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DATA REPOSITORY

for

Tectonics, exhumation and drainage evolution of the Eastern Himalaya since 13 Ma from detrital geochemistry and thermochronology, Kameng River Section, Arunachal Pradesh

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Data repository Table DR1: Trace element data for all samples

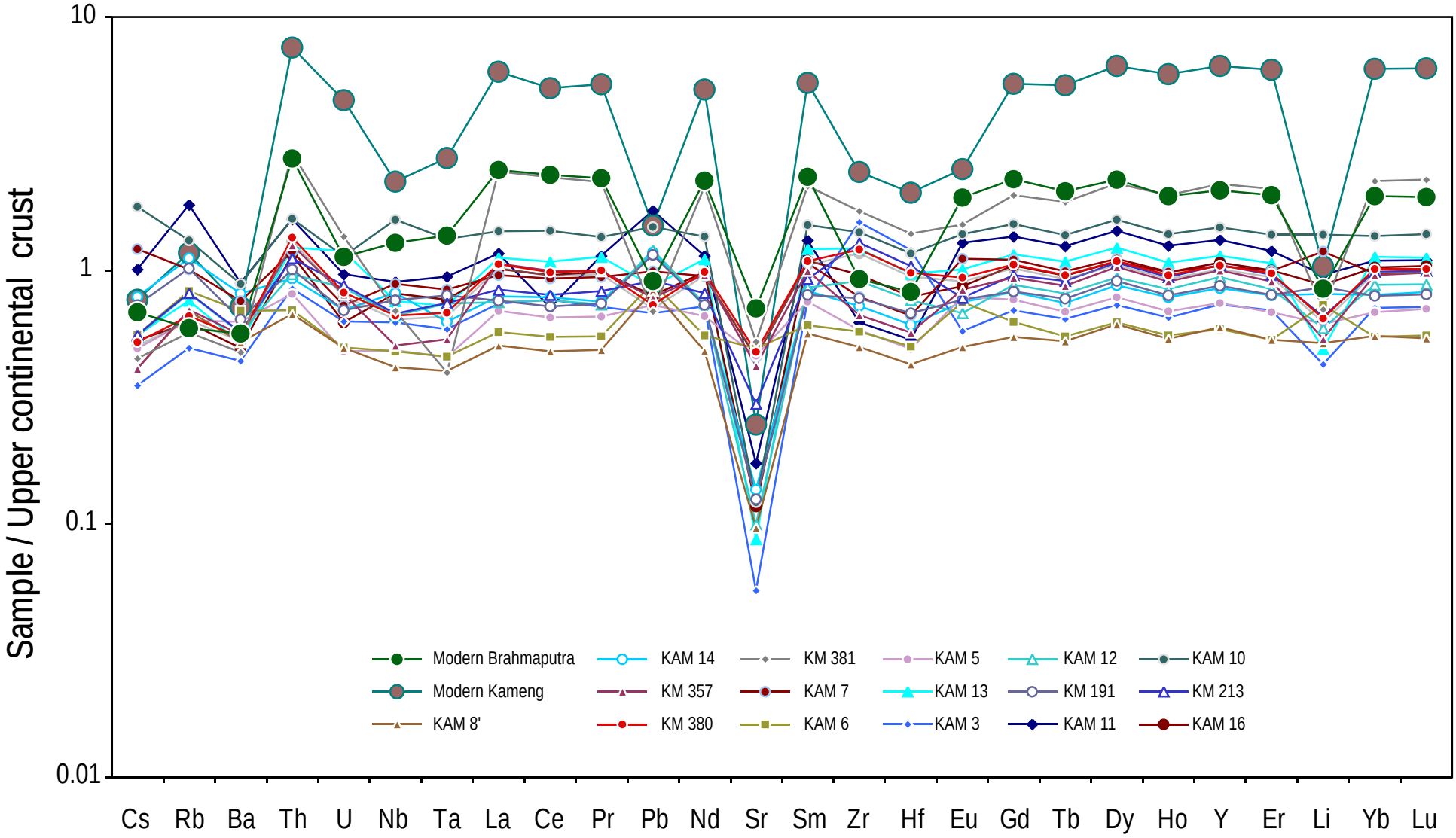
Data repository Figure DR1: Trace element patterns

