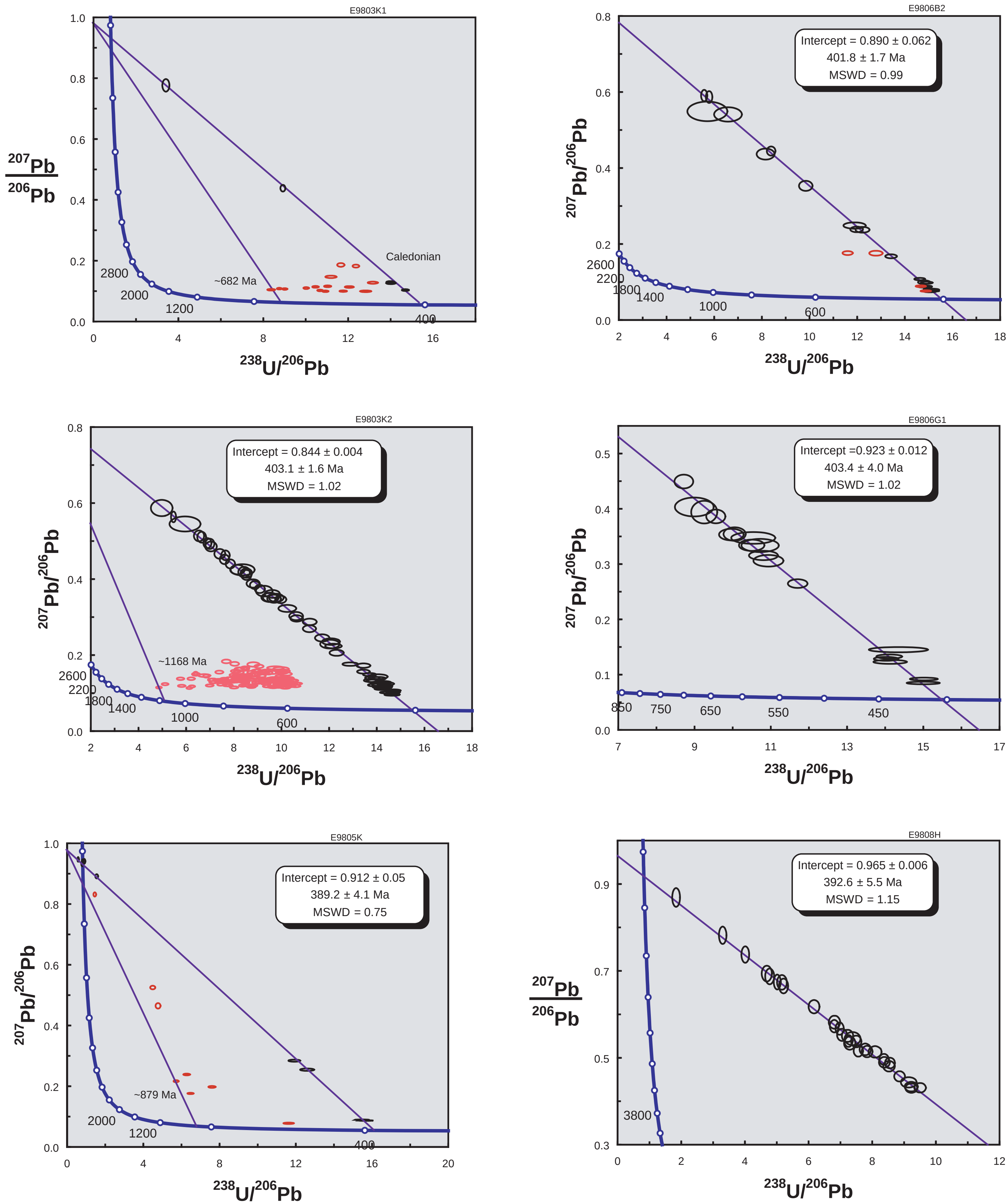
A0727N1
Intercept = 0.912 ± 0.05
399.2 ± 4.2 Ma
MSWD = 1.1
0.24
0.20
0.16
0.12
0.08
0.04
520
480
440
400
11.5
12.5
13.5
14.5
15.5
16.5
207Pb/206Pb
238U/206Pb



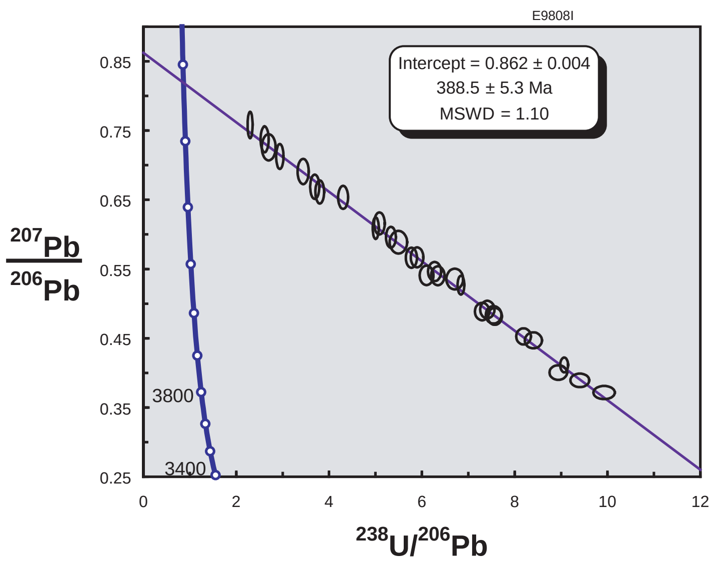
A0801M
Intercept =0.858 ± 0.008
405.3 ± 1.7 Ma
MSWD = 0.86
0.8
0.6
0.4
0.2
0.0
2800
2000
1200
400
0
4
8
12
16
207Pb/206Pb
238U/206Pb



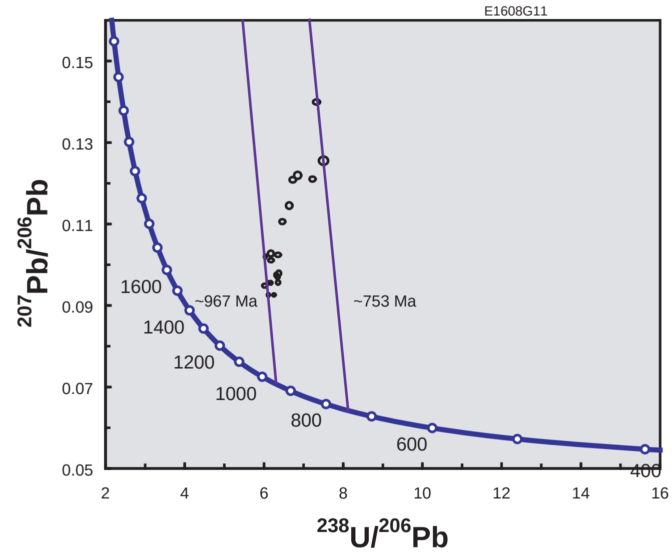
A0805C1
Intercept = 0.898 ± 0.009
395.9 ± 1.4 Ma
MSWD = 1.18
0.8
0.6
0.4
0.2
0.0
2200
1800
1400
1000
600
2
6
10
14
18
207Pb/206Pb
238U/206Pb



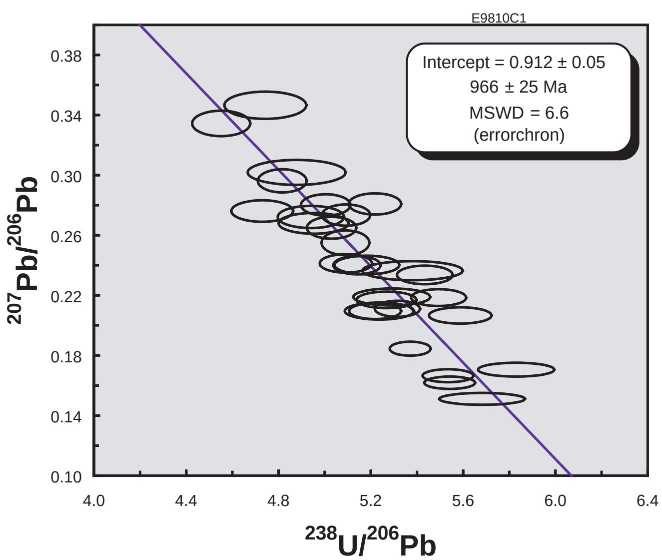
E9803K1
~682 Ma
Caledonian
2800
2000
1200
400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
E9806B2
Intercept = 0.890 ± 0.062
401.8 ± 1.7 Ma
MSWD = 0.99
2600
2200
1800
1400
1000
600
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
E9803K2
Intercept = 0.844 ± 0.004
403.1 ± 1.6 Ma
MSWD = 1.02
~1168 Ma
2600
2200
1800
1400
1000
600
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
E9806G1
Intercept =0.923 ± 0.012
403.4 ± 4.0 Ma
MSWD = 1.02
850
750
650
550
450
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
E9805K
Intercept = 0.912 ± 0.05
389.2 ± 4.1 Ma
MSWD = 0.75
~879 Ma
2000
1200
400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
E9808H
Intercept = 0.965 ± 0.006
392.6 ± 5.5 Ma
MSWD = 1.15
3800
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$



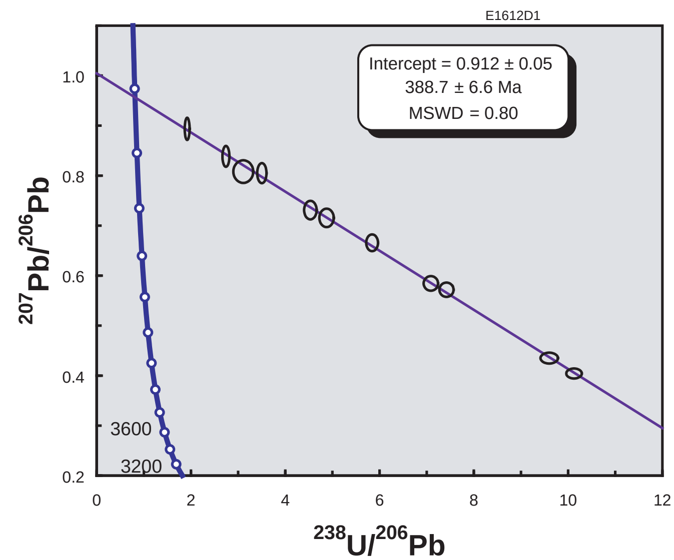
E9808I
Intercept = 0.862 ± 0.004
388.5 ± 5.3 Ma
MSWD = 1.10
207Pb/206Pb
0.85
0.75
0.65
0.55
0.45
0.35
0.25
3800
3400
0
2
4
6
8
10
12
238U/206Pb



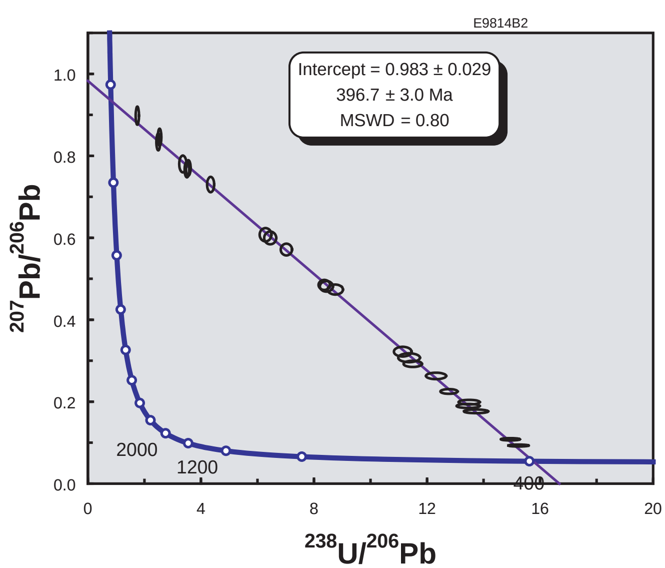
E1608G11
207Pb/206Pb
0.15
0.13
0.11
0.09
0.07
0.05
1600
1400
1200
1000
800
600
400
~967 Ma
~753 Ma
2
4
6
8
10
12
14
16
238U/206Pb



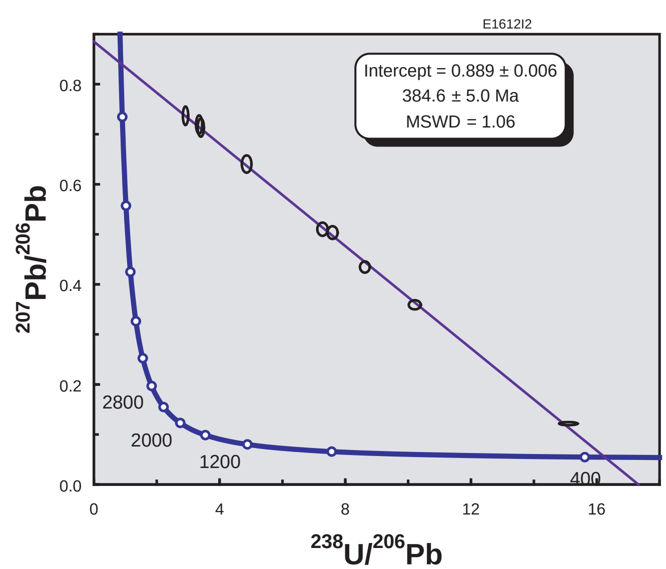
E9810C1
Intercept = 0.912 ± 0.05
966 ± 25 Ma
MSWD = 6.6
(errorchron)
207Pb/206Pb
0.38
0.34
0.30
0.26
0.22
0.18
0.14
0.10
4.0
4.4
4.8
5.2
5.6
6.0
6.4
238U/206Pb



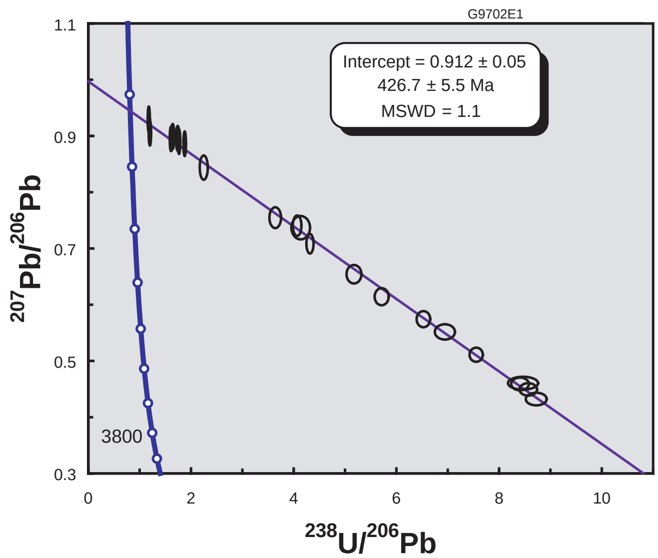
E1612D1
Intercept = 0.912 ± 0.05
388.7 ± 6.6 Ma
MSWD = 0.80
207Pb/206Pb
1.0
0.8
0.6
0.4
0.2
3600
3200
0
2
4
6
8
10
12
238U/206Pb

