

Supporting information for

Where did the Arizona-plano go? Protracted thinning via upper- to lower-crustal processes

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Table S2: Zircon fission track data tables. N_s = number of spontaneous tracks, N_i = number of induced tracks, N_g = number of graticules counted, ρ_s = density of spontaneous tracks in cm^2 , ρ_i = density of induced tracks in cm^2 , and U ppm = estimate of ^{238}U from number of tracks counted.

Sample Number **PP-02** Mineral **Zircon**
 Position (#) 7 Glass (U pr 49.4
 Area of Graticule Squar 6.400E-07 Irradiation UA-Z13
 No. of Crystals 20 Analyst SNT
 Zeta Factor ± Error 116.0 1.3 Count Date 23.11.2020
 Rho d (% Relative Error) 5.730E+05 1.65 9462 Locality
 N d 3667 Rock Type

N s	N i	N g	p s	p i	p s / p i	U ppm	Age (Ma)	Age error	50% Age	" +95% "	" -95% "
40	71	60	1.042E+06	1.849E+06	0.5634	159.4	18.70	3.71	19.10	8.81	6.73
44	71	15	4.583E+06	7.396E+06	0.6197	637.6	20.56	3.97	20.97	9.37	7.18
67	108	25	4.188E+06	6.750E+06	0.6204	581.9	20.58	3.23	20.85	7.31	5.90
59	91	30	3.073E+06	4.740E+06	0.6484	408.6	21.51	3.62	21.83	8.32	6.59
34	59	15	3.542E+06	6.146E+06	0.5763	529.9	19.12	4.14	19.61	10.02	7.45
63	108	30	3.281E+06	5.625E+06	0.5833	484.9	19.36	3.09	19.62	7.02	5.66
36	59	50	1.125E+06	1.844E+06	0.6102	159.0	20.25	4.30	20.74	10.40	7.74
54	91	30	2.813E+06	4.740E+06	0.5934	408.6	19.69	3.41	20.01	7.85	6.21
43	68	25	2.688E+06	4.250E+06	0.6324	366.4	20.98	4.11	21.41	9.75	7.43
34	56	28	1.897E+06	3.125E+06	0.6071	269.4	20.15	4.40	20.66	10.71	7.90
75	120	60	1.953E+06	3.125E+06	0.6250	269.4	20.74	3.08	20.98	6.91	5.64
92	138	36	3.993E+06	5.990E+06	0.6667	516.4	22.12	3.01	22.33	6.66	5.52
95	159	70	2.121E+06	3.549E+06	0.5975	306.0	19.83	2.60	20.01	5.70	4.79
49	97	60	1.276E+06	2.526E+06	0.5052	217.8	16.77	2.96	17.05	6.81	5.41
39	59	60	1.016E+06	1.536E+06	0.6610	132.5	21.93	4.55	22.43	10.96	8.18
63	115	50	1.969E+06	3.594E+06	0.5478	309.8	18.18	2.87	18.43	6.49	5.27
55	89	50	1.719E+06	2.781E+06	0.6180	239.8	20.51	3.54	20.83	8.17	6.45
145	235	60	3.776E+06	6.120E+06	0.6170	527.6	20.47	2.20	20.60	4.68	4.06
50	103	70	1.116E+06	2.299E+06	0.4854	198.2	16.11	2.80	16.38	6.41	5.12
38	59	49	1.212E+06	1.881E+06	0.6441	162.2	21.37	4.47	21.87	10.77	8.03
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1175	1956	873	2.103E+06	3.501E+06	0.6007	301.8	19.93	0.84	19.95	1.49	1.42

Pooled Ratio 0.6007 ± 0.0252
 Mean Ratio 0.6011 ± 0.0106
 Pooled Age 19.93 ± 0.84 1 S.E.
 Mean Crystal Age 19.95 ± 0.35 1 S.E.
 Binomial Age 19.95 + 1.49 "+95%"
 - 1.42 "-95%"

Central Age 19.93 ± 0.84

Age Dispersion 0.00 %
 Chi-squared 4.489 with 19 degrees of freedom

Sample Number **PP-03** Mineral **Zircon**
 Position (#) 8 Glass (U pr 49.4
 Area of Graticule Squar 6.400E-07 Irradiation UA-Z13
 No. of Crystals 15 Analyst SNT
 Zeta Factor ± Error 116.0 1.3 Count Date 23.11.2020
 Rho d (% Relative Error) 5.707E+05 1.65 9442 Locality
 N d 3653 Rock Type