Data repository Figure DR2: Apatite fission-track age probability density plots

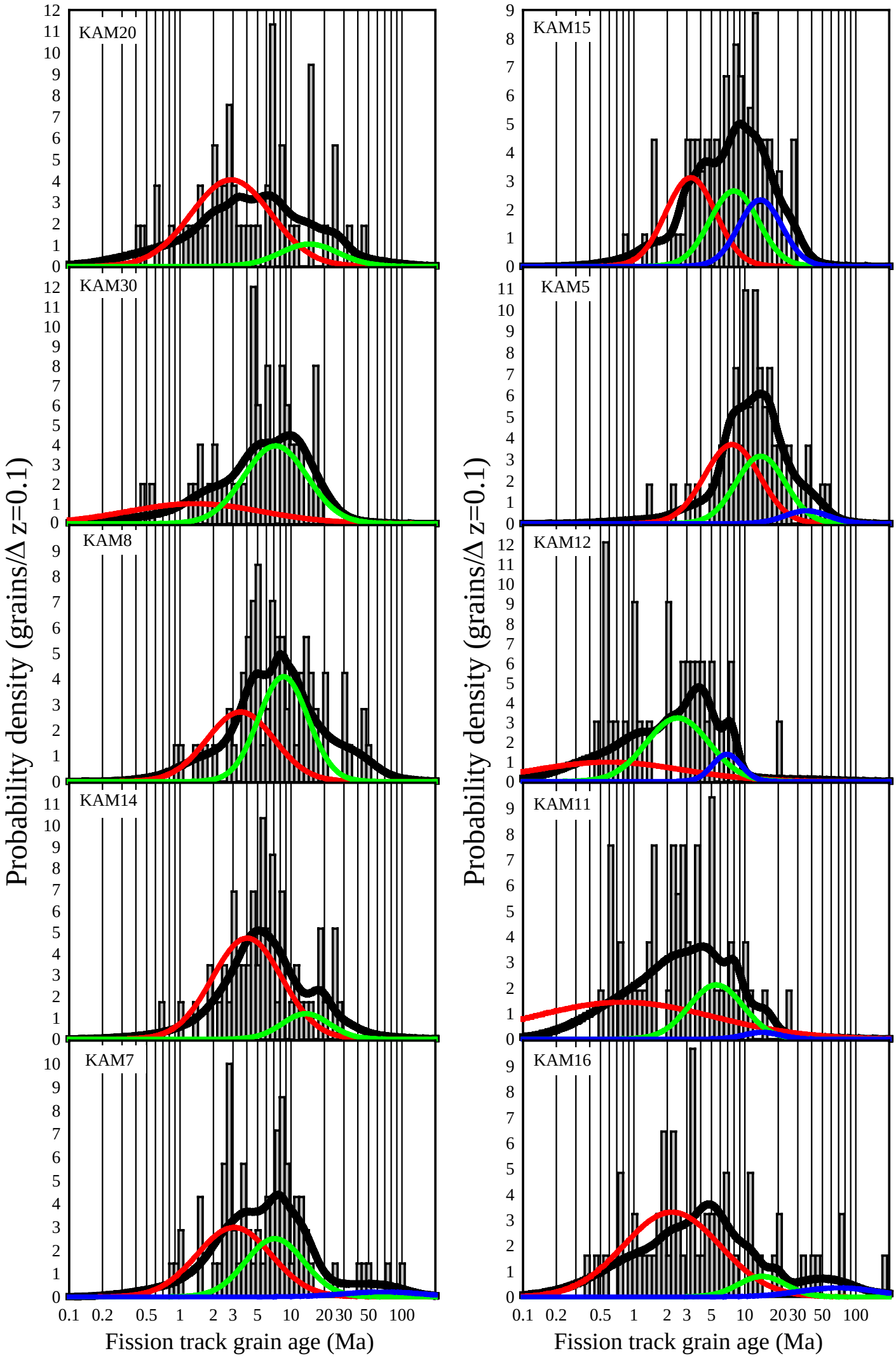
Data repository Figure DR3: Zircon fission-track age probability density plots

