Appendix

Sample Preparation and Analytical Method

For zircon U-Pb dating by ion microprobe, samples were crushed, sieved, and concentrated by wet settling and magnetic separation, followed by hand picking under a binocular microscope. Four polished grain mounts were prepared by placing zircon grains in epoxy along with fragments of reference zircon FC1 (1099 Ma; Paces and Miller, 1993), polished to expose grain centers, cleaned to eliminate surface contamination by common lead, and coated with 100 Angstroms of high-purity gold. Grains were imaged by cathodoluminescence (CL) and electron backscattering (BSE) with a JEOL JSM–5900LV Scanning Electron Microscope (SEM) equipped with a Gatan MiniCL detector, at the National Institute of Polar Research (NIPR), Tokyo. Spots on the four mounts were analysed in separately calibrated sessions by Sensitive High-Resolution Ion Microprobe (SHRIMP-II) at NIPR, using a primary O_2^- ion beam with a cuurent of 5-11Na on the mount surface to produce a 25-30 μm long, flat-floored oval pit. Secondary ionisation was measured on a single electron multiplier on mass stations 196 (Zr_2O) through to 254 (UO), with a mass resolution of >5000 for $^{238}U^{16}O$ and a sensitivity on ^{206}Pb of 17-21 cps per ppm per nA of primary current. Mass stations were measured through 7 cycles (6 for mount 4), including count times of 7 or 10s per cycle for ^{204}Pb, background (at 204.04amu) and ^{206}Pb, and 15 or 20s for ^{207}Pb. Reduction of raw data for standards and samples was performed using the SQUID v.1.12a (Ludwig 2001), and Isoplot v.3.6 (Ludwig 2008) add-ins for Microsoft Excel 2003. Abundance of U was calibrated against zircon standard SL13 (238 ppm), provided by the Australian National University. In each session, U-Pb isotopic ratios were calibrated against 29-34 measurements of FC1. Robust means of $^{207}Pb/^{206}Pb$ ages were within 2 sigma error of the calibration age of 1099Ma. Two sigma errors on the mean of U-Pb calibration

ratios were 0.26, 0.40, 0.31, and 0.18% for mounts 1 through 4, respectively. These are not needed for age calculations in each mount, but are provided here if data need to be combined with results elsewhere. Spot-to-spot errors on the standard were added in quadrature to errors on pooled ages. Corrections for common Pb on U-Pb ratios and ages for were done with common Pb estimated from ^{204}Pb counts and the Stacey and Kramers (1975) common Pb model for the approximate U-Pb age for each analysis. These include Concordia ages, which take into account both equivalence of data and discordance between mean ^{206}Pb/^{238}U and ^{207}Pb/^{206}Pb ages (Ludwig, 2003). Where appropriate, means of pooled ^{207}Pb/^{206}Pb ages or concordia intercept ages of Model 2 linear regressions on Tera-Wasserburg plots were used instead. Individual ratios and ages are quoted at one sigma and plotted at two sigma, whereas pooled ages are quoted at 95% confidence.

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TABLE 2. ZIRCON SENSITIVE HIGH-RESOLUTION ION MICROPROBE
ANALYSES AND APPARENT AGES FROM SAMPLES OF DOMAIN 1A, EASTERN GHATS BELT

						Radiogenic ratios (^{204}Pb corrected)								Apparent ages (Ma)				
Spot	$^{206}Pb_c$%	U (ppm)	Th (ppm)	Th/U	^{206}Pb* (ppm)	$^{238}U/^{206}Pb$	±%	$^{207}Pb/^{206}Pb$	±%	$^{207}Pb/^{235}U$	±%	$^{206}Pb/^{238}U$	±%	$^{206}Pb/^{238}U$	1σ error	$^{207}Pb/^{206}Pb$	1σ error	% Disc
Sample EG-Kdp1																		
Overgrowth domain																		
11.1	0.00	2536	70	0.03	632	3.450	1.01	0.099	0.20	3.974	1.03	0.290	1.01	1641	15	1614	4	–2
Oscillatory/planar-zoned domain																		
1.1	0.04	1378	22	0.02	354	3.342	1.04	0.104	0.27	4.285	1.07	0.299	1.04	1687	15	1695	5	0
2.1	0.03	1568	169	0.11	371	3.631	1.23	0.101	0.26	3.817	1.26	0.275	1.23	1568	17	1633	5	4
3.1	0.18	1223	536	0.45	319	3.295	0.94	0.106	0.31	4.436	0.99	0.303	0.94	1708	14	1732	6	1
5.1	0.05	231	104	0.47	62	3.201	1.33	0.108	0.73	4.663	1.52	0.312	1.33	1753	20	1770	13	1
6.1	0.02	866	341	0.41	229	3.247	1.01	0.108	0.33	4.577	1.06	0.308	1.01	1731	15	1762	6	2
7.1	0.01	1353	422	0.32	369	3.148	0.93	0.108	0.26	4.722	0.96	0.318	0.93	1778	14	1763	5	–1
10.1	0.03	371	125	0.35	87	3.664	1.32	0.103	0.82	3.866	1.55	0.273	1.32	1556	18	1674	15	8
12.1	0.01	1726	715	0.43	480	3.087	1.02	0.107	0.22	4.798	1.04	0.324	1.02	1809	16	1756	4	–3
13.1	0.01	983	283	0.30	272	3.111	0.94	0.108	0.36	4.767	1.01	0.321	0.94	1797	15	1759	7	–2
14.1	0.05	492	213	0.45	133	3.178	1.14	0.107	0.48	4.646	1.24	0.315	1.14	1764	18	1751	9	–1
15.1	0.02	1108	331	0.31	303	3.142	1.14	0.108	0.44	4.718	1.22	0.318	1.14	1781	18	1758	8	–1
16.1	0.04	699	10	0.01	183	3.275	0.95	0.105	0.54	4.404	1.09	0.305	0.95	1718	14	1707	10	–1
17.1	0.04	822	884	1.11	228	3.105	0.95	0.102	0.38	4.527	1.02	0.322	0.95	1800	15	1660	7	–8
18.1	0.24	104	69	0.69	27	3.263	1.13	0.105	1.12	4.456	1.59	0.306	1.13	1723	17	1723	21	0
19.1	0.02	2058	164	0.08	560	3.159	0.92	0.105	0.23	4.592	0.95	0.317	0.92	1773	14	1718	4	–3
Sample EG-Kdp4																		
Bright- and moderate-CL domain																		
4.1	0.21	115	173	1.56	28	3.482	0.71	0.099	1.16	3.901	1.36	0.287	0.71	1627	10	1596	22	–2
6.1	0.42	177	173	1.01	44	3.437	0.66	0.098	1.01	3.921	1.21	0.291	0.66	1646	10	1581	19	–4
8.1	0.28	102	152	1.53	25	3.487	0.75	0.098	1.25	3.865	1.46	0.287	0.75	1625	11	1581	23	–3
9.1	0.05	206	154	0.77	50	3.518	0.60	0.099	0.70	3.882	0.92	0.284	0.60	1613	9	1606	13	0
11.1	0.12	283	288	1.05	70	3.478	0.59	0.099	0.63	3.940	0.86	0.288	0.59	1629	8	1612	12	–1
15.1	0.03	254	160	0.65	63	3.481	0.59	0.099	0.66	3.937	0.89	0.287	0.59	1628	9	1613	12	–1
17.1	–0.13	104	153	1.51	27	3.359	0.89	0.101	1.30	4.134	1.58	0.298	0.89	1680	13	1637	24	–3
19.1	0.06	234	130	0.57	57	3.534	0.59	0.098	0.71	3.820	0.93	0.283	0.59	1606	8	1585	13	–1
29.1	0.02	133	160	1.24	33	3.488	0.69	0.099	0.85	3.895	1.10	0.287	0.69	1625	10	1597	16	–2
Dark-CL domain																		
3.1	–0.01	876	98	0.12	216	3.481	0.45	0.099	0.32	3.939	0.55	0.287	0.45	1628	6	1614	6	–1
5.1	0.02	2706	411	0.16	675	3.445	0.41	0.101	0.19	4.027	0.45	0.290	0.41	1643	6	1635	3	0
13.1	0.00	1178	162	0.14	289	3.499	0.44	0.100	0.27	3.932	0.52	0.286	0.44	1621	6	1620	5	0
14.1	0.10	888	128	0.15	220	3.469	0.46	0.100	0.66	3.961	0.81	0.288	0.46	1633	7	1618	12	–1
16.1	–0.01	1038	200	0.20	255	3.490	0.46	0.100	0.38	3.945	0.60	0.287	0.46	1624	7	1621	7	0
18.1	0.00	1124	215	0.20	281	3.439	0.46	0.099	0.37	3.990	0.59	0.291	0.46	1646	7	1615	7	–2
20.1	0.02	1367	194	0.15	335	3.506	0.44	0.100	0.27	3.922	0.52	0.285	0.44	1617	6	1619	5	0
21.1	0.00	1443	221	0.16	363	3.419	0.42	0.101	0.27	4.054	0.50	0.293	0.42	1654	6	1633	5	–1
22.1	0.01	1920	213	0.11	481	3.432	0.42	0.099	0.22	3.996	0.47	0.291	0.42	1648	6	1614	4	–2
23.1	–0.01	1100	150	0.14	274	3.448	0.43	0.100	0.29	3.981	0.52	0.290	0.43	1642	6	1616	5	–2
25.1	0.00	2090	385	0.19	530	3.386	0.42	0.100	0.21	4.055	0.47	0.295	0.42	1668	6	1617	4	–3
26.1	0.01	1282	155	0.13	319	3.452	0.44	0.099	0.27	3.973	0.52	0.290	0.44	1640	6	1614	5	–2
27.1	0.00	1387	285	0.21	307	3.878	0.74	0.096	0.59	3.425	0.95	0.258	0.74	1479	10	1554	11	5
Inherited domain																		
10.1	0.01	2406	940	0.40	683	3.029	0.41	0.106	0.27	4.847	0.49	0.330	0.41	1839	7	1740	5	–5
12.1	0.00	2281	27	0.01	621	3.154	0.42	0.107	0.68	4.693	0.80	0.317	0.42	1775	7	1755	12	–1
28.1	0.00	1166	182	0.16	303	3.301	0.45	0.104	1.22	4.332	1.30	0.303	0.45	1706	7	1692	23	–1