N s	N i	N g	p s	p i	p s / p i	U ppm	Age (Ma)	Age error	50% Age	" +95% "	" -95% "
39	71	9	6.771E+06	1.233E+07	0.5493	1067.0	18.16	3.64	18.55	8.63	6.59
35	63	8	6.836E+06	1.230E+07	0.5556	1065.1	18.36	3.89	18.81	9.36	7.02
36	54	12	4.688E+06	7.031E+06	0.6667	608.6	22.03	4.76	22.58	11.60	8.53
34	57	6	8.854E+06	1.484E+07	0.5965	1284.9	19.71	4.29	20.22	10.42	7.71
68	123	12	8.854E+06	1.602E+07	0.5528	1386.3	18.27	2.79	18.50	6.25	5.11
53	97	12	6.901E+06	1.263E+07	0.5464	1093.3	18.06	3.11	18.35	7.13	5.67
35	62	12	4.557E+06	8.073E+06	0.5645	698.8	18.66	3.96	19.12	9.55	7.15
39	56	8	7.617E+06	1.094E+07	0.6964	946.8	23.01	4.82	23.54	11.68	8.65
65	99	9	1.128E+07	1.719E+07	0.6566	1487.8	21.70	3.49	21.99	7.95	6.37
82	139	15	8.542E+06	1.448E+07	0.5899	1253.3	19.50	2.74	19.70	6.08	5.04
109	174	12	1.419E+07	2.266E+07	0.6264	1961.1	20.70	2.56	20.87	5.57	4.72
94	170	16	9.180E+06	1.660E+07	0.5529	1437.0	18.28	2.38	18.44	5.20	4.39
104	169	15	1.083E+07	1.760E+07	0.6154	1523.8	20.34	2.57	20.51	5.60	4.73
57	78	12	7.422E+06	1.016E+07	0.7308	879.1	24.14	4.23	24.53	9.85	7.67
60	103	12	7.813E+06	1.341E+07	0.5825	1160.9	19.25	3.15	19.53	7.18	5.76
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
910	1515	170	8.364E+06	1.392E+07	0.6007	1205.3	19.85	0.92	19.87	1.69	1.60

Pooled Ratio 0.6007 ± 0.0279
 Mean Ratio 0.6055 ± 0.0151

Pooled Age 19.85 ± 0.92 1 S.E.
 Mean Crystal Age 20.01 ± 0.50 1 S.E.
Binomial Age 19.87 + 1.69 " +95% "
- 1.60 " -95% "

Central Age 19.85 ± 0.92

Age Dispersion 0.00 %
Chi-squared 3.978 with 14 degrees of freedom

Sample Number **PP-01**
 Position (#) 6
 Area of Graticule Square 6.400E-07
 No. of Crystals 10
 Zeta Factor ± Error 116.0 1.3
 Rho d (% Relative Error) 5.752E+05 1.65 9481
 N d 3681

Mineral **Zircon**
 Glass (U ppm) 49.4
 Irradiation UA-Z13
 Analyst SNT
 Count Date 23.11.2020
 Locality
 Rock Type

N s	N i	N g	p s	p i	p s / p i	U ppm	Age (Ma)	Age error	50% Age	" +95% "	" -95% "
28	60	16	2.734E+06	5.859E+06	0.4667	503.2	15.55	3.57	16.01	8.71	6.45
25	50	6	6.510E+06	1.302E+07	0.5000	1118.3	16.66	4.09	17.22	10.20	7.34
51	79	9	8.854E+06	1.372E+07	0.6456	1177.9	21.50	3.89	21.87	9.06	7.05
17	27	18	1.476E+06	2.344E+06	0.6296	201.3	20.97	6.51	22.07	17.78	11.33
24	52	10	3.750E+06	8.125E+06	0.4615	697.8	15.38	3.81	15.91	9.47	6.84
28	47	12	3.646E+06	6.120E+06	0.5957	525.6	19.84	4.75	20.46	11.86	8.49
25	38	20	1.953E+06	2.969E+06	0.6579	255.0	21.91	5.66	22.69	14.52	10.01
26	44	6	6.771E+06	1.146E+07	0.5909	984.1	19.68	4.88	20.34	12.31	8.70
20	34	8	3.906E+06	6.641E+06	0.5882	570.3	19.59	5.54	20.45	14.54	9.75
41	75	15	4.271E+06	7.813E+06	0.5467	671.0	18.21	3.56	18.59	8.39	6.45
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
285	506	120	3.711E+06	6.589E+06	0.5632	565.8	18.76	1.44	18.82	2.91	2.65

Pooled Ratio 0.5632 ± 0.0432
 Mean Ratio 0.5683 ± 0.0227
 Pooled Age 18.76 ± 1.44 1 S.E.
 Mean Crystal Age 18.93 ± 0.76 1 S.E.
 Binomial Age **18.82** + **2.91** " +95% "
 - **2.65** " -95% "

Central Age 18.76 ± 1.44

Age Dispersion **0.00** %
 Chi-squared **2.780** with 9 degrees of freedom