

Supplemental data for Ducea et al., Late Cenozoic denudation and uplift rates in the Santa Lucia Mountains, California, consists of Table 1, (U-Th)/He analytical data from the Cone Peak transect, Santa Lucia Range, California.

**Table 1. (U-Th)/He analytical data from the Cone Peak transect, Santa Lucia Range, CA.**

Sample	Latitude (North)	Longitude (East)	Elev. (m)	Age* (Ma)	[U] (ppm)	[Th] (ppm)	[ <sup>4</sup> He] (nmol/g)	Mass ( $\mu$ g)	F <sub>t</sub>	Radius ( $\mu$ m)
1	36°00'51''	121°30'37''	152	2.27	4.64	10.74	0.07	30.4	0.81	65
2	36°01'14''	121°29'56''	330	3.59	4.12	4.95	0.09	99.5	0.88	98
2R				3.42	4.58	9.02	0.11	66.6	0.87	100
3	36°02'05''	121°29'10''	700	4.16	7.45	18.81	0.22	40.0	0.84	74
3R				2.70	11.48	33.53	0.21	12.4	0.75	46
4	36°02'15''	121°29'27''	780	4.02	2.12	4.25	0.05	47.8	0.80	64
5	36°02'56''	121°29'40''	1320	5.41	14.12	36.30	0.52	44.1	0.78	56
5R				5.20	16.22	29.98	0.52	56.6	0.81	65
6	36°03'05''	121°29'50''	1490	6.13	57.86	116.78	2.10	12.2	0.74	45
7	36°03'20''	121°29'38''	1510	9.92	10.01	17.21	0.54	14.5	0.72	44
Sur1	36°12'31''	121°44'12''	180	4.54	16.91	33.05	0.47	26.1	0.79	59
Sur1R				4.60	17.22	29.34	0.46	20.7	0.77	55

\*Corrected using F<sub>t</sub> parameter after method of Farley et al. (1996). Estimated analytical errors are 3% at 2 sigma. Aliquots consist of multiple grains (5-15 crystals) using furnace gas extraction method described by House et al. (2002). Replicate analyses indicated by "R" after sample ID. For each helium age determination, we analyzed aliquots consisting of 5-15 grains in the 88-200  $\mu$ m size-range, with an average grain size of 130 microns. Despite the wide range in radii, the corresponding closure temperatures range is between only 71-82°C, with a closure temperature of 76°C corresponding to the mean grain size (Wolf et al., 1996; Farley, 2000). The relevant diffusion parameters used here are from Farley (2000): E<sub>0</sub>=33 kcal/mol, and D<sub>0</sub>=50 cm<sup>2</sup>/sec. With one exception, replicate ages obtained on four samples agree within the estimated analytical uncertainty. Only sample 3 (700 m) yields ages that fall outside of this range, but these appear to be correlated with grain size: two aliquots with grain radii of 46 and 74 microns yield ages of 2.7 and 4.2 Ma, respectively. Assuming a cooling rate of 10°C/m.y., the mean radii of these two aliquots (46 and 74 microns) yield closure temperatures of 71 and 78°C, respectively, which may account for some of the range in the measured ages (Farley, 2000; Reiners and Farley, 2001).

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