Note: Errors (2σ) in the FC1 reference zircon calibration were 0.26% for mount 1 (samples EG-9d2 and EG-4a), 0.31% for mount 2 (samples EG-4g, EG-Kdp1), 0.40% for mount 3 (sample EG-SS11), and 0.18% for mount 4 (samples EG-San3A, EG-SM4, EG-An3, EG-Kdp4). Uncertainties quoted for individual spot analyses are at the 1σ level. Errors in the FC1 reference zircon calibration are not included in the above errors but are required when comparing data from different mounts. $^{206}Pb_c$% denotes the percentage of nonradiogenic ^{206}Pb that is common Pb. ^{206}Pb* denotes quantity of radiogenic Pb. Correction for common Pb for the U/Pb data has been made using the measured ^{204}Pb.

TABLE 3. ZIRCON SENSITIVE HIGH-RESOLUTION ION MICROPROBE ANALYSES AND APPARENT AGES FROM SAMPLES OF DOMAIN 2, EASTERN GHATS BELT

						Radiogenic ratios (^{204}Pb corrected)								Apparent ages (Ma)				
Spot	$^{206}Pb_c$	U (ppm)	Th (ppm)	Th/U	$^{206}Pb^*$ (ppm)	$^{238}U/^{206}Pb$	±%	$^{207}Pb/^{206}Pb$	±%	$^{207}Pb/^{235}U$	±%	$^{206}Pb/^{238}U$	±%	$^{206}Pb/^{238}U$	1σ error	$^{207}Pb/^{206}Pb$	1σ error	% Disc
Sample EG-9d2																		
Patchy domain																		
2.1	0.01	2497	242	0.10	347	6.177	0.99	0.077	1.30	1.717	1.60	0.162	0.99	967	9	1119	25	16
Oscillatory-zoned domain																		
2.2	0.08	468	315	0.70	129	3.118	2.20	0.110	2.80	4.880	3.60	0.321	2.20	1793	34	1806	51	1
3.1	–	420	301	0.74	113	3.201	2.20	0.103	2.50	4.440	3.30	0.312	2.20	1753	34	1680	46	–4
4.1	0.14	344	404	1.21	87	3.389	0.72	0.100	0.55	4.049	0.91	0.295	0.72	1667	11	1615	10	–3
4.2	0.11	194	157	0.84	51	3.283	2.80	0.107	6.60	4.480	7.20	0.305	2.80	1714	43	1745	122	2
7.1	–	254	239	0.97	64	3.411	1.20	0.104	1.60	4.195	2.00	0.293	1.20	1657	17	1693	30	2
8.1	0.03	365	171	0.48	94	3.326	0.82	0.100	0.71	4.155	1.10	0.301	0.82	1695	12	1628	13	–4
9.2	0.01	1689	1883	1.15	339	4.280	0.69	0.092	0.53	2.960	0.86	0.234	0.69	1354	8	1465	10	8
10.1	0.05	178	138	0.80	48	3.170	3.60	0.107	0.77	4.640	3.70	0.315	3.60	1765	56	1744	14	–1
10.2	0.00	923	138	0.15	252	3.147	0.88	0.110	2.70	4.800	2.90	0.318	0.88	1779	14	1791	49	1
11.3	–	184	128	0.72	43	3.690	1.20	0.100	1.10	3.731	1.60	0.271	1.20	1546	16	1621	20	5
14.1	–	102	46	0.47	26	3.313	2.70	0.108	3.90	4.510	4.80	0.302	2.70	1700	40	1771	72	4
14.2	–	962	105	0.11	224	3.682	1.20	0.098	3.20	3.660	3.40	0.272	1.20	1549	16	1581	59	2
15.1	0.01	1418	796	0.58	310	3.928	0.73	0.095	0.58	3.333	0.93	0.255	0.73	1462	10	1527	11	4
Inherited core																		
1.1	0.01	450	74	0.17	140	2.764	2.30	0.115	2.10	5.750	3.10	0.362	2.30	1991	39	1883	39	–5
Sample EG-SS11																		
Overgrowth domain																		
3.1	0.00	856	172	0.21	116	6.312	0.9	0.070	0.6	1.535	1.1	0.158	0.9	948	8	936	13	–1
9.1	0.00	300	119	0.41	39	6.632	0.9	0.069	2.0	1.433	2.2	0.151	0.9	905	7	897	41	–1
10.1	0.07	255	40	0.16	31	7.003	1.1	0.069	1.3	1.361	1.8	0.143	1.1	860	9	903	27	5
15.1	0.00	688	50	0.08	97	6.089	0.9	0.071	0.7	1.610	1.2	0.164	0.9	980	8	961	14	–2
21.1	0.06	710	32	0.05	99	6.135	1.0	0.070	0.7	1.571	1.2	0.163	1.0	973	9	925	15	–5
25.1	0.01	587	53	0.09	80	6.289	1.9	0.072	0.7	1.576	2.0	0.159	1.9	951	17	982	15	3
Oscillatory/planar-zoned domain																		
4.1	0.02	499	275	0.57	137	3.126	1.12	0.101	0.81	4.456	1.38	0.320	1.12	1789	18	1643	15	–8
7.1	0.03	627	221	0.36	136	3.949	3.27	0.099	3.69	3.463	4.93	0.253	3.27	1455	43	1609	69	11
8.1	0.02	646	192	0.31	175	3.165	1.12	0.103	0.92	4.494	1.45	0.316	1.12	1770	17	1682	17	–5
11.1	0.02	1395	359	0.27	310	3.868	2.62	0.098	2.04	3.486	3.32	0.259	2.62	1482	35	1583	38	7
14.1	0.00	1103	250	0.23	316	2.994	2.24	0.106	3.28	4.904	3.98	0.334	2.24	1858	36	1740	60	–6
17.1	0.01	522	220	0.44	128	3.509	5.53	0.101	2.72	3.974	6.16	0.285	5.53	1616	79	1645	50	2
19.1	0.00	347	212	0.63	95	3.153	1.10	0.105	0.57	4.581	1.24	0.317	1.10	1776	17	1710	10	–4
20.1	0.04	745	182	0.25	186	3.436	2.10	0.102	2.04	4.099	2.93	0.291	2.10	1647	31	1663	38	1
22.1	–0.01	453	176	0.40	90	4.305	1.58	0.096	4.74	3.061	4.99	0.232	1.58	1347	19	1539	89	14
24.1	0.06	417	271	0.67	76	4.727	3.45	0.094	3.02	2.732	4.58	0.212	3.45	1237	39	1501	57	21
29.1	0.00	400	145	0.37	100	3.454	1.35	0.099	0.58	3.953	1.47	0.290	1.35	1639	20	1606	11	–2
30.1	–0.02	208	181	0.90	50	3.551	1.50	0.104	2.34	4.028	2.79	0.282	1.50	1600	21	1692	43	6
30.2	0.00	802	351	0.45	223	3.086	1.39	0.105	1.69	4.678	2.19	0.324	1.39	1809	22	1709	31	–6
Sample EG-4a																		
Overgrowth and neoblastic grain domain																		
2.1	–0.01	726	60	0.09	99.3	6.281	0.4	0.071	0.6	1.556	0.7	0.159	0.4	952	4	954	11	0
3.1	0.00	412	94	0.23	56.5	6.268	0.5	0.070	0.5	1.529	0.7	0.160	0.5	954	4	914	10	–4
4.1	0.01	386	84	0.22	52.4	6.329	0.5	0.070	1.0	1.523	1.1	0.158	0.5	946	4	926	20	–2
5.1	–0.02	366	82	0.23	48.4	6.498	0.5	0.070	1.2	1.482	1.3	0.154	0.5	923	4	924	25	0
6.1	0.00	358	86	0.25	49.8	6.172	0.5	0.072	0.6	1.599	0.8	0.162	0.5	968	4	974	12	1
7.1	–0.02	760	64	0.09	104.6	6.246	0.4	0.070	0.4	1.556	0.6	0.160	0.4	957	4	942	8	–2
7.2	–0.01	786	66	0.09	101.5	6.656	0.4	0.071	0.4	1.462	0.6	0.150	0.4	902	4	945	9	5
8.2	–0.02	379	96	0.26	48.9	6.655	0.6	0.070	1.9	1.442	2.0	0.150	0.6	902	5	917	38	2
9.2	0.03	446	88	0.20	57.0	6.730	0.5	0.069	0.5	1.411	0.7	0.149	0.5	893	4	894	11	0