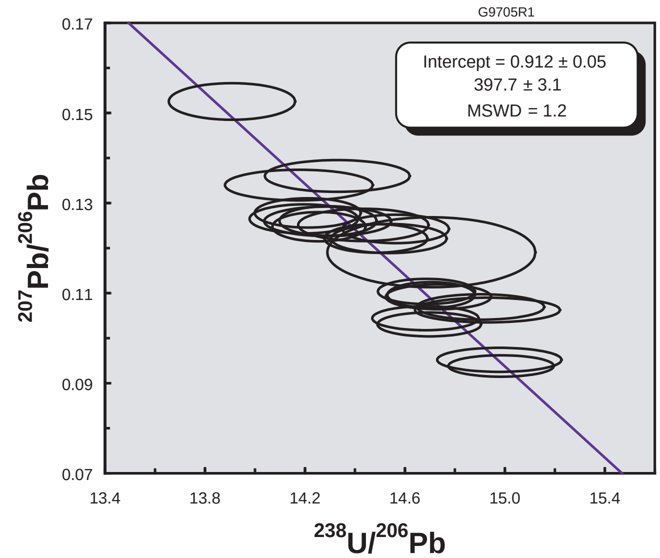


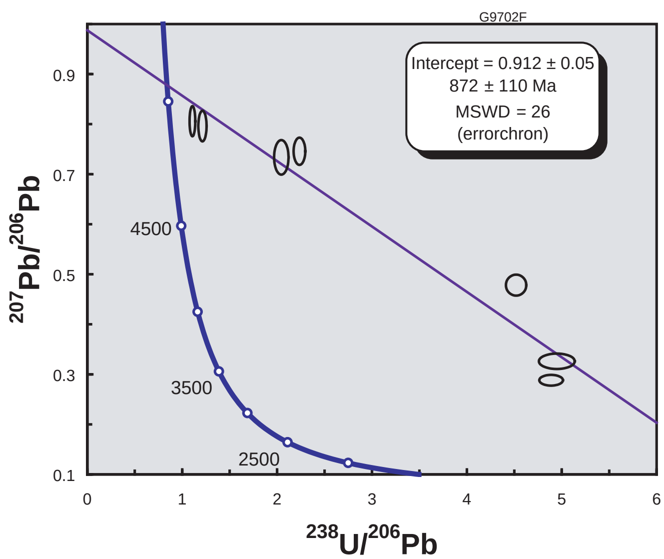
E9814B2
Intercept = 0.983 ± 0.029
396.7 ± 3.0 Ma
MSWD = 0.80
207Pb/206Pb
1.0
0.8
0.6
0.4
0.2
0.0
2000
1200
400
0
4
8
12
16
20
238U/206Pb

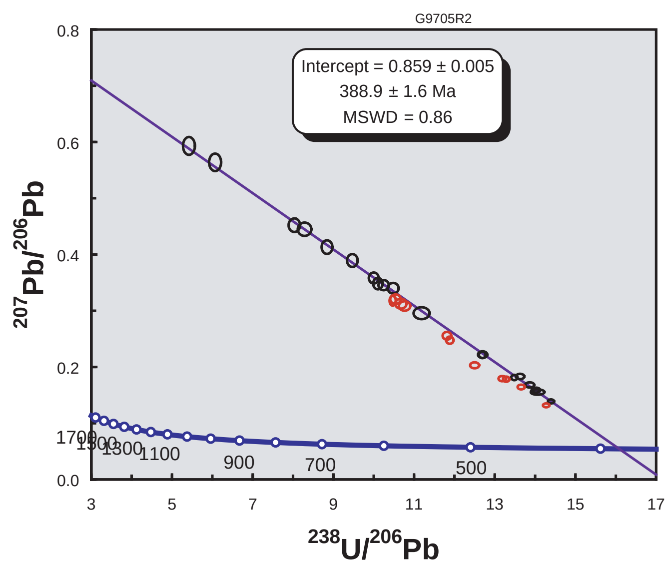


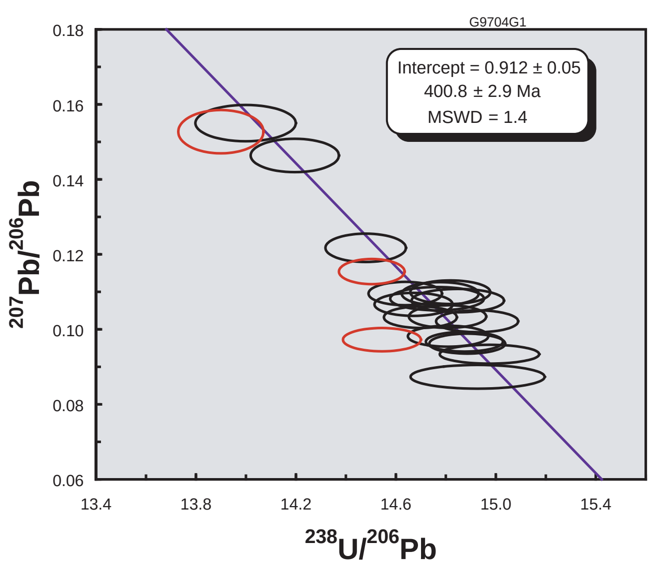
E1612I2
Intercept = 0.889 ± 0.006
384.6 ± 5.0 Ma
MSWD = 1.06
207Pb/206Pb
0.8
0.6
0.4
0.2
0.0
2800
2000
1200
400
0
4
8
12
16
238U/206Pb

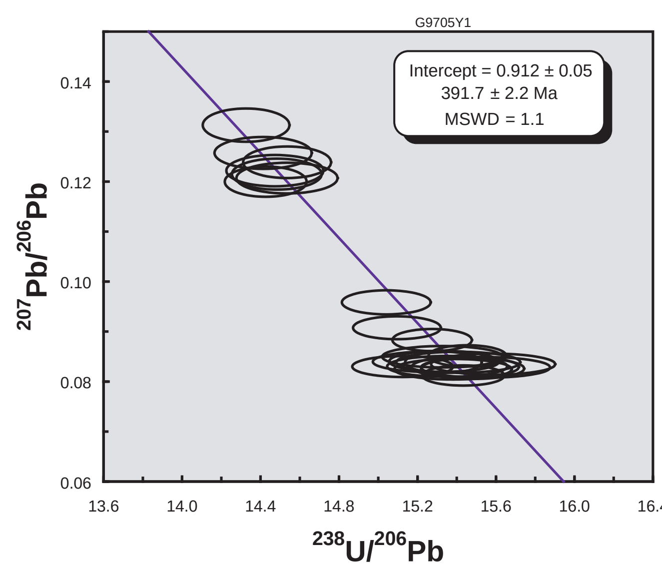

G9702E1
Intercept = 0.912 ± 0.05
426.7 ± 5.5 Ma
MSWD = 1.1
3800
1.1
0.9
0.7
0.5
0.3
0
2
4
6
8
10
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

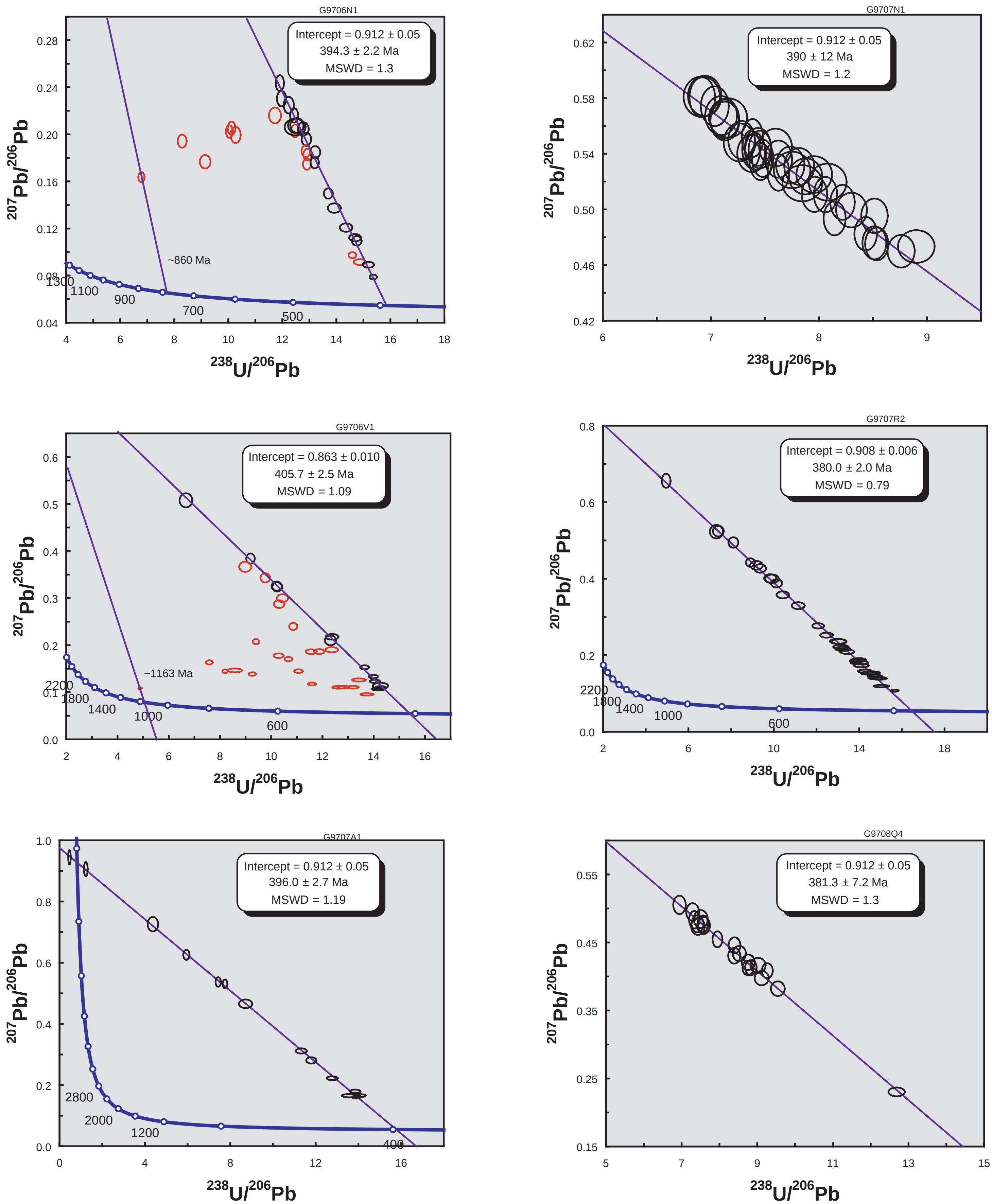

G9705R1
Intercept = 0.912 ± 0.05
397.7 ± 3.1
MSWD = 1.2
0.17
0.15
0.13
0.11
0.09
0.07
13.4
13.8
14.2
14.6
15.0
15.4
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

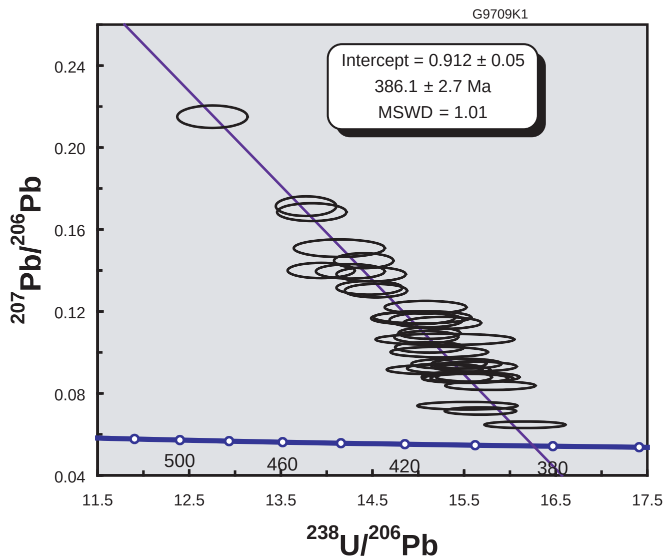

G9702F
Intercept = 0.912 ± 0.05
872 ± 110 Ma
MSWD = 26
(errorchron)
4500
3500
2500
0.9
0.7
0.5
0.3
0.1
0
1
2
3
4
5
6
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

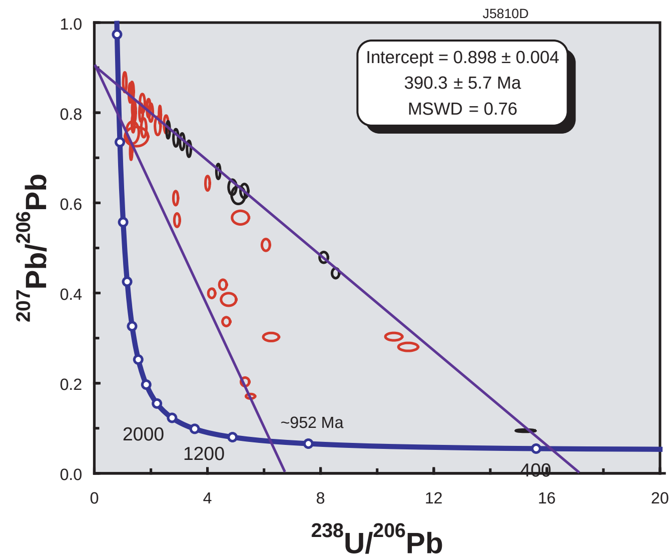

G9705R2
Intercept = 0.859 ± 0.005
388.9 ± 1.6 Ma
MSWD = 0.86
1700
1500
1300
1100
900
700
500
0.8
0.6
0.4
0.2
0.0
3
5
7
9
11
13
15
17
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

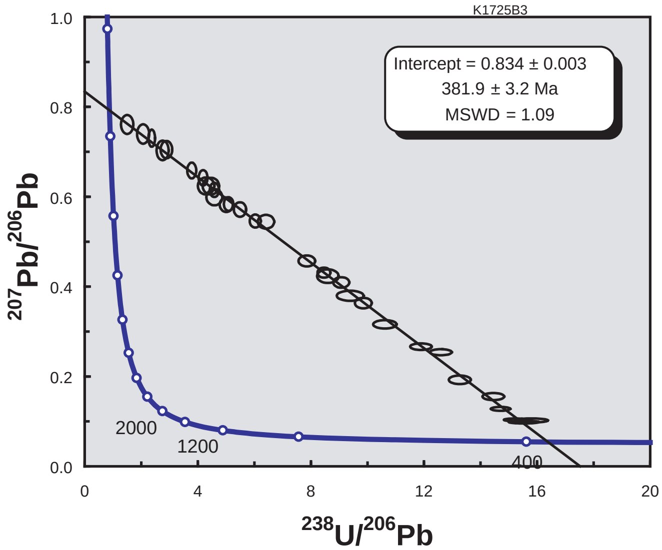

G9704G1
Intercept = 0.912 ± 0.05
400.8 ± 2.9 Ma
MSWD = 1.4
0.18
0.16
0.14
0.12
0.10
0.08
0.06
13.4
13.8
14.2
14.6
15.0
15.4
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