Chirouze et al. Data repository Table DR1: Trace element concentrations, Kameng section samples

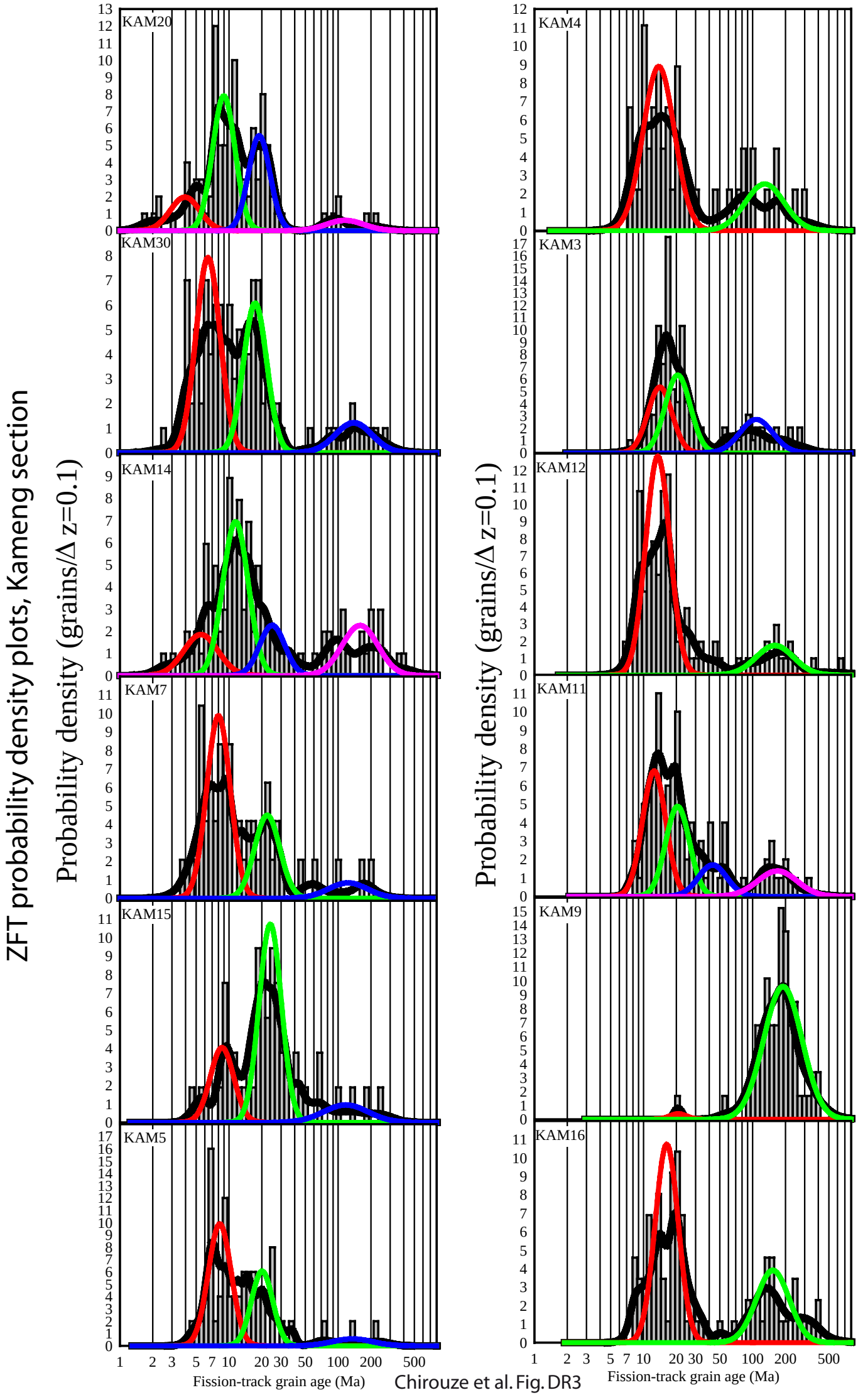
(ppm)	Modern Brahmaputra	Modern Kameng	KAM 8'	KAM 14	KAM 357	KAM 380	KAM 381	KAM 7	KAM 6	KAM 5	KAM 13	KAM 3	KAM 3 duplicate	KAM 12	KAM 191	KAM 11	KAM 10	KAM 213	KAM 16	BHVO-2	JSd-2
Li	16.9	20.7	10.3	16.1	10.7	12.9	14	23.7	14.6	12.3	9.78	8.5	9.8	11.8	17.1	19.2	27.6	13.1	17.5	4.53	22.3
Sc	16.2	21.2	4.12	5.6	7.14	9.05	15.1	8.47	6	6.89	6.31	3.36	2.91	4.56	7.56	11.3	11	6.93	6.34	30.9	17
Ti	4614	6111	1050	1757	1720	2340	4030	2782	1660	1724	2041	1601	1667	1425	1970	2176	3842	1690	1990	15561	3360
V	106	76	21.5	33	33.3	47.5	69.4	56.5	34.8	36.7	25.3	17.5	17.8	23.9	36.1	43.8	70.1	27.7	34.8	304	121
Cr	98.5	78.6	17.6	29.9	28.9	39.4	69.1	47	26.9	28.9	22.5	16.8	16.2	29.9	35.1	39.3	62.3	27.8	26.9	275	102
Co	12	15.6	2.96	5.04	4.3	5.83	7.67	9.92	4.73	5.11	5.38	3.89	3.72	3.74	6.3	10.3	11.9	4.38	5.64	43.7	46.8
Ni	28.7	27.7	12.1	11.7	10.9	15.2	15.4	25.1	13.3	13	10.9	6.68	6.54	10.5	16.2	18.4	27.8	12.4	11.6	115	88.2
Cu	5.84	32.7	27.1	7.52	2.97	4.83	3.23	8.16	4.21	3.52	6.76	2.96	2.98	4.47	79.9	6.78	24.3	6.24	3.23	129	1142
Zn	54.1	96.4	47.8	36.1	23.4	34.2	43.5	48.4	26.7	25.3	37.2	22.6	19.5	34	76.9	60.1	70.2	33	36.7	100	1991
As	1.43	25.9		2.57				23.1		8.15	1.89	1.44	0.751	2.85		6.5	1.87		6.1	1.02	37.7
Rb	66	131	77.1	125	78	73.8	63.5	113	92.7	70.8	85	55.3	45.1	90.6	114	203	147	91	69.3	8.87	25