10.1	–0.01	401	94	0.24	58.0	5.947	0.5	0.073	0.5	1.694	0.7	0.168	0.5	1002	4	1016	11	1
10.2	0.07	442	102	0.24	59	6.434	0.8	0.069	0.9	1.478	1.2	0.155	0.8	931	7	898	19	–4
12.1	–0.04	196	86	0.45	25.3	6.640	0.8	0.069	0.8	1.443	1.1	0.151	0.8	904	7	913	16	1
12.2	–0.04	506	57	0.12	61.9	7.015	0.5	0.069	0.6	1.365	0.8	0.143	0.5	859	4	912	13	6
13.1	–0.02	369	86	0.24	51.1	6.202	0.7	0.071	4.5	1.579	4.5	0.161	0.7	964	6	959	92	–1
13.2	0.01	358	85	0.24	48	6.362	1.2	0.071	1.1	1.549	1.6	0.157	1.2	941	10	971	21	3
15.1	0.04	346	79	0.24	48.2	6.179	0.7	0.072	0.6	1.597	1.0	0.162	0.7	967	7	973	13	1
15.3	0.07	337	79	0.24	43.0	6.740	0.7	0.073	2.1	1.502	2.2	0.148	0.7	892	6	1025	42	15
16.1	0.03	546	76	0.14	70.4	6.659	0.4	0.069	0.5	1.431	0.7	0.150	0.4	902	4	902	10	0
17.1	–0.01	380	86	0.23	50.7	6.435	0.9	0.073	0.7	1.570	1.2	0.155	0.9	931	8	1021	15	10
18.1	–0.06	334	90	0.28	42.8	6.693	0.5	0.070	0.6	1.452	0.8	0.149	0.5	898	4	943	13	5
19.2	0.09	346	79	0.24	46	6.429	0.8	0.071	1.0	1.525	1.3	0.156	0.8	932	7	960	21	3
20.1	0.18	356	100	0.29	47	6.520	1.1	0.071	1.2	1.499	1.6	0.153	1.1	920	9	954	24	4
20.2	0.13	346	82	0.24	45	6.668	1.0	0.070	1.3	1.442	1.7	0.150	1.0	901	9	921	27	2
21.1	–	357	97	0.28	48	6.354	1.3	0.071	2.0	1.536	2.3	0.157	1.3	942	11	951	40	1
22.1	0.03	361	86	0.25	48	6.445	0.8	0.072	0.9	1.531	1.2	0.155	0.8	930	7	973	19	5
23.1	–	399	92	0.24	54	6.303	0.8	0.072	0.8	1.569	1.1	0.159	0.8	949	7	979	17	3
24.1	0.05	425	103	0.25	57	6.388	0.8	0.070	0.9	1.504	1.2	0.157	0.8	938	7	919	18	–2
27.1	0.04	408	89	0.23	56	6.321	0.8	0.070	1.0	1.534	1.3	0.158	0.8	947	7	938	21	–1
28.1	0.07	387	97	0.26	53	6.301	0.8	0.070	1.1	1.533	1.3	0.159	0.8	950	7	931	22	–2
30.1	0.02	400	80	0.21	58	5.902	1.4	0.073	1.3	1.694	1.9	0.169	1.4	1009	13	1001	26	–1
31.1	–	346	84	0.25	46	6.504	1.1	0.071	0.9	1.504	1.4	0.154	1.1	922	9	956	18	4
32.1	–	353	84	0.25	48	6.387	0.8	0.070	1.2	1.511	1.4	0.157	0.8	938	7	929	24	–1
33.1	–	372	89	0.25	52	6.199	0.8	0.070	0.9	1.568	1.2	0.161	0.8	964	7	943	18	–2
34.1	0.02	705	49	0.07	97	6.237	0.7	0.070	0.7	1.541	1.0	0.160	0.7	959	6	919	13	–4
35.1	0.06	377	88	0.24	53	6.091	0.9	0.071	0.9	1.599	1.3	0.164	0.9	980	8	947	19	–3
36.1	0.03	378	90	0.24	50	6.530	0.8	0.069	1.1	1.461	1.3	0.153	0.8	919	6	905	23	–1
37.1	–	395	96	0.25	55	6.225	1.4	0.072	1.1	1.588	1.7	0.161	1.4	960	12	978	23	2
40.1	0.27	385	92	0.25	53	6.292	0.8	0.070	1.2	1.530	1.4	0.159	0.8	951	7	923	25	–3
41.1	–	351	83	0.25	46	6.559	1.0	0.070	1.0	1.481	1.4	0.153	1.0	915	8	941	20	3
42.1	0.16	390	80	0.21	50	6.754	0.9	0.068	1.3	1.396	1.6	0.148	0.9	890	8	880	27	–1
43.1	0.09	306	73	0.25	41	6.440	1.6	0.071	1.2	1.517	2.0	0.155	1.6	931	14	953	25	2
44.2	0.05	527	62	0.12	71	6.413	0.7	0.071	0.8	1.525	1.1	0.156	0.7	934	6	955	16	2
Oscillatory–zoned domain																		
1.2	–0.01	1043	61	0.06	291	3.082	1.90	0.109	0.90	4.871	2.11	0.324	1.90	1812	30	1780	16	–2
8.1	0.22	315	62	0.20	49	5.573	2.05	0.087	2.17	2.155	2.98	0.179	2.05	1064	20	1362	42	28
11.1	0.11	155	39	0.26	36	3.676	5.32	0.104	9.57	3.903	10.95	0.272	5.32	1551	73	1697	176	9
15.2	0.05	685	81	0.12	145	4.048	0.91	0.100	1.20	3.403	1.51	0.247	0.91	1423	12	1622	22	14
16.2	–0.01	1144	129	0.12	296	3.320	1.22	0.108	1.33	4.487	1.80	0.301	1.22	1697	18	1766	24	4
17.2	0.00	1192	75	0.06	292	3.508	2.14	0.098	3.41	3.838	4.03	0.285	2.14	1617	31	1579	64	–2
18.2	0.02	2148	84	0.04	397	4.645	1.76	0.092	1.58	2.727	2.37	0.215	1.76	1257	20	1465	30	17
26.1	0.00	2110	233	0.11	566	3.204	0.68	0.110	0.41	4.748	0.79	0.312	0.68	1751	10	1805	7	3
44.1	0.01	992	99	0.10	209	4.084	1.70	0.106	2.10	3.574	2.70	0.245	1.70	1412	22	1729	39	22
45.1	0.00	2624	64	0.03	587	3.840	0.82	0.096	1.20	3.458	1.40	0.260	0.82	1492	11	1554	22	4
Inherited core																		
19.1	–0.01	785	108	0.14	233	2.890	0.43	0.120	0.71	5.725	0.83	0.346	0.43	1916	7	1956	13	2