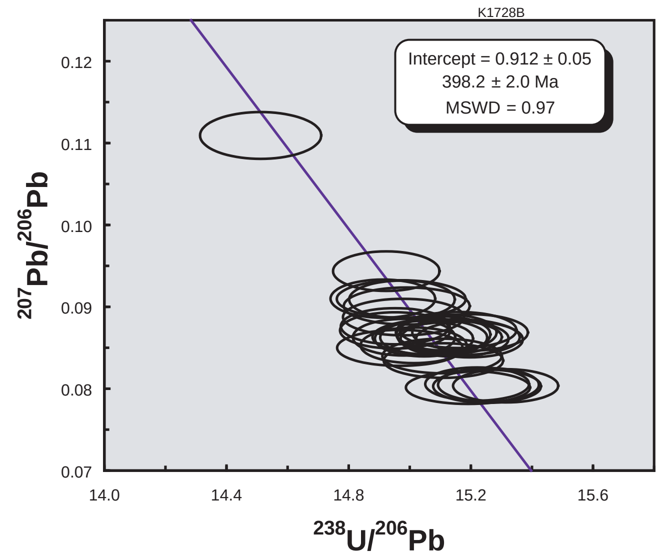

G9705Y1
Intercept = 0.912 ± 0.05
391.7 ± 2.2 Ma
MSWD = 1.1
0.14
0.12
0.10
0.08
0.06
13.6
14.0
14.4
14.8
15.2
15.6
16.0
16.4
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

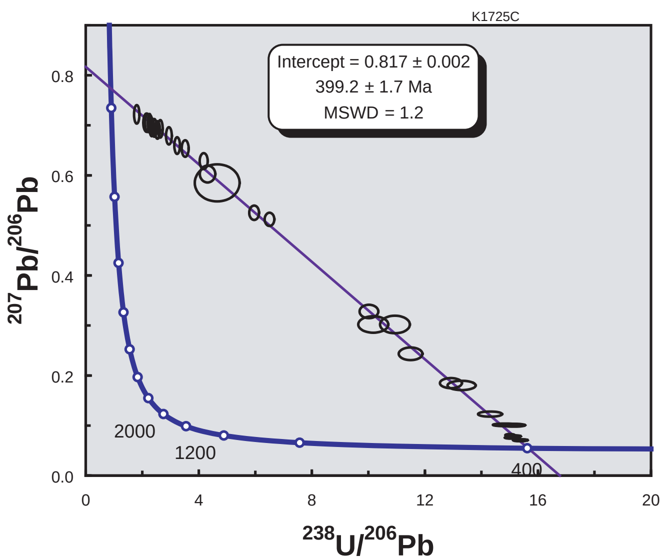

G9706N1
Intercept = 0.912 ± 0.05
394.3 ± 2.2 Ma
MSWD = 1.3
~860 Ma
1300
1100
900
700
500
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
G9707N1
Intercept = 0.912 ± 0.05
390 ± 12 Ma
MSWD = 1.2
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
G9706V1
Intercept = 0.863 ± 0.010
405.7 ± 2.5 Ma
MSWD = 1.09
~1163 Ma
2200
1800
1400
1000
600
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
G9707R2
Intercept = 0.908 ± 0.006
380.0 ± 2.0 Ma
MSWD = 0.79
2200
1800
1400
1000
600
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
G9707A1
Intercept = 0.912 ± 0.05
396.0 ± 2.7 Ma
MSWD = 1.19
2800
2000
1200
400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
G9708Q4
Intercept = 0.912 ± 0.05
381.3 ± 7.2 Ma
MSWD = 1.3
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

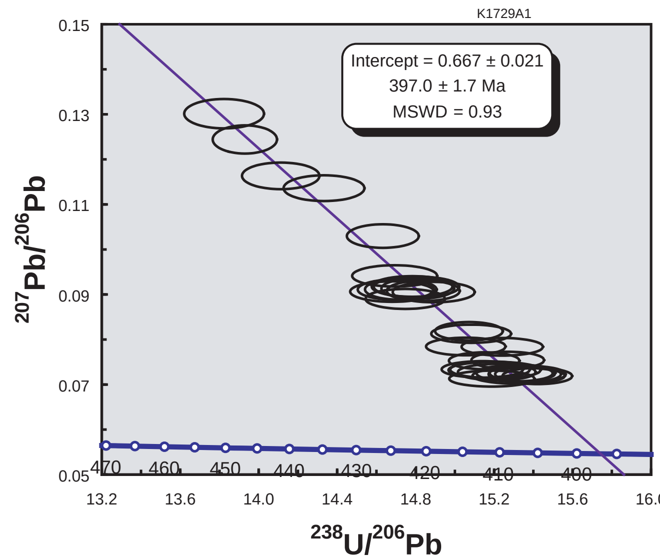

G9709K1
Intercept = 0.912 ± 0.05
386.1 ± 2.7 Ma
MSWD = 1.01
0.24
0.20
0.16
0.12
0.08
0.04
500
460
420
380
11.5
12.5
13.5
14.5
15.5
16.5
17.5
207Pb/206Pb
238U/206Pb

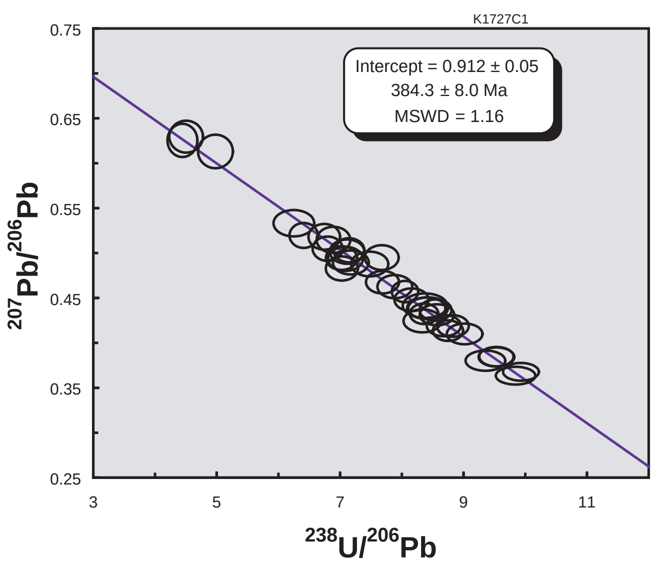

J5810D
Intercept = 0.898 ± 0.004
390.3 ± 5.7 Ma
MSWD = 0.76
1.0
0.8
0.6
0.4
0.2
0.0
~952 Ma
2000
1200
400
0
4
8
12
16
20
207Pb/206Pb
238U/206Pb

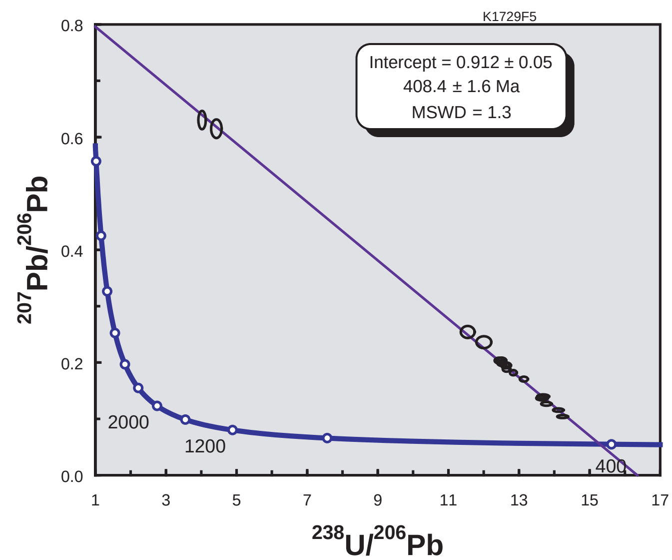

K1725B3
Intercept = 0.834 ± 0.003
381.9 ± 3.2 Ma
MSWD = 1.09
2000
1200
400
207Pb/206Pb
238U/206Pb

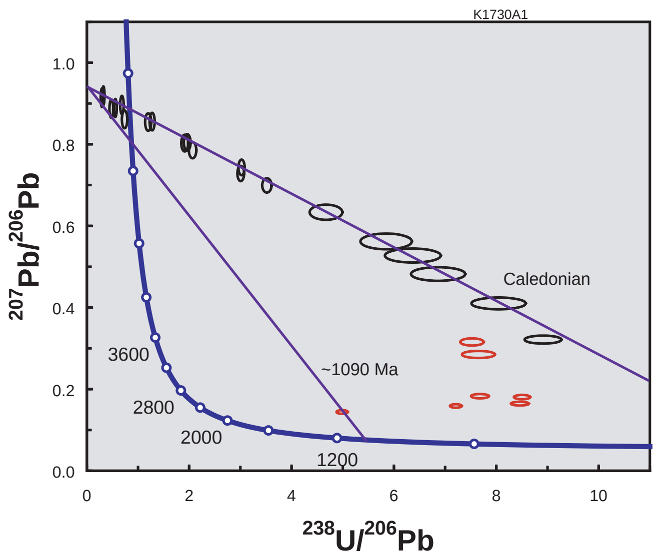

K1728B
Intercept = 0.912 ± 0.05
398.2 ± 2.0 Ma
MSWD = 0.97
207Pb/206Pb
238U/206Pb

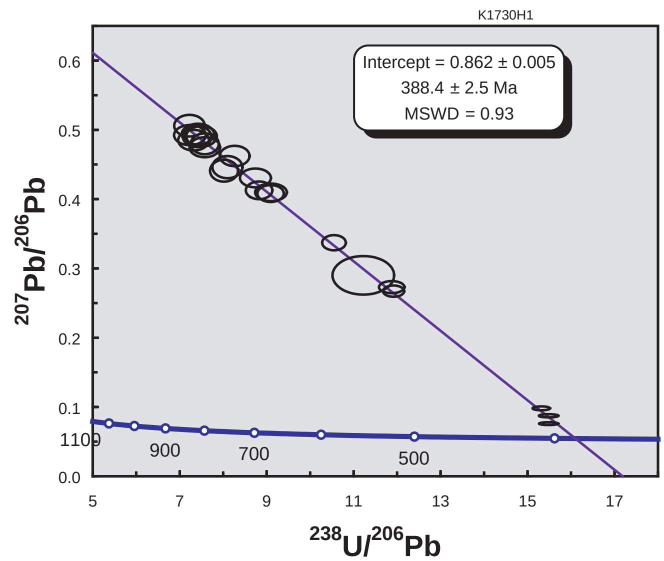

K1725C
Intercept = 0.817 ± 0.002
399.2 ± 1.7 Ma
MSWD = 1.2
2000
1200
400
207Pb/206Pb
238U/206Pb

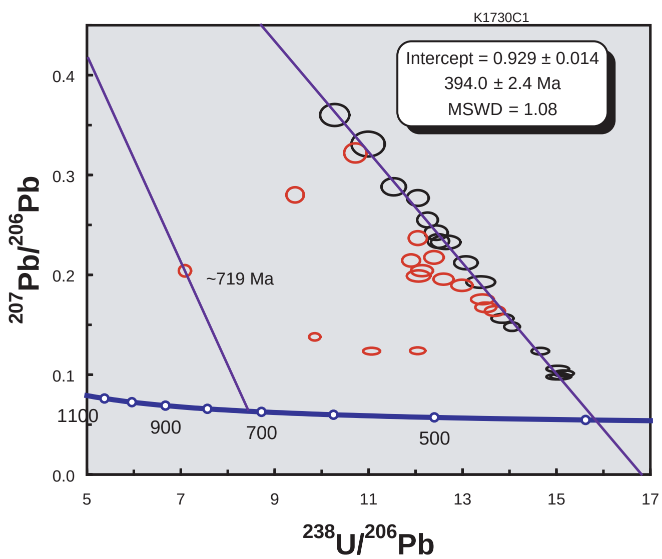

K1729A1
Intercept = 0.667 ± 0.021
397.0 ± 1.7 Ma
MSWD = 0.93
470
460
450
440
430
420
410
400
207Pb/206Pb
238U/206Pb

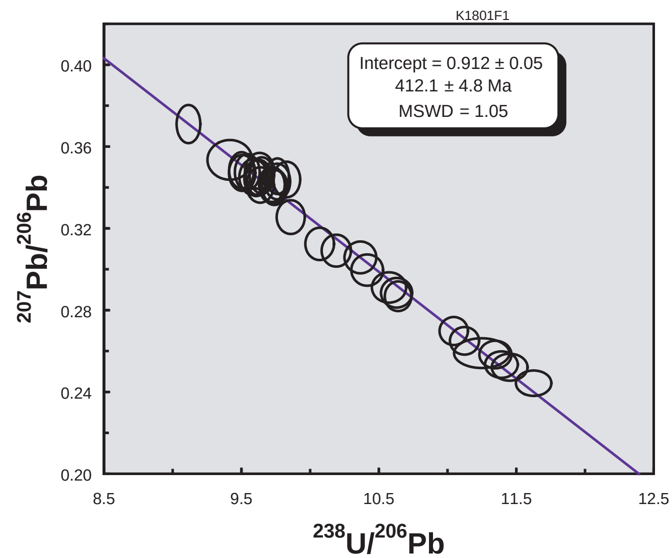

K1727C1
Intercept = 0.912 ± 0.05
384.3 ± 8.0 Ma
MSWD = 1.16
207Pb/206Pb
238U/206Pb

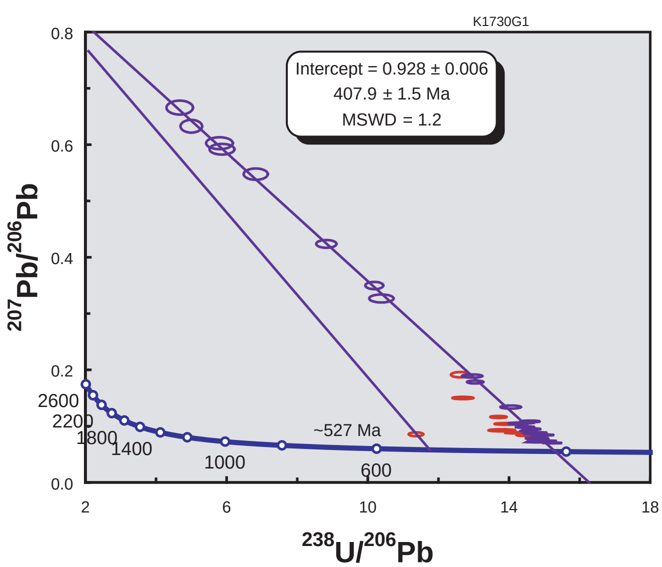

K1729F5
Intercept = 0.912 ± 0.05
408.4 ± 1.6 Ma
MSWD = 1.3
2000
1200
400
207Pb/206Pb
238U/206Pb