Sr	247	86.1	33.7	47.7	147	167	183	159	172	161	30.3	19.1	14.4	34.8	43.7	60.5	42.5	104	40.9	402	213
Y	45.4	141	13.1	18.7	22	23	48.2	22.9	12.9	16.3	25.1	16.1	13.8	20.7	19.1	28.9	32.4	23.1	23.6	25.8	18.1
Zr	175	464	94.5	137	126	229	325	149	109	110	231	294	261	172	147	118	268	243	182	162	95.8
Nb	15.4	26.8	4.96	9.74	6.04	7.95	8.28	10.6	5.74	5.79	9.05	7.47	7.4	7.94	9.14	10.8	19	8.08	9.72	18.6	4.24
Cd	0.0786	0.222		0.0403				0.0589		0.0475	0.0693	0.062	0.0775	0.0675		0.0434	0.0989		0.0505	0.01	1.28
Cs	3.14	3.51	1.88	3.61	1.88	2.39	2.06	5.58	2.55	2.26	2.54	1.61	1.62	2.52	3.35	4.63	8.18	2.55	2.43	0.096	1.06
Ba	309	394	286	445	307	299	261	415	380	344	284	241	240	311	352	491	486	314	271	130	1263
La	74.4	182	15.1	23.6	31.9	31.7	73.5	28.7	17.1	20.7	33.6	22.1	21.4	22.4	22.7	34.9	42.7	25.1	30.4	15.1	10.7
Ce	152	335	30.6	49.9	63.7	62.9	149	59.2	34.9	41.6	69.2	48.9	45.5	48.7	46.1	45.7	91.7	51.2	61.3	37.5	22
Pr	16.4	38.4	3.44	5.33	7.04	7.08	15.8	6.66	3.89	4.66	8	5.08	4.82	5.19	5.25	8.07	9.6	5.88	7.01	5.27	2.91
Nd	58.7	134	12.5	18.8	25	25.6	55.5	24.6	14.4	17.1	28.7	18.7	17.6	19.2	18.9	29.6	35.3	21.1	25.5	24.6	12.3
Sm	10.5	24.7	2.53	3.72	4.48	4.88	9.67	4.79	2.73	3.38	5.46	3.42	3.19	3.84	3.6	5.89	6.77	4.15	4.91	6.02	2.95
Eu	1.7	2.2	0.438	0.659	0.736	0.822	1.33	0.978	0.657	0.691	0.885	0.505	0.484	0.595	0.674	1.13	1.22	0.685	0.761	2.05	0.858
Gd	8.69	20.7	2.07	3.12	3.56	4	7.5	4.17	2.37	2.91	4.39	2.64	2.56	3.33	3.13	5.15	5.79	3.63	3.96	6.16	3.01