Note: Errors (2σ) in the FC1 reference zircon calibration were 0.26% for mount 1 (samples EG-9d2 and EG-4a), 0.31% for mount 2 (samples EG-4g, EG-Kdp1), 0.40% for mount 3 (sample EG-SS11), and 0.18% for mount 4 (samples EG-San3A, EG-SM4, EG-An3, EG-Kdp4). Uncertainties quoted for individual spot analyses are at the 1σ level. Errors in the FC1 reference zircon calibration are not included in the above errors but are required when comparing data from different mounts. $^{206}Pb_c$% denotes the percentage of nonradiogenic ^{206}Pb that is common Pb. $^{206}Pb^*$ denotes quantity of radiogenic Pb. Correction for common Pb for the U/Pb data has been made using the measured ^{204}Pb.

TABLE 4. ZIRCON SENSITIVE HIGH-RESOLUTION ION MICROPROBE ANALYSES AND APPARENT AGES FROM SAMPLES OF DOMAIN 2, EASTERN GHATS BELT

						Radiogenic ratios (^{204}Pb corrected)								Apparent ages (Ma)				
Spot	$^{206}Pb_c$%	U (ppm)	Th (ppm)	Th/U	^{206}Pb* (ppm)	$^{238}U/^{206}Pb$	±%	$^{207}Pb/^{206}Pb$	±%	$^{207}Pb/^{235}U$	±%	$^{206}Pb/^{238}U$	±%	$^{206}Pb/^{238}U$	1σ error	$^{207}Pb/^{206}Pb$	1σ error	% Disc
Sample EG-San3A																		
Overgrowth domain																		
21.2	0.06	247	313	1.31	35.8	5.910	0.60	0.072	1.10	1.670	1.3	0.169	0.6	1007	6	980	23	–3
Bright-CL domain																		
10.1	–0.01	136	606	4.6	19.4	6.030	0.70	0.073	0.90	1.660	1.1	0.166	0.7	989	6	1005	19	2
27.1	0.09	110	319	3	15.2	6.220	0.80	0.071	2.40	1.570	2.6	0.161	0.8	961	7	952	50	–1
34.1	0.21	145	490	3.49	22.3	5.600	0.70	0.073	1.50	1.810	1.6	0.179	0.7	1059	7	1025	30	–3
Oscillatory-zoned domain																		
8.1	0.2	208	169	0.84	32.2	5.570	0.60	0.080	2.70	1.980	2.8	0.180	0.60	1065	6	1193	53	12
12.1	–0.06	176	151	0.89	34.2	4.420	2.30	0.088	2.40	2.760	3.3	0.226	2.30	1314	28	1392	45	6
13.1	0.11	449	193	0.44	102.1	3.780	1.20	0.098	4.90	3.580	5.1	0.264	1.20	1512	16	1589	92	5
15.1	0	1255	1391	1.15	229	4.710	0.50	0.089	0.50	2.590	0.7	0.212	0.50	1241	6	1392	9	12
16.1	0.05	263	171	0.67	38.8	5.830	0.80	0.080	1.70	1.880	1.9	0.172	0.80	1021	8	1184	34	16
17.1	0.02	329	279	0.88	67.5	4.190	1.30	0.093	1.80	3.070	2.2	0.239	1.30	1379	16	1497	35	9
18.1	–0.01	364	207	0.59	93.6	3.340	4.60	0.103	2.20	4.260	5.1	0.299	4.60	1688	68	1682	42	0
19.1	0.01	358	199	0.58	63.8	4.820	3.60	0.088	5.20	2.500	6.4	0.207	3.60	1215	40	1372	101	13
20.1	–0.05	330	263	0.82	68.4	4.140	2.00	0.104	2.00	3.470	2.8	0.242	2.00	1395	25	1702	36	22
21.1	–0.01	659	227	0.36	137.8	4.110	3.20	0.093	4.20	3.120	5.2	0.243	3.20	1404	40	1485	79	6
22.1	0.02	1125	1681	1.54	207.2	4.660	0.40	0.088	0.40	2.600	0.6	0.215	0.40	1253	5	1382	7	10
23.1	0.06	314	284	0.94	52	5.190	3.00	0.079	2.60	2.090	4	0.193	3.00	1135	32	1164	52	2
25.1	0	439	292	0.69	95.8	3.940	1.50	0.094	2.80	3.280	3.2	0.254	1.50	1458	20	1500	53	3
26.1	0.02	337	329	1.01	84.8	3.420	2.90	0.098	2.60	3.940	3.9	0.293	2.90	1655	42	1579	48	–5
28.1	0.14	217	154	0.73	31.9	5.840	0.60	0.077	1.80	1.810	1.9	0.171	0.60	1018	6	1114	36	9
29.1	0.01	469	212	0.47	72.1	5.590	1.20	0.088	3.10	2.170	3.3	0.179	1.20	1061	11	1386	59	31
30.1	–0.03	149	196	1.36	30.9	4.130	3.70	0.095	3.60	3.170	5.1	0.242	3.70	1397	46	1527	68	9
32.1	0.02	798	332	0.43	140.4	4.880	1.30	0.084	4.30	2.370	4.5	0.205	1.30	1201	15	1293	83	8
37.1	0.04	1002	517	0.53	212.2	4.060	0.90	0.092	0.70	3.130	1.1	0.246	0.90	1420	11	1472	12	4
38.1	0	368	161	0.45	84.5	3.750	2.60	0.103	2.00	3.770	3.3	0.267	2.60	1525	35	1671	38	10
39.1	0	1004	1324	1.36	218	3.960	0.40	0.095	0.40	3.300	0.6	0.253	0.40	1453	6	1520	7	5
40.1	0.01	424	199	0.48	103.1	3.530	1.60	0.104	1.50	4.070	2.2	0.283	1.60	1606	23	1705	28	6
Sample EG-SM4																		
Overgrowth domain																		
9.2	0.05	1308	69	0.05	189.0	5.95	0.6	0.073	0.5	1.69	0.7	0.1681	0.6	1002	5	1010	9	1
17.1	0.00	1619	382	0.24	213.7	6.51	0.4	0.070	0.4	1.48	0.6	0.1536	0.4	921	4	920	8	0
21.1	0.00	2224	421	0.20	320.3	5.97	0.4	0.071	0.3	1.65	0.5	0.1676	0.4	999	4	967	7	–3
Oscillatory-zoned/disturbed oscillatory-zoned domain																		
1.1	0.04	724	130	0.19	117.8	5.28	1.1	0.080	1.6	2.08	1.9	0.1892	1.1	1117	11	1189	31	6
2.1	0.00	2563	167	0.07	518.4	4.25	0.8	0.093	0.4	3.03	0.9	0.2355	0.8	1363	10	1495	8	10
3.1	0.56	931	183	0.20	170.6	4.72	2.5	0.085	1.5	2.50	2.9	0.2120	2.5	1240	28	1327	30	7
4.1	0.01	2267	212	0.10	375.7	5.18	1.1	0.080	1.7	2.14	2.0	0.1929	1.1	1137	12	1205	34	6
5.1	0.05	672	79	0.12	134.0	4.31	1.7	0.092	0.5	2.94	1.8	0.2320	1.7	1345	21	1463	10	9
6.1	0.03	661	75	0.12	119.2	4.76	2.1	0.091	2.5	2.63	3.3	0.2099	2.1	1229	23	1446	48	18
7.1	–0.01	661	40	0.06	125.4	4.53	1.9	0.088	1.6	2.69	2.5	0.2209	1.9	1287	22	1389	30	8
8.1	0.01	1127	143	0.13	220.3	4.39	0.8	0.089	2.1	2.79	2.3	0.2276	0.8	1322	10	1403	40	6
9.1	0.17	809	86	0.11	165.5	4.21	0.6	0.094	0.7	3.08	1.0	0.2377	0.6	1375	8	1510	14	10
12.1	0.03	1009	69	0.07	179.0	4.85	1.3	0.077	0.8	2.19	1.6	0.2063	1.3	1209	15	1116	16	–8
13.1	0.01	988	151	0.16	224.2	3.79	2.9	0.090	1.8	3.27	3.4	0.2641	2.9	1511	39	1423	35	–6
14.1	0.00	858	78	0.09	165.6	4.45	1.6	0.090	2.0	2.80	2.5	0.2247	1.6	1306	19	1432	38	10
15.1	0.06	3037	140	0.05	652.8	4.00	1.8	0.095	0.3	3.29	1.8	0.2500	1.8	1439	23	1536	5	7
18.1	0.00	3123	158	0.05	660.6	4.06	1.3	0.092	0.5	3.12	1.4	0.2462	1.3	1419	16	1463	10	3
20.1	0.05	924	46	0.05	202.2	3.93	0.5	0.099	2.2	3.49	2.2	0.2545	0.5	1462	6	1613	41	10