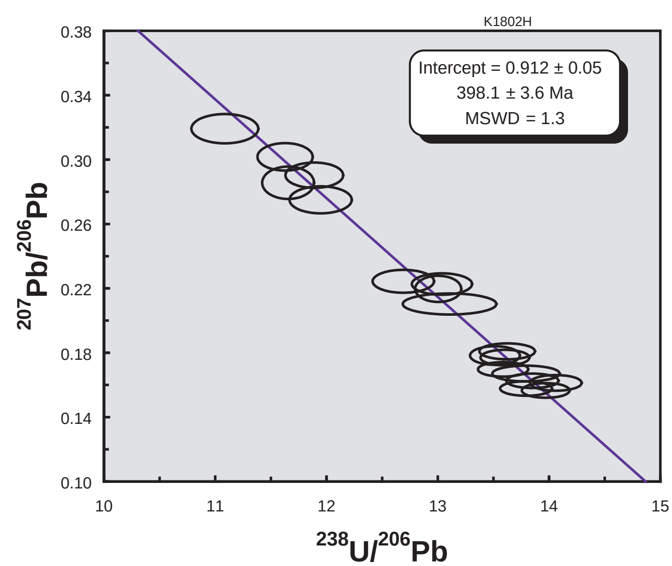

K1730A1
Caledonian
~1090 Ma
3600
2800
2000
1200
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

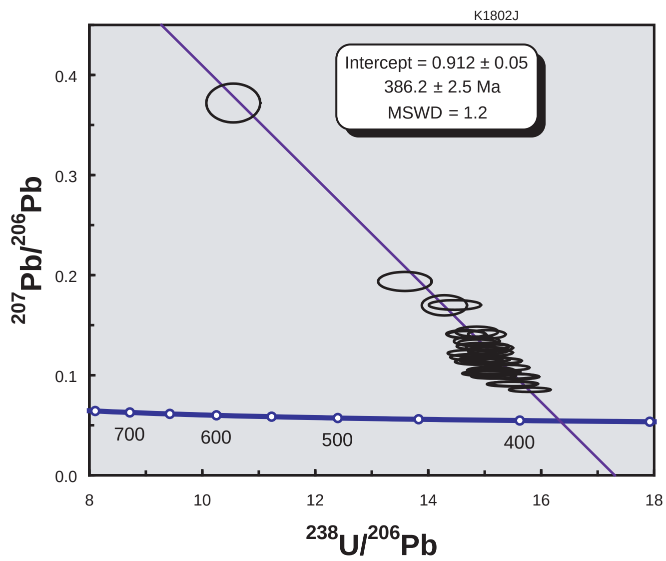

K1730H1
Intercept = 0.862 ± 0.005
388.4 ± 2.5 Ma
MSWD = 0.93
1100
900
700
500
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

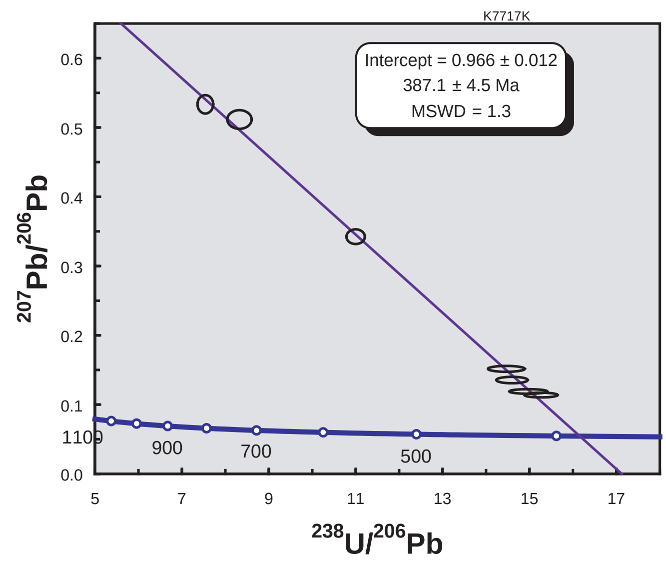

K1730C1
Intercept = 0.929 ± 0.014
394.0 ± 2.4 Ma
MSWD = 1.08
~719 Ma
1100
900
700
500
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

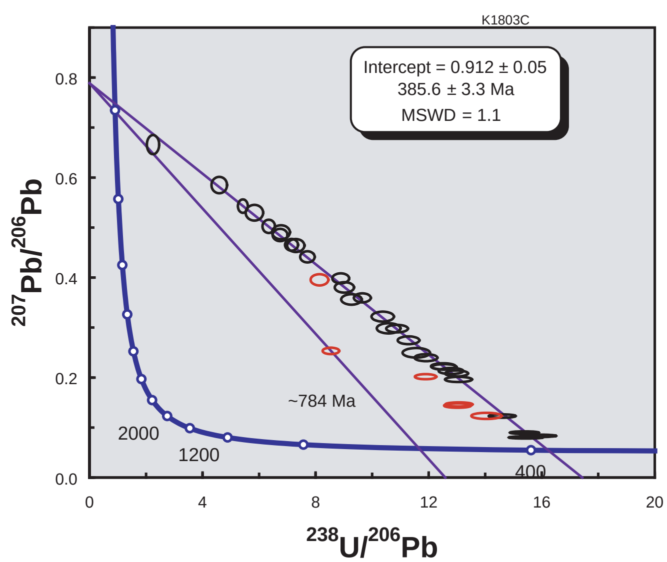

K1801F1
Intercept = 0.912 ± 0.05
412.1 ± 4.8 Ma
MSWD = 1.05
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

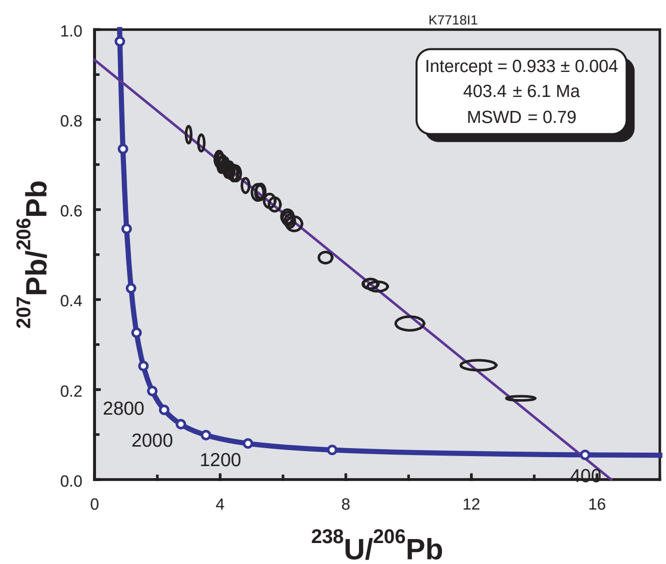

K1730G1
Intercept = 0.928 ± 0.006
407.9 ± 1.5 Ma
MSWD = 1.2
~527 Ma
2600
2200
1800
1400
1000
600
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

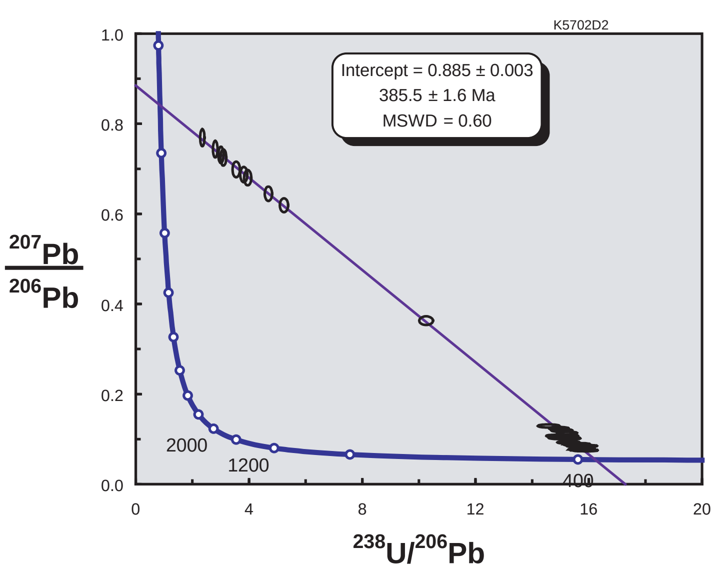

K1802H
Intercept = 0.912 ± 0.05
398.1 ± 3.6 Ma
MSWD = 1.3
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

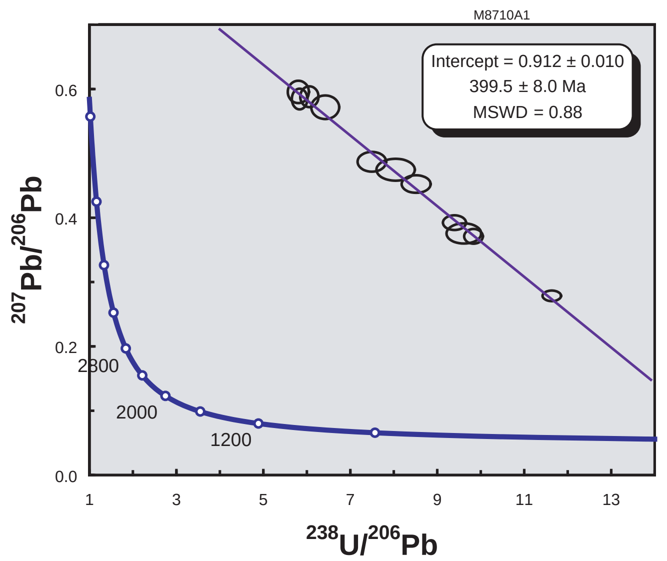

K1802J
Intercept = 0.912 ± 0.05
386.2 ± 2.5 Ma
MSWD = 1.2
700
600
500
400
0.0
0.1
0.2
0.3
0.4
8
10
12
14
16
18
207Pb/206Pb
238U/206Pb

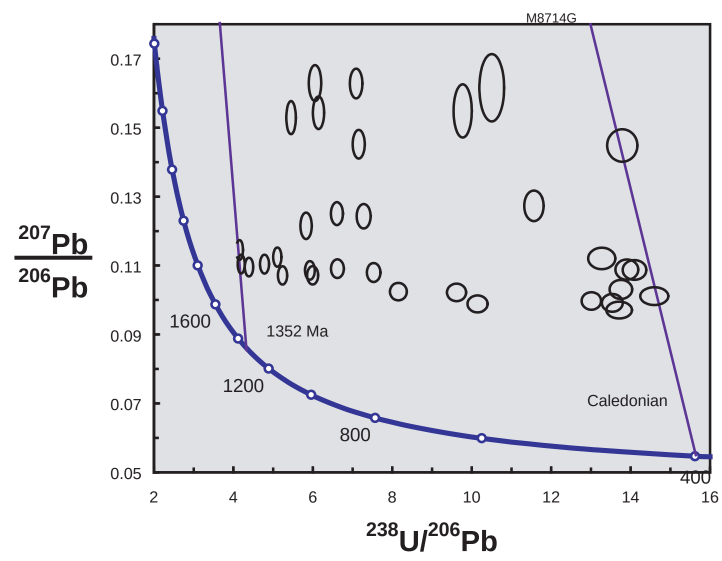

K7717K
Intercept = 0.966 ± 0.012
387.1 ± 4.5 Ma
MSWD = 1.3
1100
900
700
500
0.0
0.1
0.2
0.3
0.4
0.5
0.6
5
7
9
11
13
15
17
207Pb/206Pb
238U/206Pb

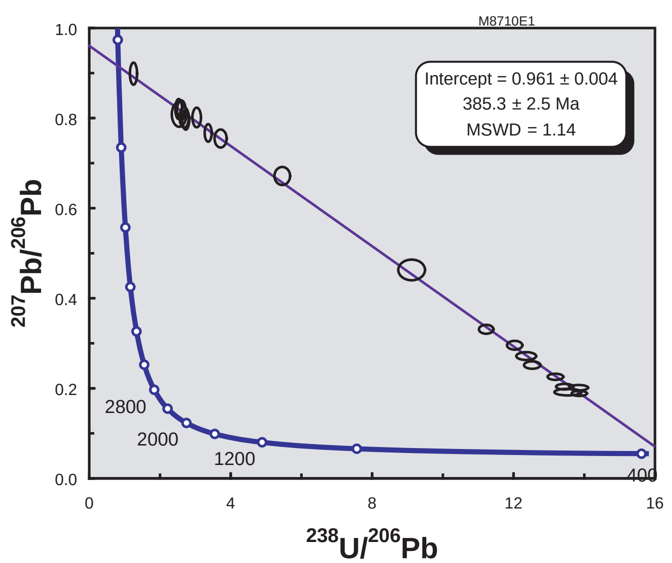

K1803C
Intercept = 0.912 ± 0.05
385.6 ± 3.3 Ma
MSWD = 1.1
~784 Ma
2000
1200
400
0.0
0.2
0.4
0.6
0.8
0
4
8
12
16
20
207Pb/206Pb
238U/206Pb

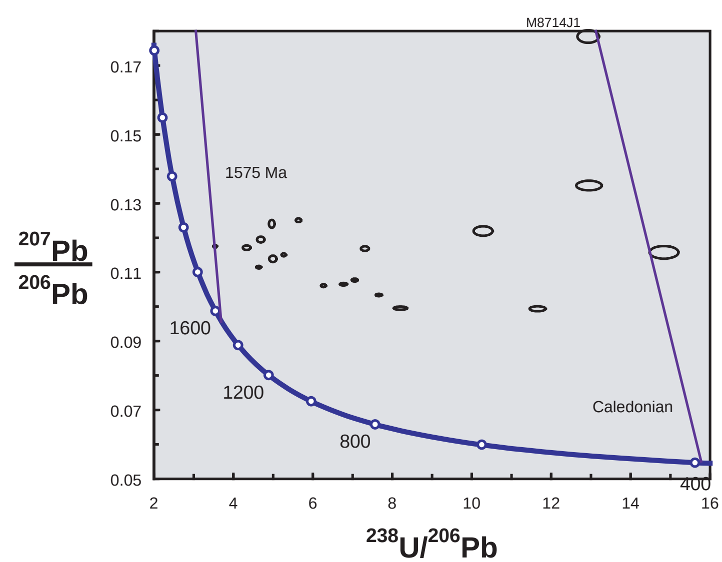

K7718I1
Intercept = 0.933 ± 0.004
403.4 ± 6.1 Ma
MSWD = 0.79
2800
2000
1200
400
0.0
0.2
0.4
0.6
0.8
1.0
0
4
8
12
16
207Pb/206Pb
238U/206Pb