Tb	1.31	3.43	0.335	0.474	0.556	0.612	1.19	0.634	0.35	0.438	0.691	0.41	0.378	0.517	0.494	0.794	0.879	0.58	0.609	0.922	0.472
Dy	7.98	22.4	2.14	3.05	3.61	3.8	7.7	3.88	2.18	2.73	4.3	2.55	2.33	3.27	3.18	5.01	5.54	3.75	3.78	5.23	3.01
Ho	1.57	4.75	0.428	0.625	0.721	0.763	1.58	0.789	0.443	0.55	0.856	0.521	0.47	0.674	0.636	0.998	1.11	0.751	0.785	0.973	0.641
Er	4.55	14.2	1.22	1.83	2.08	2.24	4.81	2.29	1.22	1.57	2.45	1.6	1.39	1.94	1.84	2.74	3.17	2.21	2.3	2.52	1.91
Yb	4.31	13.7	1.21	1.76	2.1	2.23	4.95	2.13	1.2	1.5	2.48	1.56	1.36	1.93	1.74	2.4	3	2.17	2.26	2	1.89
Lu	0.621	2	0.172	0.262	0.313	0.324	0.727	0.312	0.177	0.225	0.358	0.229	0.201	0.282	0.257	0.35	0.444	0.318	0.332	0.276	0.286
Hf	4.75	11.7	2.47	3.53	3.29	5.67	8.09	3.84	2.9	2.83	5.61	6.97	6.62	4.42	3.93	3.08	6.75	6.03	4.55	4.2	2.61
Ta	1.37	2.77	0.399	0.624	0.534	0.679	0.394	0.837	0.456	0.453	0.722	0.585	0.62	0.739	0.796	0.943	1.33	0.74	0.765	1.1	0.324
Tl	0.472	0.55	0.464	0.747	0.446	0.421	0.366	0.702	0.551	0.442	0.422	0.328	0.359	0.532	0.653	0.734	0.987	0.52	0.455	0.029	0.612
Pb	15.4	25.5	14.1	20	13.2	12.4	11.7	16.8	15.1	12.4	14.7	11.5	11.7	20.4	19.5	29.2	25.2	15.4	13.5	1.56	162
Th	29.5	80.7	7.16	9.9	13.4	14.4	31	12.7	7.44	8.63	13.1	9.06	8.13	10.3	10.8	17	17.1	11.9	12.3	1.22	2.41
U	3.16	13.1	1.38	1.95	2.25	2.29	3.8	2.03	1.39	1.34	3.33	1.76	1.37	2.39	1.94	2.7	3.18	2.44	1.74	0.443	1.11



Chirouze et al. Data repository Figure DR1.



Chirouze et al. Fig. DR2, AFT probability density plots



Chirouze et al. Fig. DR3