Note: Errors (2σ) in the FC1 reference zircon calibration were 0.26% for mount 1 (samples EG-9d2 and EG-4a), 0.31% for mount 2 (samples EG-4g, EG-Kdp1), 0.40% for mount 3 (sample EG-SS11), and 0.18% for mount 4 (samples EG-San3A, EG-SM4, EG-An3, EG-Kdp4). Uncertainties quoted for individual spot analyses are at the 1σ level. Errors in the FC1 reference zircon calibration are not included in the above errors but are required when comparing data from different mounts. $^{206}Pb_c$% denotes the percentage of nonradiogenic ^{206}Pb that is common Pb. ^{206}Pb* denotes quantity of radiogenic Pb. Correction for common Pb for the U/Pb data has been made using the measured ^{204}Pb.

TABLE 5. ZIRCON SENSITIVE HIGH-RESOLUTION ION MICROPROBE ANALYSES AND APPARENT AGES FROM SAMPLES OF DOMAIN 2, EASTERN GHATS BELT

						Radiogenic ratios (^{204}Pb corrected)								Apparent ages (Ma)				
Spot	$^{206}Pb_c$%	U (ppm)	Th (ppm)	Th/U	^{206}Pb* (ppm)	$^{238}U/^{206}Pb$	±%	$^{207}Pb/^{206}Pb$	±%	$^{207}Pb/^{235}U$	±%	$^{206}Pb/^{238}U$	±%	$^{206}Pb/^{238}U$	1σ error	$^{207}Pb/^{206}Pb$	1σ error	% Disc
Sample EG-4g																		
Overgrowth domain																		
11.1	0.07	455	133	0.30	63	6.209	1.27	0.073	0.84	1.617	1.52	0.161	1.27	963	11	1009	17	5
15.1	0.13	337	126	0.39	43	6.808	1.03	0.069	1.27	1.395	1.64	0.147	1.03	883	8	895	26	1
26.1	0.80	281	107	0.39	39	6.241	1.04	0.072	2.07	1.593	2.31	0.160	1.04	958	9	989	42	3
40.1	0.15	427	124	0.30	56	6.534	0.98	0.070	0.99	1.474	1.39	0.153	0.98	918	8	924	20	1
Oscillatory-zoned/disturbed oscillatory-zoned domain																		
1.1	0.25	1614	128	0.08	313	4.437	1.16	0.093	2.40	2.897	2.66	0.225	1.16	1310	14	1493	45	14
2.1	0.64	1045	145	0.14	180	5.025	0.95	0.091	2.58	2.510	2.75	0.199	0.95	1170	10	1456	49	24
3.1	0.02	689	98	0.15	142	4.165	2.37	0.096	3.02	3.171	3.84	0.240	2.37	1387	30	1543	57	11
4.1	0.07	598	72	0.12	131	3.927	2.01	0.095	2.79	3.341	3.43	0.255	2.01	1462	26	1531	52	5
8.1	0.18	1093	122	0.12	198	4.750	1.08	0.092	0.49	2.665	1.19	0.211	1.08	1232	12	1464	9	19
13.1	0.00	1021	129	0.13	230	3.820	1.34	0.104	1.44	3.753	1.97	0.262	1.34	1499	18	1696	27	13
16.1	0.06	1051	127	0.13	230	3.933	2.13	0.107	2.42	3.743	3.23	0.254	2.13	1460	28	1745	44	19
17.1	0.18	179	52	0.30	31	4.930	1.10	0.092	1.05	2.572	1.52	0.203	1.10	1191	12	1467	20	23
18.1	0.01	1366	125	0.09	281	4.170	1.44	0.099	1.19	3.260	1.87	0.240	1.44	1386	18	1598	22	15
19.1	0.09	1448	64	0.05	294	4.229	1.80	0.093	3.20	3.018	3.67	0.236	1.80	1368	22	1479	61	8
20.1	0.10	869	150	0.18	206	3.631	1.02	0.102	0.73	3.877	1.25	0.275	1.02	1568	14	1663	14	6
21.1	0.02	783	130	0.17	204	3.292	1.36	0.111	1.02	4.636	1.70	0.304	1.36	1710	20	1811	18	6
22.1	0.24	2072	125	0.06	394	4.525	0.97	0.095	1.88	2.899	2.11	0.221	0.97	1287	11	1531	35	19
25.1	0.38	821	228	0.29	150	4.722	1.56	0.093	1.99	2.715	2.53	0.212	1.56	1238	18	1488	38	20
28.1	0.44	345	269	0.80	95	3.128	3.03	0.109	1.15	4.798	3.24	0.320	3.03	1788	47	1780	21	0
29.1	0.02	1814	156	0.09	387	4.030	2.31	0.100	1.31	3.435	2.66	0.248	2.31	1429	30	1631	24	14
30.1	0.01	946	90	0.10	181	4.493	2.42	0.093	0.75	2.860	2.54	0.223	2.42	1295	28	1492	14	15
32.1	0.25	117	50	0.44	22	4.534	1.18	0.093	3.00	2.838	3.23	0.221	1.18	1285	14	1495	57	16
33.1	0.06	812	91	0.12	183	3.821	1.17	0.103	2.69	3.729	2.94	0.262	1.17	1498	16	1685	50	12
34.1	0.20	148	59	0.41	27	4.655	1.09	0.096	2.79	2.831	3.00	0.215	1.09	1254	12	1540	52	23
35.1	0.03	986	104	0.11	184	4.612	1.40	0.092	1.42	2.741	2.00	0.217	1.40	1265	16	1461	27	16
Sample EG-An3																		
Overgrowth domain																		
16.1	–0.02	366	12	0.03	46	6.757	0.56	0.070	0.83	1.421	1.00	0.148	0.56	890	5	918	17	3
25.1	0.02	764	73	0.10	109	6.052	1.04	0.070	0.60	1.600	1.20	0.165	1.04	986	9	935	12	–5
Oscillatory-zoned domain																		
2.1	–0.02	910	92	0.10	122	6.383	0.48	0.071	0.49	1.540	0.69	0.157	0.48	938	4	966	10	3
4.1	0.28	181	228	1.30	25	6.260	0.73	0.071	1.54	1.557	1.70	0.160	0.73	955	7	948	31	–1
6.1	–0.03	761	108	0.15	106	6.180	0.47	0.072	0.59	1.605	0.75	0.162	0.47	967	4	984	12	2
7.1	0.00	1166	174	0.15	159	6.309	0.78	0.071	0.53	1.558	0.94	0.159	0.78	948	7	966	11	2
8.1	0.03	810	168	0.21	116	5.982	0.47	0.072	0.56	1.660	0.73	0.167	0.47	997	4	987	11	–1
9.1	0.06	587	447	0.79	81	6.211	0.50	0.073	1.09	1.618	1.19	0.161	0.50	962	4	1011	22	5
11.1	0.04	457	447	1.01	65	6.046	0.56	0.072	0.76	1.637	0.94	0.165	0.56	987	5	980	15	–1
12.1	0.04	1114	140	0.13	155	6.175	0.47	0.071	0.51	1.589	0.70	0.162	0.47	968	4	962	10	–1
14.1	0.04	775	238	0.32	110	6.061	0.48	0.072	0.57	1.638	0.74	0.165	0.48	984	4	986	12	0
18.1	0.07	1292	216	0.17	177	6.285	0.61	0.071	0.49	1.558	0.78	0.159	0.61	952	5	958	10	1
19.1	0.02	821	140	0.18	111	6.380	0.50	0.070	0.59	1.512	0.77	0.157	0.50	939	4	927	12	–1
20.1	–0.01	232	299	1.33	38	5.235	1.16	0.073	0.90	1.922	1.47	0.191	1.16	1127	12	1013	18	–10
21.1	0.05	812	90	0.11	115	6.062	0.47	0.071	0.62	1.617	0.78	0.165	0.47	984	4	960	13	–2
26.1	–0.02	491	104	0.22	68	6.238	0.76	0.072	0.69	1.584	1.03	0.160	0.76	958	7	977	14	2
29.1	0.05	610	92	0.16	85	6.182	0.53	0.072	0.74	1.599	0.91	0.162	0.53	967	5	977	15	1
30.1	–0.06	348	226	0.67	47	6.422	0.76	0.072	1.02	1.546	1.27	0.156	0.76	933	7	986	21	6
Inherited core																		
16.2	0.11	144	103	0.74	37	3.333	1.54	0.097	1.39	3.993	2.08	0.300	1.54	1692	23	1558	26	–8
24.1	–0.07	223	100	0.46	47	4.084	0.62	0.092	1.11	3.100	1.27	0.245	0.62	1412	8	1463	21	4
27.1	–0.01	171	101	0.61	49	3.028	1.03	0.107	3.82	4.893	3.95	0.330	1.03	1840	16	1757	70	–5