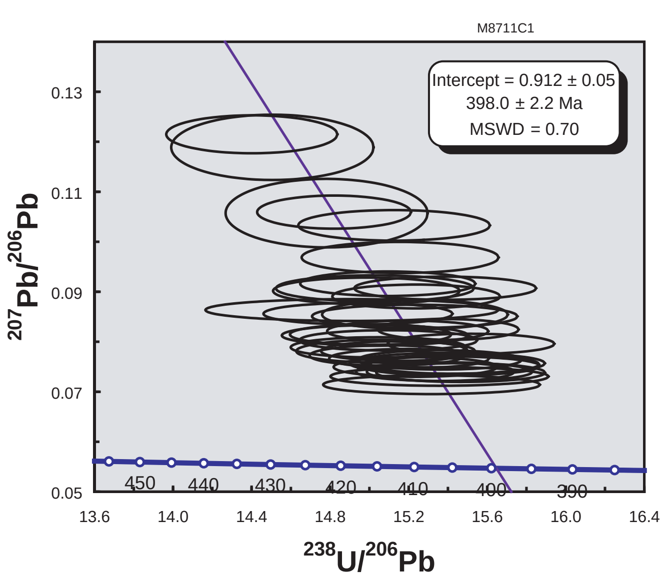

K5702D2
Intercept = 0.885 ± 0.003
385.5 ± 1.6 Ma
MSWD = 0.60
2000
1200
400
0.0
0.2
0.4
0.6
0.8
1.0
0
4
8
12
16
20
207Pb / 206Pb
238U/206Pb

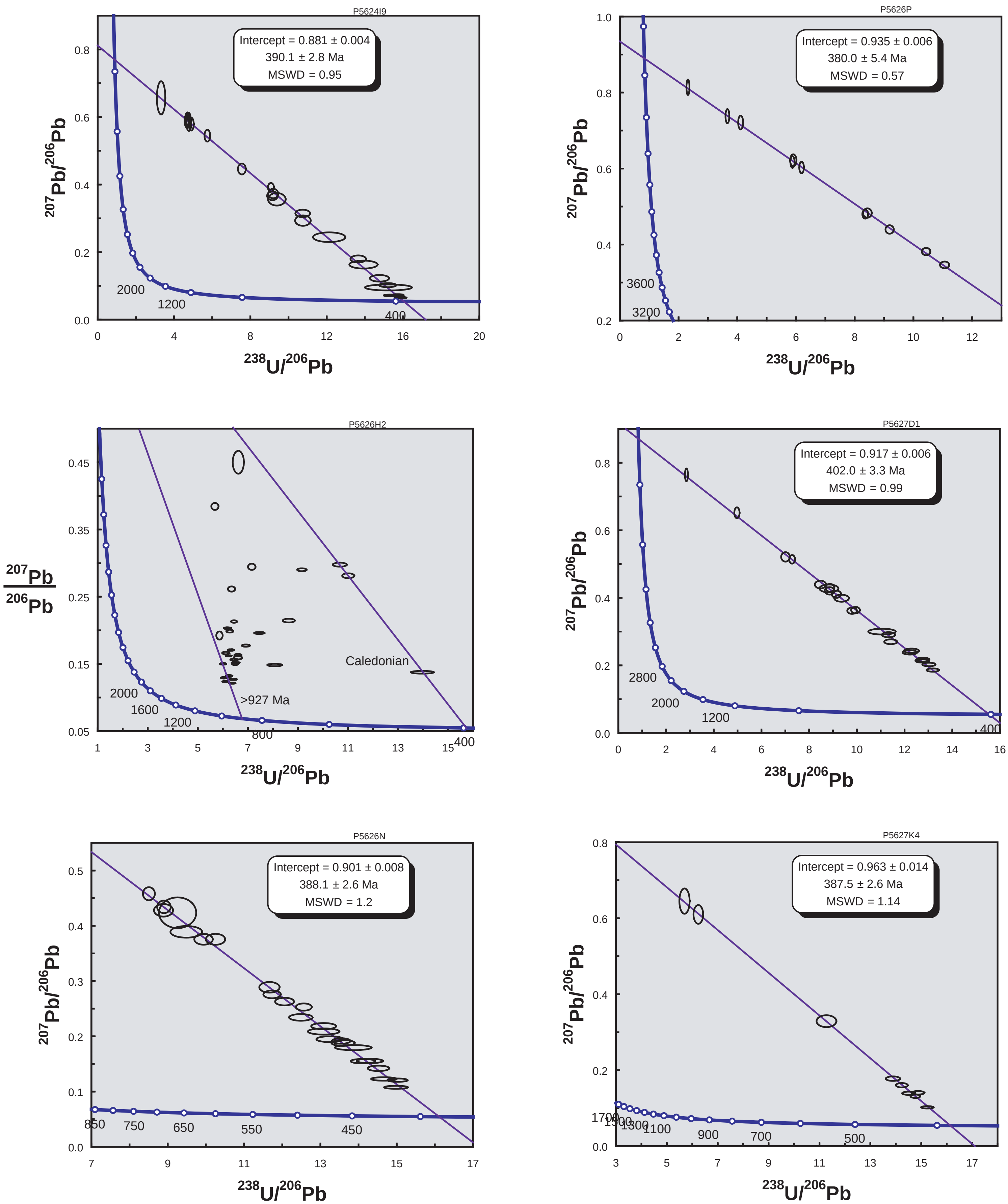

M8710A1
Intercept = 0.912 ± 0.010
399.5 ± 8.0 Ma
MSWD = 0.88
2800
2000
1200
0.0
0.2
0.4
0.6
1
3
5
7
9
11
13
^{207}Pb/^{206}Pb
^{238}U/^{206}Pb

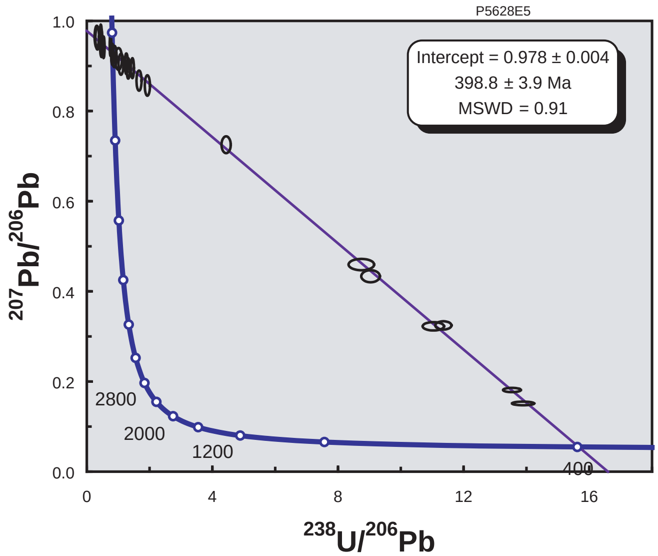

M8714G
1600
1352 Ma
1200
800
Caledonian
400
0.05
0.07
0.09
0.11
0.13
0.15
0.17
2
4
6
8
10
12
14
16
^{207}Pb / ^{206}Pb
^{238}U/^{206}Pb

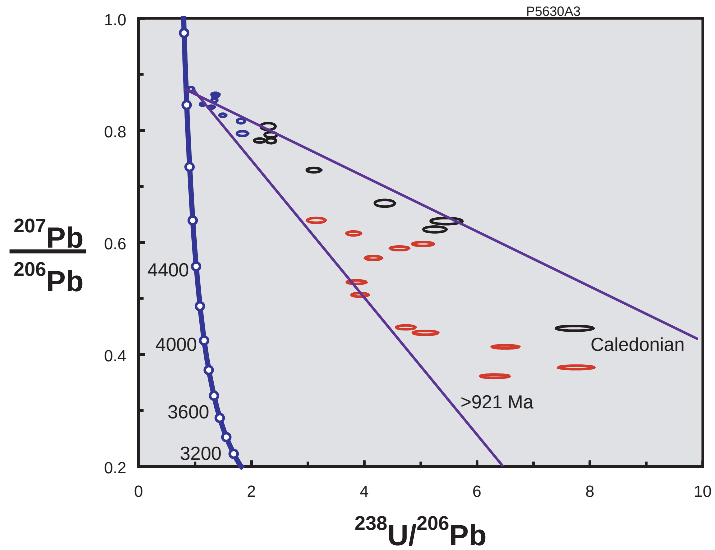

M8710E1
Intercept = 0.961 ± 0.004
385.3 ± 2.5 Ma
MSWD = 1.14
2800
2000
1200
400
0.0
0.2
0.4
0.6
0.8
1.0
0
4
8
12
16
^{207}Pb/^{206}Pb
^{238}U/^{206}Pb

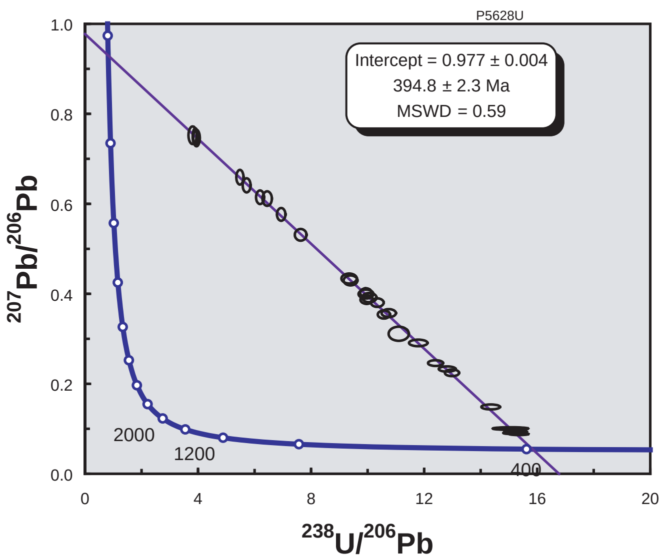

M8714J1
1575 Ma
1600
1200
800
Caledonian
400
0.05
0.07
0.09
0.11
0.13
0.15
0.17
2
4
6
8
10
12
14
16
^{207}Pb / ^{206}Pb
^{238}U/^{206}Pb

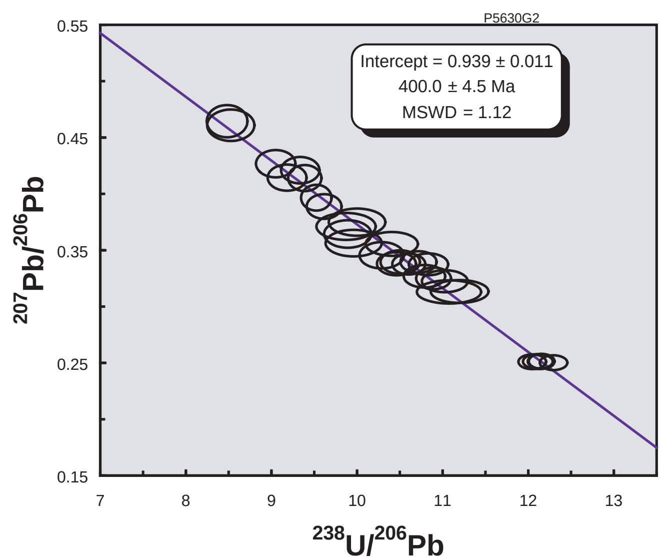

M8711C1
Intercept = 0.912 ± 0.05
398.0 ± 2.2 Ma
MSWD = 0.70
450
440
430
420
410
400
390
0.05
0.07
0.09
0.11
0.13
13.6
14.0
14.4
14.8
15.2
15.6
16.0
16.4
^{207}Pb/^{206}Pb
^{238}U/^{206}Pb

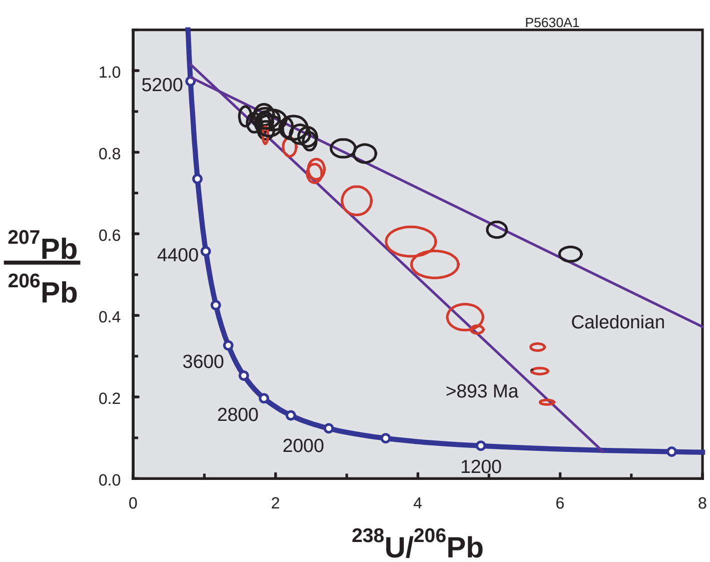

P5624I9
Intercept = 0.881 ± 0.004
390.1 ± 2.8 Ma
MSWD = 0.95
2000
1200
400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
P5626P
Intercept = 0.935 ± 0.006
380.0 ± 5.4 Ma
MSWD = 0.57
3600
3200
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
P5626H2
2000
1600
1200
800
400
>927 Ma
Caledonian
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
P5627D1
Intercept = 0.917 ± 0.006
402.0 ± 3.3 Ma
MSWD = 0.99
2800
2000
1200
400
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
P5626N
Intercept = 0.901 ± 0.008
388.1 ± 2.6 Ma
MSWD = 1.2
850
750
650
550
450
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$
P5627K4
Intercept = 0.963 ± 0.014
387.5 ± 2.6 Ma
MSWD = 1.14
1700
1500
1300
1100
900
700
500
$^{207}Pb/^{206}Pb$
$^{238}U/^{206}Pb$

