

Supplementary Table B: Selected samples used in the diagrams (see explanations in the chapter 3.)

Reference	Locality	GPS	Rock type	Sample	SiO <sub>2</sub>	TiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MnO	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	P <sub>2</sub> O <sub>5</sub>	LOI	Total	Sc	V	Cr	Co	Ni	Ga	Rb	Sr	Ba	Zr	Nb	Cs	Pb	Cu	Zn	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	Th	U	87Sr/86Sr	143Nd/144Nd
this study	Mold Noua	N44 43 768 E21 42 529	basanite	19/175	40.20	2.09	13.60	9.52	0.19	8.32	13.40	3.01	2.46	1.19	4.35	98.33	23.9	215	220	37.8	134	18.5	59.3	1210	996	212	119.5	2.79	4.7	54.7	84	25.4	69.8	122.5	13.5	56.1	9.12	3.13	8.06	0.99	5.75	1.09	2.96	0.36	2.48	0.3	4.8	3.2	11.15	2.96	0.00	0.00
this study	Negoiu, PR	N45 36 369 E22 43 185	basanite	20/55b	40.70	2.15	15.45	9.49	0.21	5.05	12.20	3.31	2.85	1.18	5.68	98.87	18.5	174	70	30.5	70.4	18.2	81.3	1175	1415	211	100.5	5	5.1	38.5	106	28.2	71.8	121.5	12.95	49.9	9.03	2.73	8.23	0.97	5.54	0.97	2.72	0.35	2.16	0.36	4.5	4.4	10.6	2.67	0.00	0.00
this study	Negoiu, PR	N45 36 369 E22 43 195	basanite	20/58a	41.10	2.15	15.95	9.49	0.21	4.84	12.20	3.91	2.98	1.14	5.23	99.2	17	174	60	28.3	63.7	19	82.9	1325	1340	206	104	2.89	5.2	37.8	98	26.7	71.9	121	12.9	49.2	9.15	2.62	7.7	1.02	5.68	1.01	2.67	0.32	2.26	0.34	4.4	4.1	10.25	2.59	0.00	0.00
this study	Negoiu, PR	N46 36 369 E22 16 998	basanite	20/59	41.50	2.15	15.55	10.20	0.22	6.69	11.20	2.83	2.82	1.14	5.55	99.85	19.5	173	80	31.1	75.1	17.6	76.7	1350	1860	205	96.8	10.15	5	39	101	25.2	71.1	120	12.95	50.2	8.85	2.49	7.11	0.92	5.37	0.94	2.7	0.31	2.04	0.34	4.4	3.5	9.77	2.5	0.00	0.00
this study	Vartop	N46 30 742 E22 37 465	alkali basalt	19/260	47.50	1.88	11.95	11.15	0.12	9.16	9.70	2.48	0.82	0.32	4.64	99.72	23.2	183	420	52.6	280	18.7	19.8	366	209	124	25.8	6.31	3.4	45.2	109	18.1	16.2	32	4.22	16.7	4.49	1.67	5.17	0.68	4.04	0.71	1.7	0.21	1.5	0.17	3.1	1.1	2.72	0.76	0.00	0.00
this study	Baisoara	N46 35 156 E23 26 982	basalt	69/2	49.70	1.57	15.25	10.10	0.24	6.15	9.76	3.29	0.66	0.19	1.58	98.49	32.5	226	130	36.4	24.5	18.2	20.5	316	135.5	153	5.5	0.82	57.2	23.9	127	29.7	9.4	23.5	3.27	16.2	4.22	1.67	5.7	0.89	6.2	1.18	3.69	0.5	3.41	0.46	3.4	0.4	2.13	0.8	0.00	0.00
this study	Luncoara	N46 21 131 E22 38 454	basalt	19/246	50.10	1.50	13.80	12.80	0.18	6.15	10.40	2.86	0.34	0.12	1.66	99.91	44.2	339	10	45	15.8	19.3	8.3	163.5	43.7	63	2.7	0.66	7.9	54.4	102	30.5	5.3	13.6	2.19	11	3.62	1.28	5.24	0.83	6.38	1.22	3.63	0.56	3.16	0.48	2.2	0.3	0.97	0.41	0.00	0.00
this study	Ciclova	N45 01 603 E21 43 713	gabbro	19/208	50.10	0.94	13.90	8.62	0.16	6.24	12.20	2.74	2.42	0.32	1.10	98.34	28.8	323	40	25.8	18.7	17.3	69.4	926	771	75	5.2	11.7	17.6	33.9	104	19	18.1	41.4	5.5	25.2	4.84	1.34	4.05	0.66	4.2	0.75	2.28	0.27	2.06	0.25	2.2	0.4	7.53	2.42	0.00	0.00
this study	Luncoara	N45 22 183 E22 37 835	basaltic andesite	19/252	50.40	0.86	14.10	9.85	1.12	9.08	2.84	0.68	1.99	0.19	8.75	99.26	22.1	176	600	37.7	194	18.1	76.7	59.1	734	114	11.4	3.5	2510	6.8	1930	17.2	15	31.1	3.95	16.7	3.33	1.03	4.07	0.5	3.16	0.67	1.93	0.25	1.86	0.26	2.8	0.7	4.13	1.63	0.00	0.00