Notes: Errors (2σ) in the FC1 reference zircon calibration were 0.26% for mount 1 (samples EG-9d2 and EG-4a), 0.31% for mount 2 (samples EG-4g, EG-Kdp1), 0.40% for mount 3 (sample EG-SS11), and 0.18% for mount 4 (samples EG-San3A, EG-SM4, EG-An3, EG-Kdp4). Uncertainties quoted for individual spot analyses are at the 1σ level. Errors in the FC1 reference zircon calibration are not included in the above errors but are required when comparing data from different mounts. $^{206}Pb_c$% denotes the percentage of nonradiogenic ^{206}Pb that is common Pb. ^{206}Pb* denotes quantity of radiogenic Pb. Correction for common Pb for the U/Pb data has been made using the measured ^{204}Pb.

TABLE 6. ELECTRON MICROPROBE DATA OF MONAZITE FROM SAMPLES OF DOMAIN 2, EASTERN GHATS BELT

Analysis pt.	SiO_2	P_2O_5	CaO	Y_2O_3	La_2O_3	Ce_2O_3	Pr_2O_3	Nd_2O_3	SmO	Gd_2O_3	Dy_2O_3	Ho_2O_3	PbO	ThO_2	UO_2	Total	Spot age (Ma)	1σ error
Sample EG-SS11																		
Grain 1																		
11	0.27	30.50	0.91	2.06	13.82	28.22	3.13	11.34	1.59	1.08	0.51	0.00	0.23	4.08	0.32	98.05	1024	64
12	0.24	30.43	0.72	2.26	14.20	28.70	3.19	11.42	1.55	1.07	0.48	0.03	0.21	3.00	0.50	97.99	1032	67
13	0.26	30.53	0.85	2.20	13.96	28.36	3.12	11.42	1.59	1.17	0.50	0.02	0.22	3.70	0.33	98.23	1053	67
14	0.28	29.99	0.88	2.13	13.80	28.22	3.08	11.43	1.58	1.20	0.49	0.04	0.22	3.90	0.31	97.54	1044	65
Grain 2																		
15	0.19	30.66	0.55	2.09	14.68	29.57	3.18	11.61	1.54	1.00	0.42	0.04	0.16	1.71	0.47	97.88	1115	90
16	0.32	30.27	1.21	1.93	13.30	27.48	3.09	11.41	1.66	1.17	0.46	0.04	0.27	5.32	0.27	98.19	990	55
17	0.18	30.56	0.58	2.16	14.73	29.73	3.23	11.62	1.47	0.90	0.41	0.00	0.16	1.68	0.40	97.81	1173	98
18	0.29	30.49	1.14	2.26	13.36	27.34	3.06	11.21	1.63	1.27	0.52	0.10	0.26	4.92	0.32	98.17	997	56
Grain 3																		
3	0.25	30.22	0.84	2.24	13.77	28.02	3.12	11.39	1.55	1.15	0.49	0.05	0.22	3.63	0.35	97.27	1035	67
19	0.26	30.41	0.82	2.18	13.96	28.42	3.07	11.35	1.60	1.13	0.51	0.04	0.21	3.56	0.34	97.85	1042	68
20	0.27	30.10	0.85	2.19	13.88	28.36	3.13	11.63	1.60	1.13	0.53	0.06	0.21	3.68	0.34	97.97	1006	66
Grain 4																		
11	0.46	28.20	1.54	2.24	12.29	28.59	2.59	11.43	1.31	0.83	0.37	0.06	0.36	0.31	8.21	98.79	899	34
12	0.45	27.87	1.58	2.23	12.15	28.56	2.39	11.07	1.22	0.83	0.40	0.10	0.37	0.33	8.26	97.79	933	34
13	0.45	27.74	1.53	2.18	12.50	28.27	2.57	11.35	1.21	0.88	0.37	0.03	0.37	0.23	8.24	97.92	955	35
14	0.47	28.05	1.56	2.24	12.93	28.65	2.65	11.35	1.22	1.11	0.32	0.00	0.38	0.33	8.21	99.48	939	34
15	0.39	28.16	1.55	2.17	12.87	28.82	2.81	11.50	1.29	1.09	0.48	0.12	0.32	0.20	7.51	99.27	901	39
16	0.39	28.13	1.54	2.17	12.76	28.84	2.68	11.89	1.06	1.04	0.48	0.09	0.33	0.19	7.58	99.16	947	39
17	0.44	28.05	1.52	2.10	12.49	28.84	2.67	11.45	1.02	0.86	0.40	0.07	0.35	0.17	8.03	98.43	941	37
18	0.44	27.76	1.49	2.08	12.20	28.75	2.67	11.27	1.17	1.00	0.39	0.06	0.32	0.16	8.04	97.79	884	37
19	0.47	27.67	1.62	2.22	12.37	28.53	2.40	11.07	1.30	0.78	0.43	0.07	0.37	0.32	8.41	98.02	915	34
20	0.45	27.64	1.57	2.17	12.50	29.02	2.50	11.45	1.33	0.87	0.39	0.05	0.35	0.18	8.26	98.71	914	36
Grain 5																		
21	0.50	28.31	1.55	2.36	12.75	28.18	2.64	11.33	1.27	0.99	0.47	0.13	0.39	0.36	8.56	99.79	929	33
22	0.57	27.59	1.58	2.42	12.96	27.57	2.79	11.02	1.24	1.24	0.45	0.04	0.39	0.37	8.61	98.82	925	32
23	0.47	27.69	1.56	2.49	12.81	27.95	3.03	11.28	1.30	1.02	0.52	0.10	0.38	0.31	8.46	99.37	936	34
24	0.52	28.52	1.56	2.48	12.77	27.96	2.82	10.98	1.32	1.07	0.40	0.09	0.40	0.41	8.42	99.72	949	33
25	0.45	28.16	1.63	2.64	12.65	28.13	2.72	11.21	1.23	0.92	0.50	0.14	0.39	0.43	8.46	99.65	914	32
26	0.57	28.03	1.56	2.21	12.90	28.09	2.79	11.39	1.20	0.89	0.43	0.10	0.37	0.22	8.76	99.50	910	33
27	0.53	28.27	1.57	2.34	12.80	28.34	2.71	11.44	1.15	0.87	0.38	0.11	0.36	0.25	8.54	99.67	900	34
28	0.56	28.14	1.58	2.35	12.99	27.60	2.60	11.08	1.27	1.21	0.45	0.08	0.38	0.36	8.57	99.20	917	33
Grain 6																		
29	0.29	28.24	1.43	2.37	13.23	28.81	2.89	11.74	1.42	1.08	0.48	0.10	0.29	0.29	6.70	99.36	882	42
30	0.29	27.68	1.44	2.46	13.29	29.03	3.02	11.77	1.26	0.99	0.46	0.08	0.30	0.31	6.53	98.91	909	42
31	0.25	28.94	1.46	2.68	13.06	28.87	2.80	11.47	1.35	1.05	0.45	0.11	0.29	0.35	6.17	99.30	918	44
32	0.28	28.10	1.42	2.44	12.68	29.09	2.95	11.83	1.34	1.04	0.50	0.10	0.31	0.30	6.55	98.91	946	42