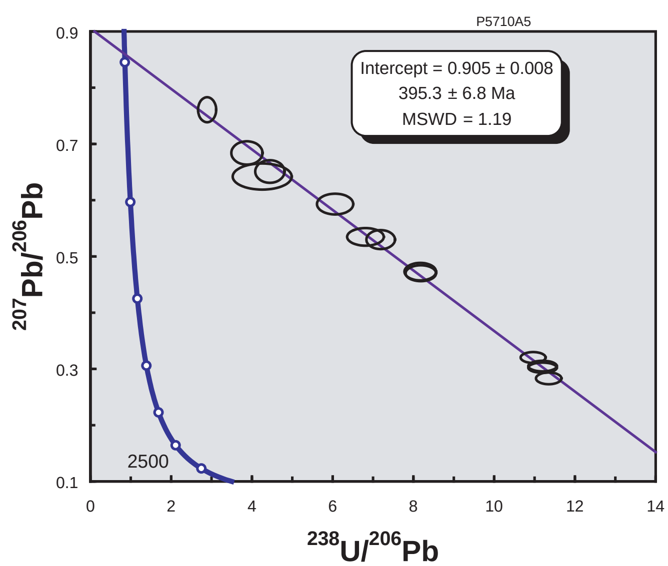

P5628E5
Intercept = 0.978 ± 0.004
398.8 ± 3.9 Ma
MSWD = 0.91
2800
2000
1200
400
1.0
0.8
0.6
0.4
0.2
0.0
0
4
8
12
16
207Pb/206Pb
238U/206Pb

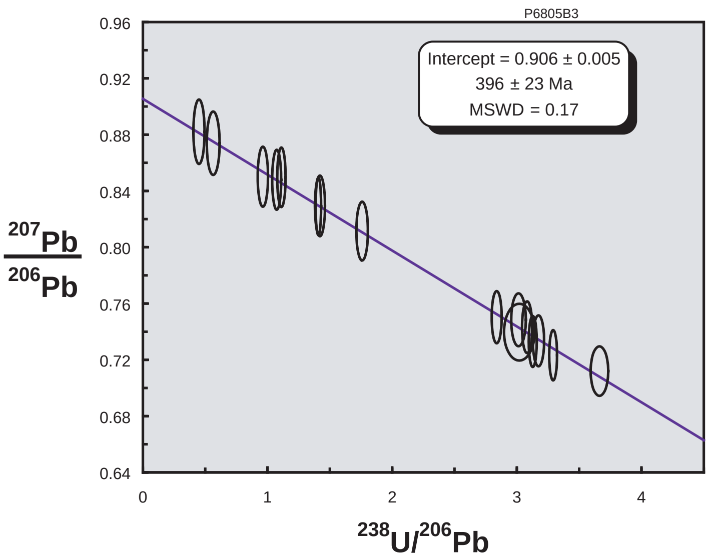

P5630A3
4400
4000
3600
3200
Caledonian
>921 Ma
1.0
0.8
0.6
0.4
0.2
0
2
4
6
8
10
207Pb/206Pb
238U/206Pb

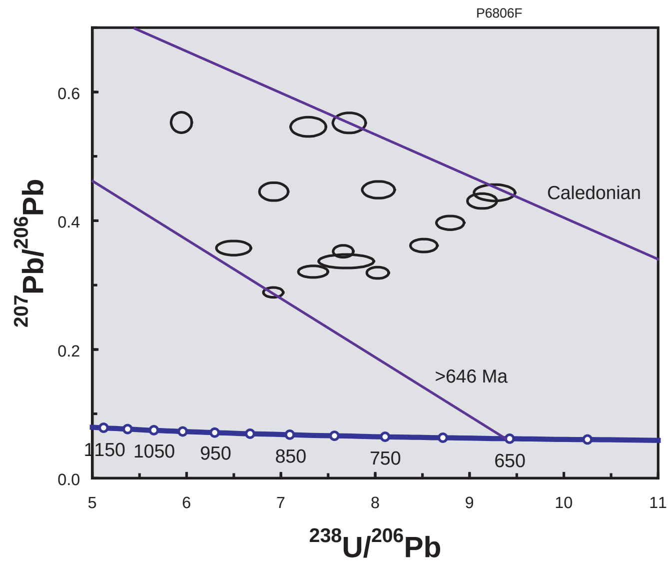

P5628U
Intercept = 0.977 ± 0.004
394.8 ± 2.3 Ma
MSWD = 0.59
2000
1200
400
1.0
0.8
0.6
0.4
0.2
0.0
0
4
8
12
16
20
207Pb/206Pb
238U/206Pb

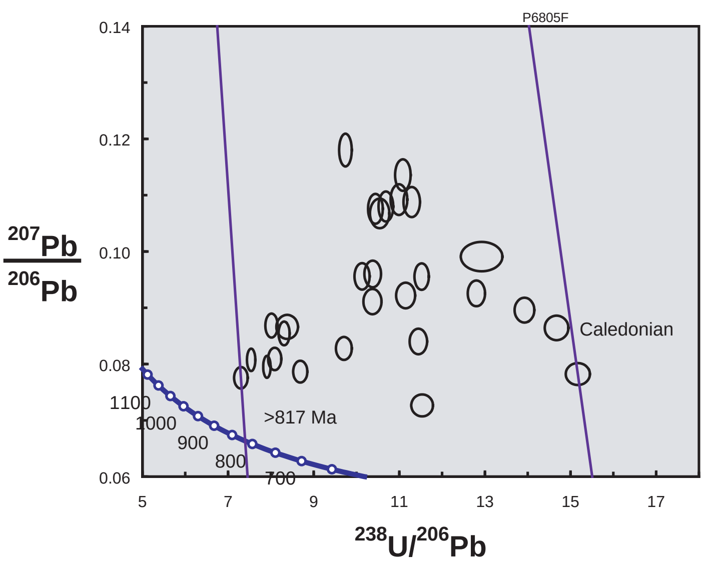

P5630G2
Intercept = 0.939 ± 0.011
400.0 ± 4.5 Ma
MSWD = 1.12
0.55
0.45
0.35
0.25
0.15
7
8
9
10
11
12
13
207Pb/206Pb
238U/206Pb

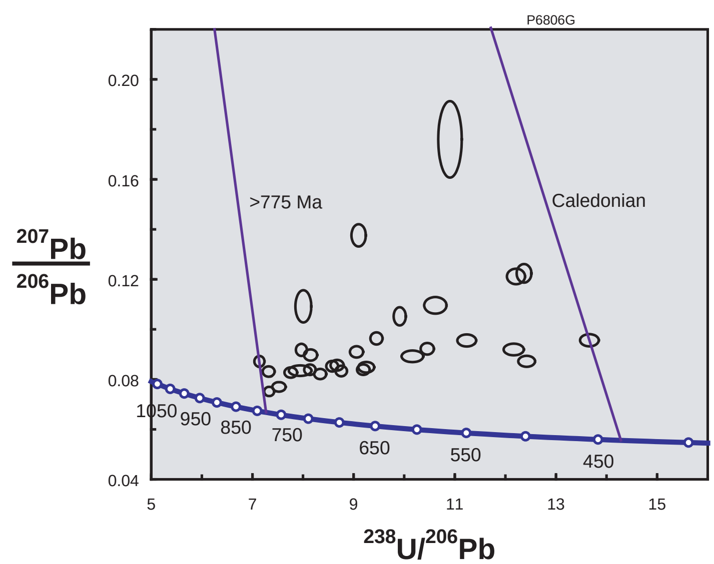

P5630A1
5200
4400
3600
2800
2000
1200
Caledonian
>893 Ma
1.0
0.8
0.6
0.4
0.2
0.0
0
2
4
6
8
207Pb/206Pb
238U/206Pb

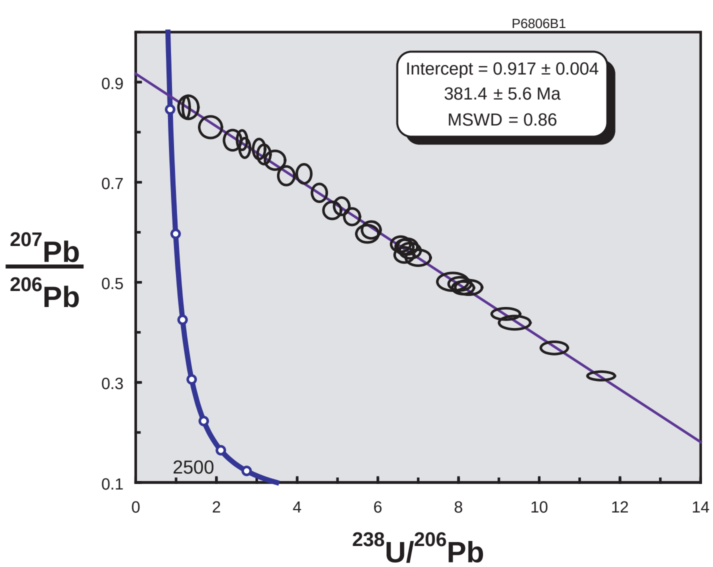

P5710A5
Intercept = 0.905 ± 0.008
395.3 ± 6.8 Ma
MSWD = 1.19
2500
0.9
0.7
0.5
0.3
0.1
0
2
4
6
8
10
12
14
207Pb/206Pb
238U/206Pb

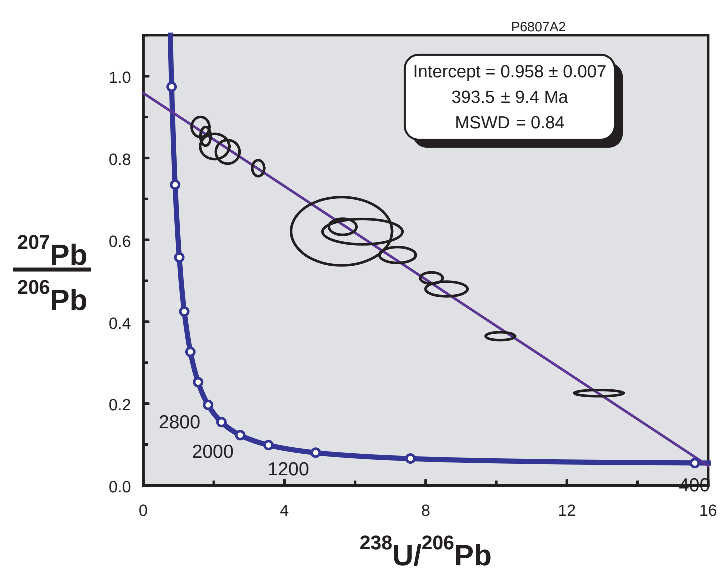

P6805B3
Intercept = 0.906 ± 0.005
396 ± 23 Ma
MSWD = 0.17
0.96
0.92
0.88
0.84
0.80
0.76
0.72
0.68
0.64
0
1
2
3
4
207Pb/206Pb
238U/206Pb

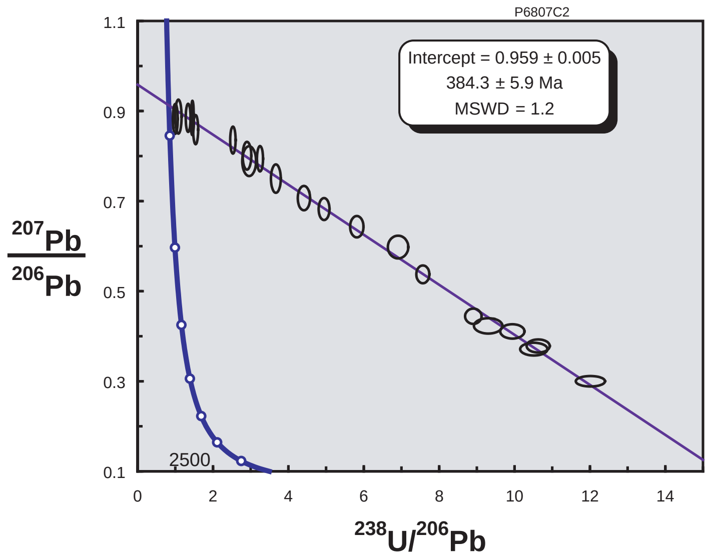

P6806F
Caledonian
>646 Ma
1150
1050
950
850
750
650
0.6
0.4
0.2
0.0
5
6
7
8
9
10
11
207Pb/206Pb
238U/206Pb

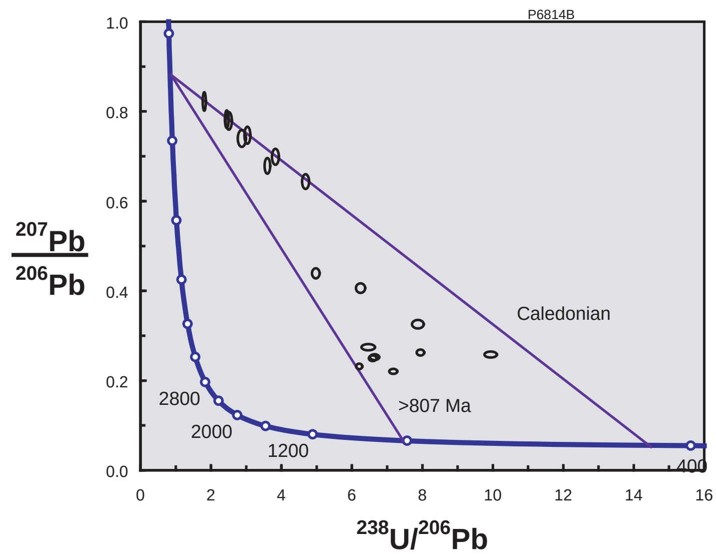

P6805F
Caledonian
>817 Ma
1100
1000
900
800
700
0.14
0.12
0.10
0.08
0.06
5
7
9
11
13
15
17
207Pb/206Pb
238U/206Pb

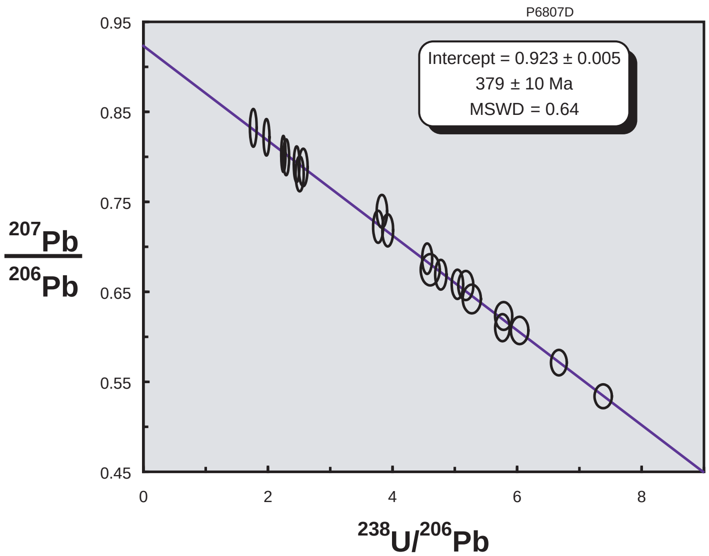

P6806G
>775 Ma
Caledonian
1050
950
850
750
650
550
450
0.20
0.16
0.12
0.08
0.04
5
7
9
11
13
15
207Pb/206Pb
238U/206Pb