this study	Oravita	E45 02 820 E21 43 969	gabbro	19/226	51.10	0.76	16.00	7.50	0.13	4.48	14.45	2.33	1.57	0.32	2.73	101.37	18.8	215	40	18	21.5	22	45.5	1100	386	115	7.4	7.01	13.2	33.1	52	19.9	28.5	59.9	7.84	33.5	5.79	1.71	5.26	0.61	4.25	0.76	2.28	0.31	2.02	0.28	3.2	0.6	8.1	2.32	0.00	0.00
this study	Glimboca, V. Ramnita	N45 32 176 E22 18 302	gabbro diorite	20/77	51.70	0.86	15.85	9.28	0.21	4.22	9.14	2.59	1.57	0.29	3.24	98.95	24.1	231	40	24.1	13.6	17.9	36	602	417	126	7.8	1.97	14.7	20.8	108	21.9	25.1	51.8	6.46	26	5.76	1.55	5.58	0.71	4.35	0.8	2.42	0.29	2.19	0.36	3.4	0.4	6.98	1.95	0.00	0.00
this study	Ciclova	N45 01 907 E21 44 046	gabbro	18c31/1	54.00	0.75	17.60	8.09	0.14	4.99	8.25	3.64	1.74	0.33	1.17	100.3	18	218	10	23.5	15.3	22.3	53	1210	460	103	8.3	5.43	19.5	21	84	18.9	30.8	65.6	8.29	34.7	6.28	1.7	4.81	0.63	3.61	0.69	2.05	0.3	1.71	0.28	3.1	0.5	12.25	3.44	0.00	0.00
this study	Luncoara	N46 21 131 E22 38 454	basaltic andesite	19/247	54.60	1.15	15.05	9.60	0.16	3.89	8.52	3.49	0.20	0.20	1.84	98.7	19.6	202	30	35.7	22.3	21.5	4.4	165	54.9	112	3.1	0.16	11.8	60.4	70	21.7	9.3	18.9	2.63	11.3	2.62	1.21	3.58	0.51	3.95	0.76	2.38	0.4	2.55	0.37	2.9	0.4	4.17	1.7	0.00	0.00
this study	Jdioara	N45 36 783 E22 08 344	Qtz gabbro	20/83A	55.10	0.90	14.50	7.24	0.17	7.03	7.72	2.84	1.65	0.20	1.54	98.89	27.4	178	380	27.4	73.5	15.5	76.6	412	304	124	8.4	4.8	9.7	111.5	94	18.7	26.6	55	6.31	26.1	5.23	1.37	4.71	0.63	3.85	0.7	2.1	0.27	1.83	0.3	3.3	0.5	9.62	16.85	0.00	0.00
Gallhofer, 2015			basalt	DG027	46.38	0.84	13.86	8.75	0.16	12.39	8.59	1.65	0.88	0.20	6.57	100.26	26.2	171.2	127.1	42.7	143	14.1	40.4	240.4	198.9	78.8	10.4	0.5	2.3	0	0	16.1	13	29.3	3.6	15.3	3.4	1.1	3.6	0.5	3	0.6	1.5	0.2	1.6	0.3	1.9	0.6	2.4	0.8	0.704684	0.512963
Vander Auwera et al., 2015			gabbro	98R10	48.44	0.93	16.79	10.27	0.15	7.45	11.51	1.98	0.31	0.58	1.55	99.95	0	46	12	5	44.4	16	162	1286	847	136	10	7	29	0	0	20	44.44	80.52	8.82	30.49	5.7	0.99	4.77	0.62	3.16	0.7	1.78	0.3	1.89	0.27	4	1	18	4.1	0.704167	0.512757
Gallhofer, 2015			gabbro	DG031	49.87	1.28	16.62	8.03	0.21	6.56	11.50	3.28	0.86	0.25	1.74	100.2	29.8	269.4	49.8	24	15.9	17.6	27.9	548.6	246.8	91.1	7.8	2.3	25.1	0	0	22.1	23.9	52.9	6.8	29.8	6.3	1.7	4.7	0.8	4.6	0.9	2.4	0.3	1.9	0.3	2.4	0.5	4.7	1.2	0.707074	0.512442
Vander Auwera et al., 2015			gabbro	95R15	50.12	0.64	15.37	7.81	0.14	4.87	13.28	2.65	1.32	0.39	3.41	99.99	0	142	26	19	25.9	16	43	1328	357	75	4	7	22	0	0	21	30.42	55.7	6.83	30.98	6.32	1.49	4.79	0.77	3.8	0.78	1.99	0.31	1.98	0.3	3	0	6	1.9	0.70545	0.512686
Gallhofer, 2015			gabbro	DG034	51.13	1.12	17.52	9.96	0.15	4.57	8.21	3.58	1.96	0.45	1.31	99.95	21.1	255.3	45.1	25.7	20.2	18.6	58.4	1062.6	609.4	92.6	5.4	2.2	11.3	0	0	24.2	30.4	66.1	7.9	35.6	7.4	2	6.7	0.7	4.8	0.9	2.8	0.3	2.1	0.3	2.6	0.3	6.6	1.7	0.704696	0.512564
Gallhofer, 2015			gabbro	DG024	51.31	1.00	16.59	8.77	0.20	6.42	7.49	2.94	3.21	0.52	1.68	100.13	20.3	227.1	51.5	27.9	251.1	17.1	104.9	1006.4	839	168.8	7.6	6.4	6.6	0	0	21.4	38.4	85.9	10.3	42.8	7.7	2.2	6.8	0.7	4.5	0.8	2.5	0.3	2	0.2	3.8	0.5	12.5	3.7	0.705793	0.512581