33	0.41	27.55	1.47	2.31	12.99	28.22	2.51	11.40	1.19	0.85	0.43	0.09	0.34	0.22	7.79	97.77	931	37
34	0.40	27.73	1.49	2.51	12.88	27.75	2.65	11.26	1.30	1.01	0.41	0.02	0.32	0.23	7.72	97.67	888	37
35	0.31	27.65	1.50	2.81	12.69	28.34	2.66	10.86	1.31	1.07	0.46	0.13	0.33	0.34	7.33	97.77	896	38
36	0.40	27.85	1.48	2.81	13.16	27.99	2.54	11.05	1.27	1.15	0.39	0.07	0.33	0.31	7.63	98.43	895	37
37	0.34	27.63	1.38	2.38	13.36	28.94	2.83	11.41	1.21	0.88	0.47	0.00	0.30	0.28	6.75	98.16	908	41
38	0.34	26.76	1.39	2.42	13.13	28.87	3.04	11.42	1.20	1.05	0.39	0.08	0.32	0.29	6.96	97.66	938	40
39	0.32	27.93	1.39	2.31	13.19	29.43	2.54	11.47	1.13	0.93	0.40	0.05	0.30	0.29	6.76	98.44	909	41
40	0.30	28.30	1.39	2.33	12.97	28.93	2.62	11.66	1.17	1.15	0.45	0.08	0.30	0.27	6.63	98.57	912	42
Grain 7																		
41	0.64	27.81	1.40	2.28	13.04	28.33	2.99	11.57	1.34	0.98	0.42	0.00	0.34	0.23	8.25	99.62	878	35
42	0.71	27.85	1.35	1.97	13.29	29.02	2.79	11.71	1.31	0.92	0.35	0.10	0.36	0.22	8.42	100.36	909	35
43	0.89	27.57	1.36	1.71	12.95	28.55	2.76	11.64	1.28	1.01	0.22	0.03	0.38	0.16	9.21	99.74	904	32
44	1.18	26.40	1.41	1.35	12.94	28.58	2.81	11.58	1.06	0.95	0.30	0.07	0.41	0.15	10.77	99.95	843	28
45	1.32	26.09	1.48	1.26	12.99	27.99	2.70	11.32	0.90	0.84	0.27	0.00	0.46	0.23	11.29	99.12	885	26
46	1.15	26.64	1.59	1.44	12.66	27.77	2.75	11.22	1.03	0.85	0.30	0.02	0.45	0.14	11.45	99.47	890	26
47	0.47	27.40	1.98	3.77	11.70	25.71	2.30	10.35	0.96	0.99	0.73	0.09	0.43	0.31	10.17	97.34	899	28
48	0.52	27.93	2.26	4.21	11.26	25.67	2.45	10.14	1.16	0.92	0.59	0.20	0.45	0.50	10.82	99.07	843	26
Sample EG-9d2																		
Grain 1																		
44	0.27	30.70	1.06	4.44	11.82	25.39	2.96	11.21	1.89	1.77	1.05	0.11	0.26	5.09	0.23	98.26	1033	57
45	0.30	30.76	1.07	4.26	12.02	25.76	2.95	11.33	1.85	1.82	1.01	0.16	0.27	5.03	0.29	98.87	1027	56
46	0.26	30.77	1.11	4.23	11.99	25.65	3.00	11.26	1.85	1.82	1.02	0.05	0.27	5.12	0.29	98.68	1017	55
47	0.28	30.74	1.05	3.27	12.48	26.55	3.03	11.39	1.90	1.60	0.87	0.11	0.27	4.94	0.35	98.84	1017	55
48	0.31	30.64	1.00	2.93	12.53	26.73	3.10	11.44	1.89	1.60	0.86	0.04	0.28	4.72	0.47	98.53	1031	54
49	0.28	30.70	1.09	3.70	12.29	26.06	3.01	11.21	1.85	1.66	0.93	0.12	0.28	5.26	0.25	98.69	1048	56
50	0.28	30.81	1.11	4.18	12.09	25.81	2.88	11.26	1.87	1.83	1.01	0.04	0.28	5.22	0.25	98.91	1046	56
51	0.27	30.75	1.08	4.16	12.06	25.63	2.97	11.21	1.83	1.81	0.98	0.10	0.26	4.99	0.26	98.36	1018	56
52	0.28	30.81	1.07	3.81	12.30	26.12	3.02	11.28	1.85	1.74	0.90	0.09	0.27	5.11	0.26	98.88	1051	57
53	0.29	30.68	1.08	3.72	12.30	26.01	2.93	11.11	1.81	1.62	0.91	0.05	0.27	5.15	0.24	98.16	1031	56
54	0.25	30.65	1.06	3.94	12.27	25.95	2.94	11.24	1.86	1.72	0.94	0.02	0.25	4.93	0.27	98.27	998	56
55	0.29	30.65	1.18	3.90	12.11	25.83	2.96	11.13	1.73	1.67	0.91	0.02	0.29	5.73	0.30	98.71	1005	51
Grain 2																		
57	0.17	29.34	1.19	4.48	12.23	28.64	2.65	12.16	1.54	1.43	0.82	0.10	0.30	5.25	0.24	100.55	889	51
58	0.16	29.46	1.17	4.42	12.41	28.08	2.86	11.98	1.62	1.64	0.79	0.13	0.27	5.13	0.23	100.37	891	53
59	0.16	29.21	1.14	4.42	12.57	28.38	2.76	12.06	1.45	1.37	0.96	0.19	0.28	5.13	0.24	100.32	922	53
60	0.15	29.39	1.05	4.45	12.24	28.13	2.97	12.48	1.48	1.62	0.84	0.15	0.27	4.73	0.22	100.17	927	57
61	0.15	29.21	1.05	4.43	12.27	28.50	2.84	12.41	1.43	1.42	0.86	0.18	0.27	4.80	0.23	100.05	942	56
62	0.16	29.33	1.05	4.41	12.50	28.69	2.70	12.41	1.51	1.54	0.86	0.13	0.27	4.84	0.23	100.63	949	56
63	0.16	29.20	1.13	4.41	12.34	28.08	2.62	11.96	1.73	1.43	0.79	0.19	0.28	5.08	0.24	99.62	916	53
64	0.16	28.99	1.19	4.49	12.04	27.86	2.44	12.09	1.40	1.39	0.79	0.14	0.29	5.36	0.25	98.86	918	51
65	0.17	29.33	1.17	4.47	12.28	28.40	2.73	12.25	1.62	1.44	0.78	0.16	0.27	5.25	0.24	100.56	895	52
66	0.14	29.11	1.05	4.46	12.38	28.81	2.84	12.28	1.38	1.49	0.80	0.14	0.27	4.73	0.23	100.10	950	57
Grain 3																		
67	0.20	29.44	1.17	4.58	12.49	28.04	2.82	12.04	1.27	1.58	0.67	0.08	0.23	5.59	0.25	100.43	911	50
68	0.18	29.20	1.22	4.61	12.45	28.23	2.51	11.81	1.13	1.44	0.71	0.10	0.29	5.58	0.25	99.71	906	49
69	0.19	29.38	1.17	4.64	12.09	28.58	2.44	12.00	1.33	1.43	0.79	0.05	0.26	5.51	0.24	100.09	883	50
70	0.19	29.20	1.17	4.68	12.12	28.11	2.48	11.99	1.23	1.41	0.70	0.13	0.26	5.55	0.26	99.46	956	50
71	0.19	29.31	1.19	4.71	12.25	28.18	2.58	11.87	1.18	1.55	0.71	0.14	0.27	5.55	0.26	99.94	938	50