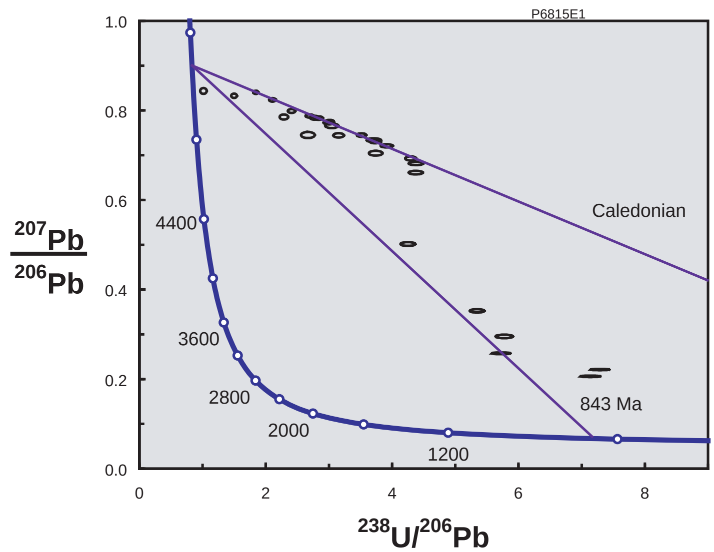

P6806B1
Intercept = 0.917 ± 0.004
381.4 ± 5.6 Ma
MSWD = 0.86
2500
0.9
0.7
0.5
0.3
0.1
0
2
4
6
8
10
12
14
207Pb/206Pb
238U/206Pb

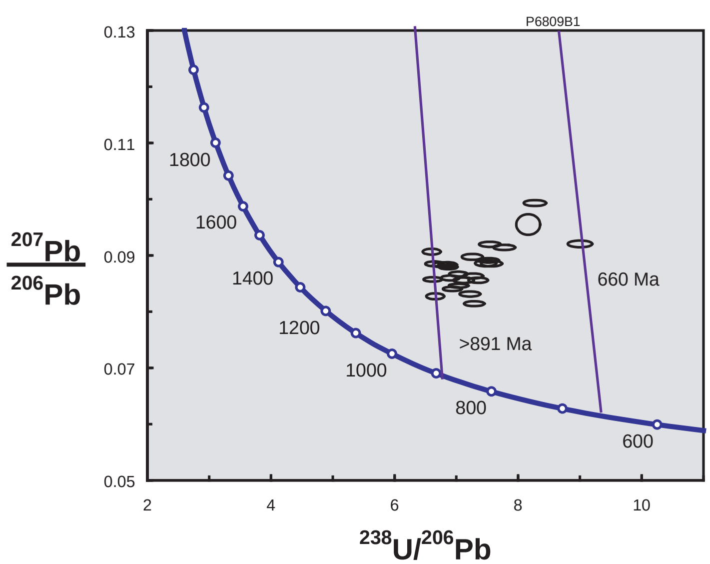

P6807A2
Intercept = 0.958 ± 0.007
393.5 ± 9.4 Ma
MSWD = 0.84
2800
2000
1200
400
1.0
0.8
0.6
0.4
0.2
0.0
0
4
8
12
16
207Pb/206Pb
238U/206Pb

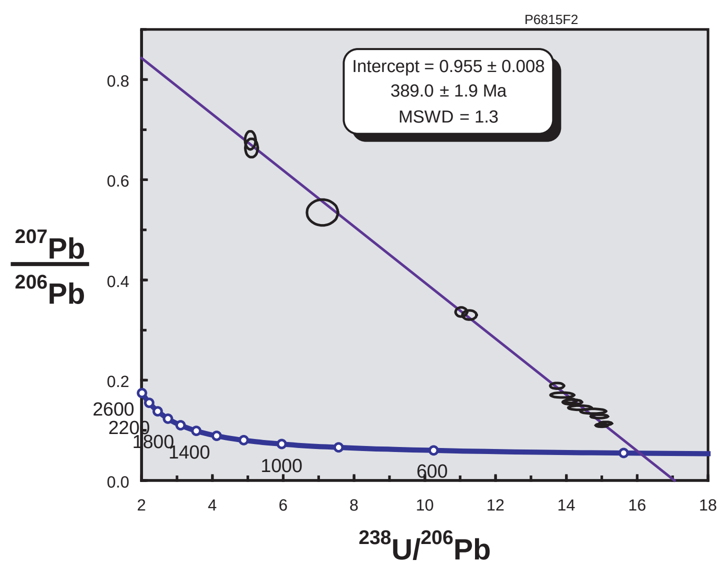

P6807C2
Intercept = 0.959 ± 0.005
384.3 ± 5.9 Ma
MSWD = 1.2
2500
207Pb/206Pb
238U/206Pb

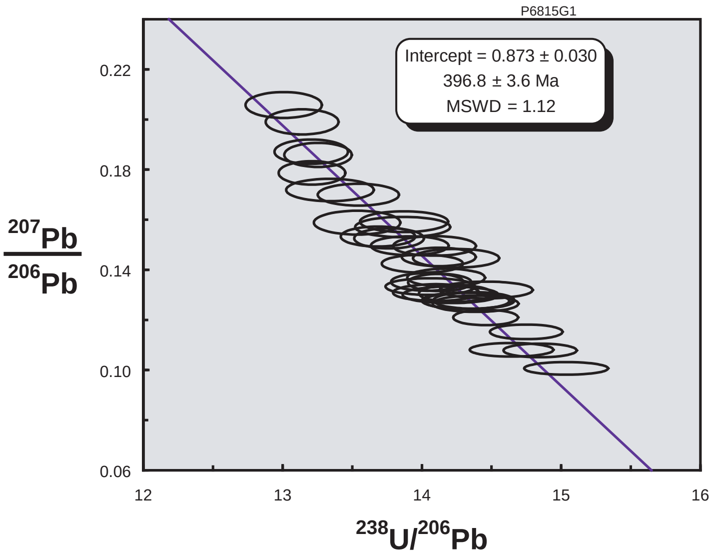

P6814B
Caledonian
2800
2000
1200
>807 Ma
400
207Pb/206Pb
238U/206Pb

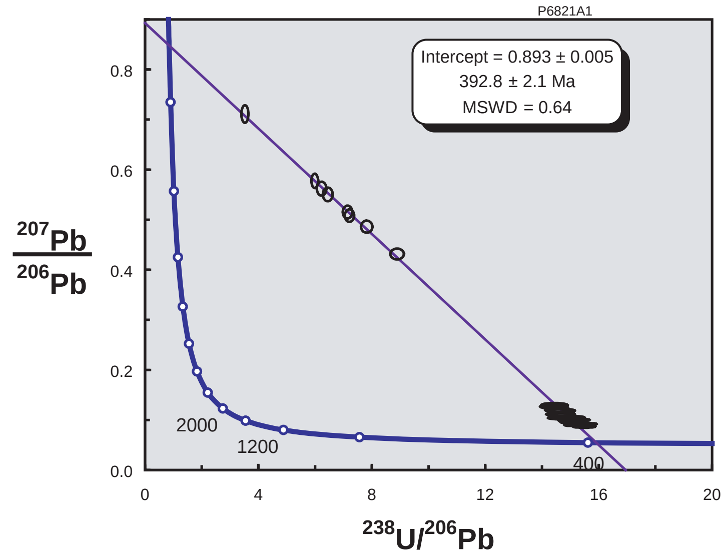

P6807D
Intercept = 0.923 ± 0.005
379 ± 10 Ma
MSWD = 0.64
207Pb/206Pb
238U/206Pb

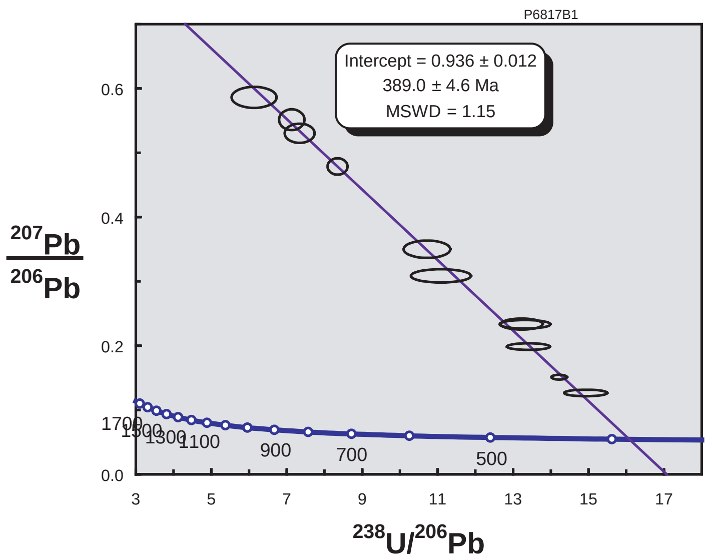

P6815E1
Caledonian
4400
3600
2800
2000
1200
843 Ma
207Pb/206Pb
238U/206Pb

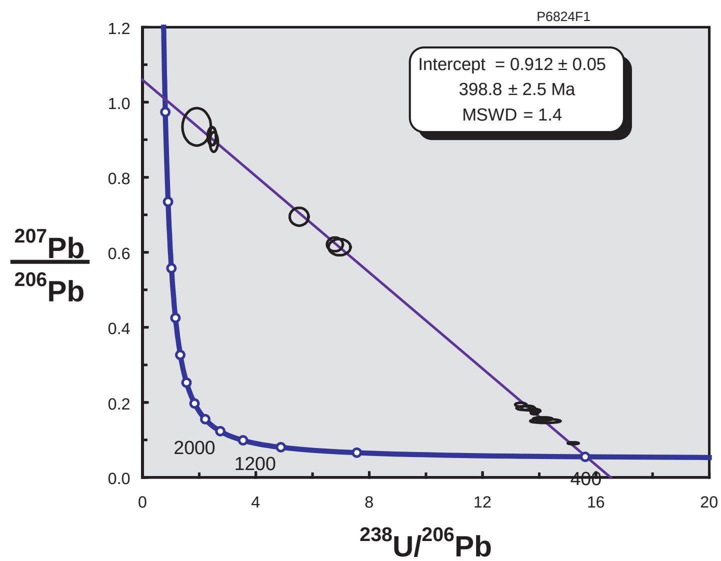

P6809B1
1800
1600
1400
1200
1000
800
600
>891 Ma
660 Ma
207Pb/206Pb
238U/206Pb

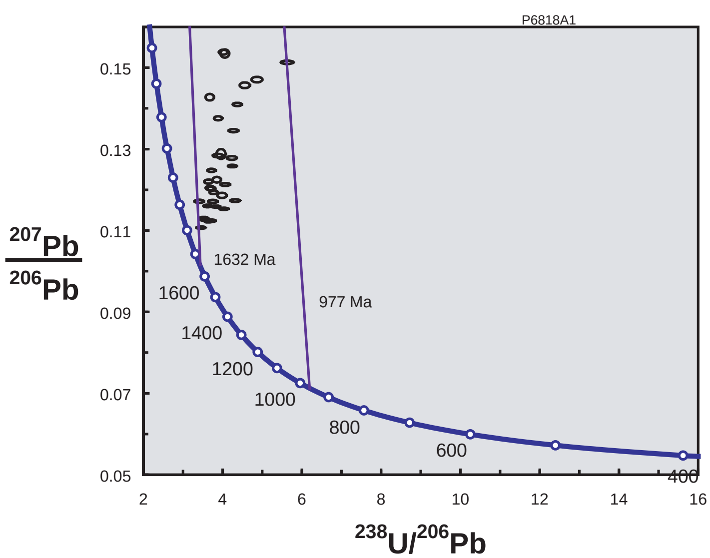

P6815F2
Intercept = 0.955 ± 0.008
389.0 ± 1.9 Ma
MSWD = 1.3
2600
2200
1800
1400
1000
600
207Pb/206Pb
238U/206Pb

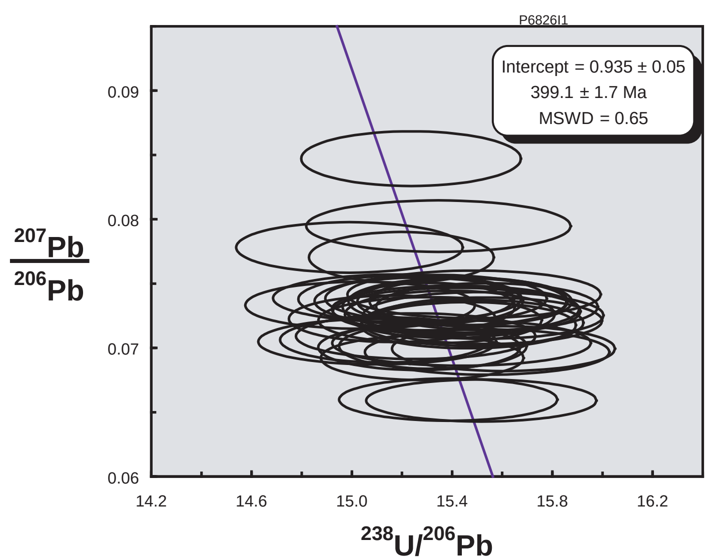

P6815G1
Intercept = 0.873 ± 0.030
396.8 ± 3.6 Ma
MSWD = 1.12
0.22
0.18
0.14
0.10
0.06
12
13
14
15
16
207Pb/206Pb
238U/206Pb

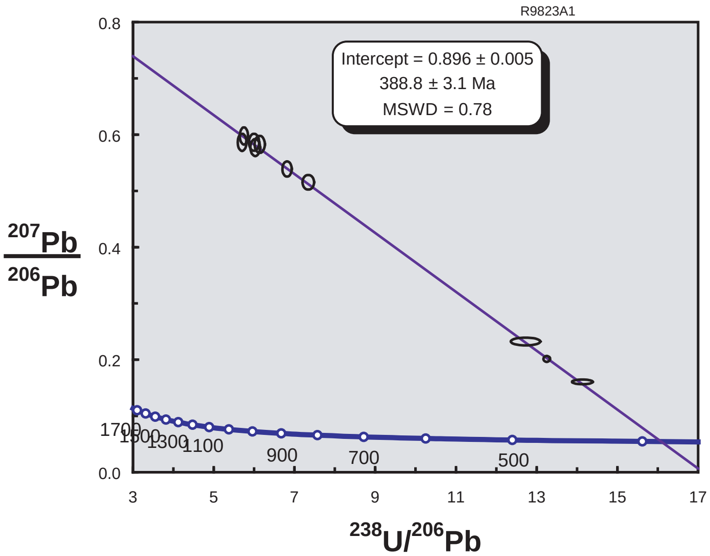

P6821A1
Intercept = 0.893 ± 0.005
392.8 ± 2.1 Ma
MSWD = 0.64
0.8
0.6
0.4
0.2
0.0
0
4
8
12
16
20
2000
1200
400
207Pb/206Pb
238U/206Pb