72	0.20	28.96	1.18	4.71	12.09	28.22	2.60	11.93	1.30	1.56	0.86	0.15	0.26	5.63	0.26	99.90	942	49
73	0.19	29.22	1.19	5.33	11.78	27.08	2.52	11.89	1.38	1.52	0.73	0.18	0.28	5.57	0.25	99.11	891	49
74	0.18	29.19	1.17	4.63	11.94	27.72	2.58	11.90	1.36	1.54	0.78	0.18	0.30	5.62	0.25	99.32	891	48
75	0.17	29.31	1.20	4.66	12.38	28.11	2.61	11.67	1.26	1.53	0.78	0.07	0.28	5.56	0.27	99.87	971	49
76	0.17	29.48	1.07	3.57	13.01	29.50	2.74	12.24	1.34	1.16	0.69	0.04	0.76	4.82	0.29	100.85	916	45
Grain 4																		
77	0.41	28.04	1.58	4.55	11.44	26.29	2.47	10.12	1.25	1.34	0.68	0.22	0.20	8.57	0.35	97.50	885	34
78	0.43	28.15	1.60	4.54	11.07	25.77	2.32	11.17	1.31	1.36	0.75	0.21	0.20	9.00	0.38	98.24	920	33
79	0.48	27.98	1.57	4.43	11.33	26.14	2.21	11.02	1.27	1.42	0.64	0.14	0.19	8.96	0.37	98.14	894	33
80	0.37	28.31	1.56	4.89	11.55	26.13	2.45	10.88	1.43	1.37	0.70	0.10	0.22	8.40	0.38	98.73	980	35
81	0.42	28.10	1.54	4.41	11.59	26.84	2.40	11.08	1.26	1.37	0.73	0.16	0.19	8.53	0.36	98.96	913	35
82	0.41	28.30	1.57	4.27	11.79	26.50	2.75	11.27	1.33	1.26	0.60	0.20	0.19	8.65	0.36	99.45	903	34
83	0.21	28.50	1.32	4.73	11.93	27.16	2.56	11.41	1.37	1.24	0.69	0.08	0.26	6.34	0.27	98.06	878	44
84	0.22	28.75	1.31	4.71	12.12	27.48	2.71	11.44	1.23	1.49	0.69	0.25	0.27	6.39	0.29	99.34	911	44
85	0.22	28.55	1.30	4.71	12.04	27.52	2.25	11.04	1.17	1.36	0.76	0.06	0.26	6.38	0.27	97.89	868	44
86	0.21	28.75	1.35	4.70	11.83	27.49	2.44	11.32	1.33	1.32	0.69	0.19	0.28	6.47	0.28	98.64	870	43
87	0.22	28.27	1.29	4.98	12.08	27.38	2.38	11.07	1.22	1.36	0.73	0.13	0.25	6.31	0.22	97.89	713	44
88	0.20	18.90	0.85	4.66	11.19	25.13	2.41	9.90	1.11	0.52	0.32	0.04	0.29	6.07	0.29	81.90	970	45
89	0.34	28.49	1.33	4.42	11.83	27.15	2.69	11.37	1.22	1.32	0.60	0.14	0.20	7.54	0.32	98.95	921	39
90	0.38	28.42	1.48	4.23	11.90	26.92	2.37	11.36	1.26	1.07	0.70	0.11	0.19	8.24	0.35	98.99	930	36
91	0.37	28.77	1.55	4.34	11.68	26.52	2.61	11.64	1.28	1.35	0.70	0.10	0.20	8.27	0.35	99.74	908	35
92	0.39	28.35	1.55	4.27	11.65	26.71	2.65	11.49	1.15	1.32	0.69	0.13	0.19	8.52	0.36	99.42	927	35
93	0.32	28.42	1.49	4.44	11.62	26.93	2.48	11.44	1.41	1.26	0.74	0.07	0.19	7.87	0.33	99.01	904	37
94	0.30	27.83	1.49	4.41	11.52	26.46	2.59	11.39	1.29	1.21	0.76	0.20	0.20	7.81	0.33	97.77	907	37
95	0.30	28.34	1.47	4.45	11.65	26.39	2.53	11.00	1.26	1.38	0.74	0.20	0.21	7.64	0.34	97.90	938	38
96	0.29	28.55	1.44	4.46	11.90	26.81	2.36	10.89	1.31	1.38	0.66	0.19	0.23	7.46	0.32	98.25	915	39
97	0.21	28.85	1.31	4.71	11.94	27.46	2.74	11.60	1.33	1.47	0.72	0.12	0.27	6.43	0.27	99.43	877	44
98	0.22	28.17	1.34	4.69	11.85	27.38	2.31	11.70	1.21	1.48	0.72	0.14	0.28	6.45	0.29	98.23	919	43
99	0.20	29.00	1.27	5.05	12.04	27.23	2.48	11.45	1.24	1.65	0.83	0.18	0.28	6.32	0.27	99.49	879	44
100	0.19	28.92	1.30	5.07	11.94	27.19	2.39	11.41	1.09	1.46	0.87	0.14	0.27	6.29	0.28	98.82	897	44

Note: Monazite analysis at the Indian Institute of Technology, Kharagpur, was carried out using a CAMECA SX-100 microprobe. Calibrations used were 20 kV and 20 nA, while analyses were done at 20 kV and 200 nA. Synthetic standards were used for La, Ce, Nd, Pr, Sm, Ho, Dy, and Gd. Apatite was used as standard for P, yittrium aluminum garnet (YAG) as Y, corundum for Al, hematite for Fe, and orthoclase was used for Si. Uncertainties in the individual analysis in the table and weighted mean ages are quoted at 95% confidence level. The age estimations were simultaneously checked with two monazite grains with ages of 2546 Ma (isotope dilution–thermal ionization mass spectrometry) and 1033 Ma (sensitive high-resolution ion microprobe [SHRIMP] zircon), respectively. Other calibration details are same as described in Bhandari et al. (2011). Monazite analysis at the National Institute of Polar Research, Japan, was carried out using a JEOL-JXA 8200 microprobe. Analytical conditions were maintained at 15 kV accelerating voltage and 200 nA probe current. The age estimations were simultaneously checked with monazite grains with SHRIMP zircon age of 1033 Ma. Other calibration details are same as described in Hokada and Motoyoshi (2006).