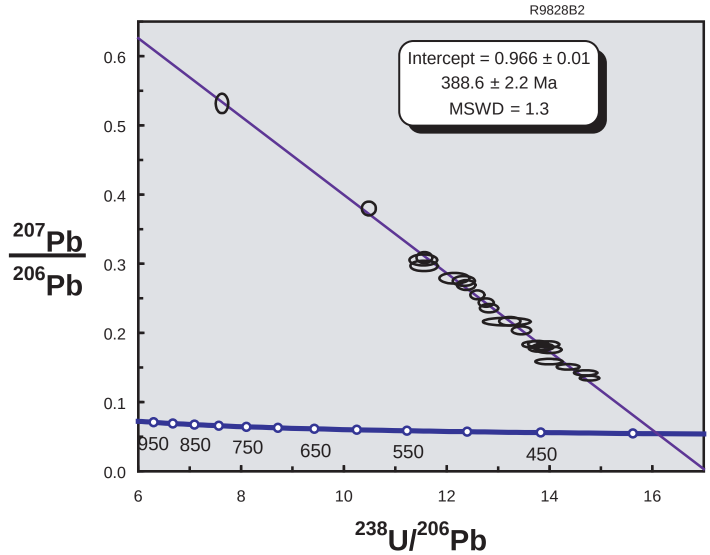

P6817B1
Intercept = 0.936 ± 0.012
389.0 ± 4.6 Ma
MSWD = 1.15
0.6
0.4
0.2
0.0
3
5
7
9
11
13
15
17
1700
1500
1300
1100
900
700
500
207Pb/206Pb
238U/206Pb

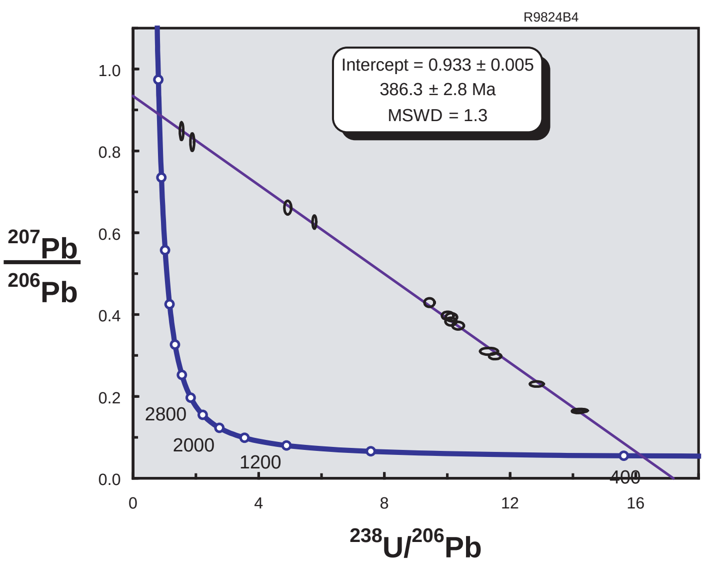

P6824F1
Intercept = 0.912 ± 0.05
398.8 ± 2.5 Ma
MSWD = 1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
4
8
12
16
20
2000
1200
400
207Pb/206Pb
238U/206Pb

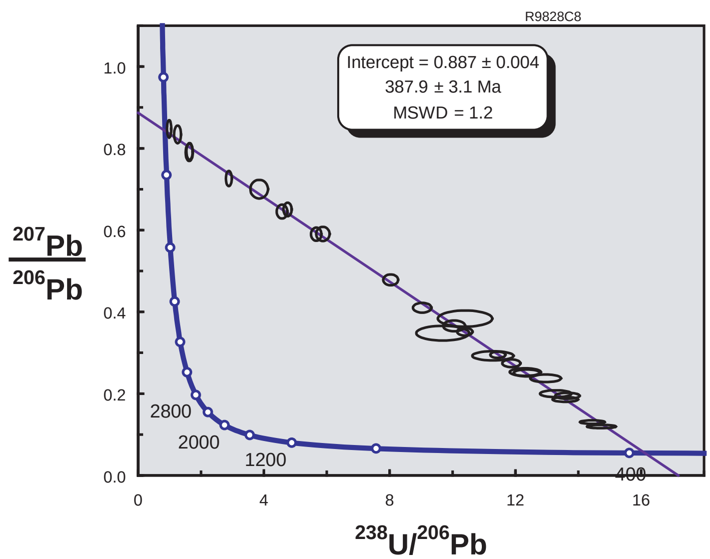

P6818A1
0.15
0.13
0.11
0.09
0.07
0.05
2
4
6
8
10
12
14
16
1632 Ma
977 Ma
1600
1400
1200
1000
800
600
400
207Pb/206Pb
238U/206Pb

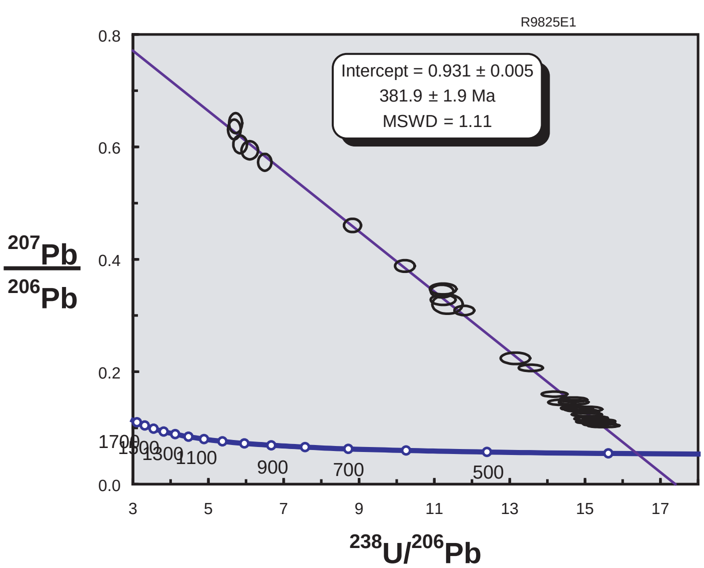

P6826I1
Intercept = 0.935 ± 0.05
399.1 ± 1.7 Ma
MSWD = 0.65
0.09
0.08
0.07
0.06
14.2
14.6
15.0
15.4
15.8
16.2
207Pb/206Pb
238U/206Pb

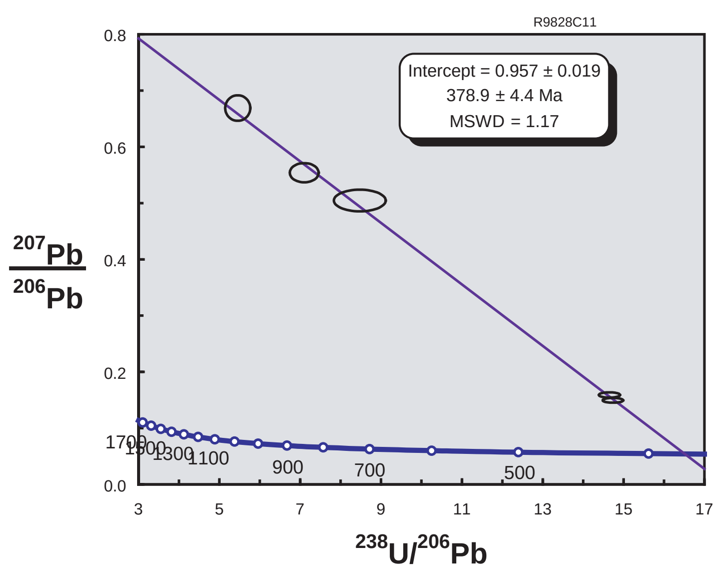

R9823A1
Intercept = 0.896 ± 0.005
388.8 ± 3.1 Ma
MSWD = 0.78
207Pb/206Pb
238U/206Pb
1700
1500
1300
1100
900
700
500

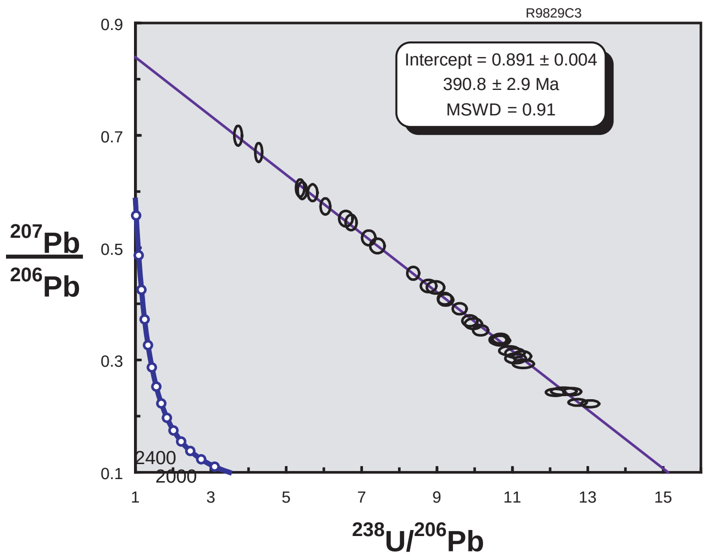

R9828B2
Intercept = 0.966 ± 0.01
388.6 ± 2.2 Ma
MSWD = 1.3
207Pb/206Pb
238U/206Pb
950
850
750
650
550
450

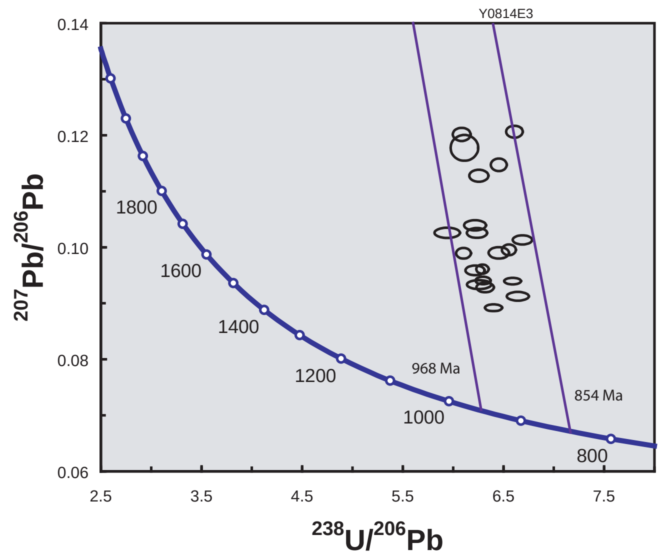

R9824B4
Intercept = 0.933 ± 0.005
386.3 ± 2.8 Ma
MSWD = 1.3
207Pb/206Pb
238U/206Pb
2800
2000
1200
400

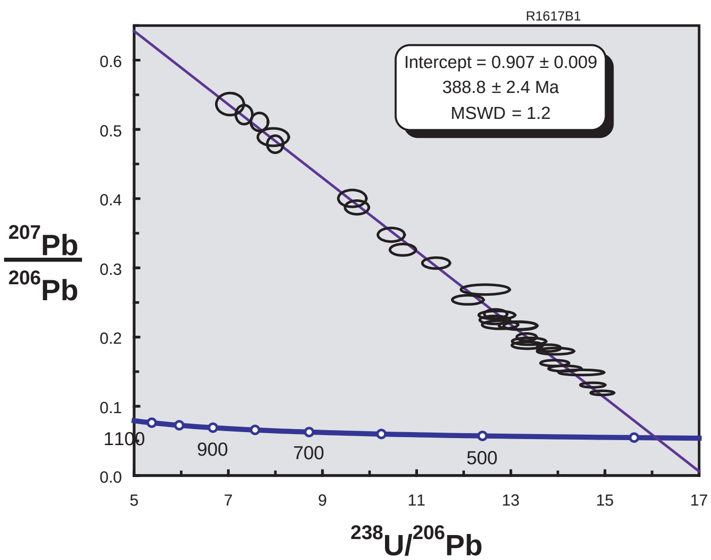

R9828C8
Intercept = 0.887 ± 0.004
387.9 ± 3.1 Ma
MSWD = 1.2
207Pb/206Pb
238U/206Pb
2800
2000
1200
400

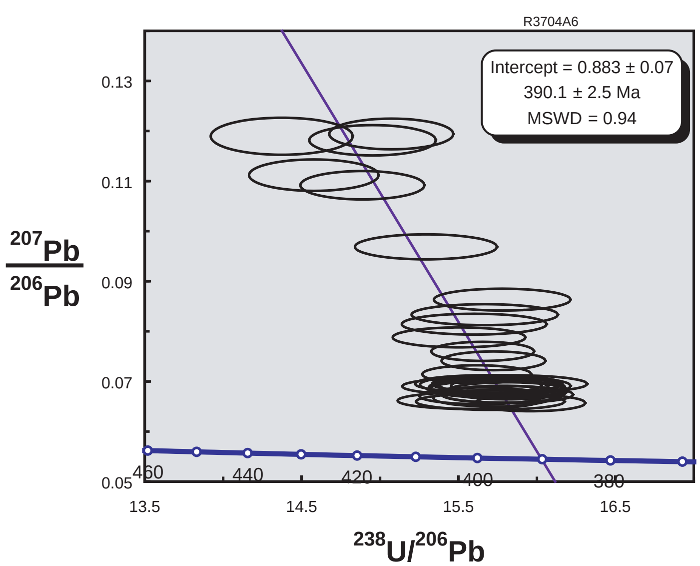

R9825E1
Intercept = 0.931 ± 0.005
381.9 ± 1.9 Ma
MSWD = 1.11
207Pb/206Pb
238U/206Pb
1700
1500
1300
1100
900
700
500


R9828C11
Intercept = 0.957 ± 0.019
378.9 ± 4.4 Ma
MSWD = 1.17
207Pb/206Pb
238U/206Pb
1700
1500
1300
1100
900
700
500


R9829C3
Intercept = 0.891 ± 0.004
390.8 ± 2.9 Ma
MSWD = 0.91
207Pb/206Pb
238U/206Pb
0.9
0.7
0.5
0.3
0.1
1
3
5
7
9
11
13
15
2400
2000


Y0814E3
207Pb/206Pb
238U/206Pb
0.14
0.12
0.10
0.08
0.06
2.5
3.5
4.5
5.5
6.5
7.5
1800
1600
1400
1200
1000
800
968 Ma
854 Ma


R1617B1
Intercept = 0.907 ± 0.009
388.8 ± 2.4 Ma
MSWD = 1.2
207Pb/206Pb
238U/206Pb
0.6
0.5
0.4
0.3
0.2
0.1
0.0
5
7
9
11
13
15
17
1100
900
700
500


R3704A6
Intercept = 0.883 ± 0.07
390.1 ± 2.5 Ma
MSWD = 0.94
207Pb/206Pb
238U/206Pb
0.13
0.11
0.09
0.07
0.05
13.5
14.5
15.5
16.5
460
440
420
400
380