

Supplementary Table A: All analyzed rocks. The holocrystalline rock names is according to QAPP diagram (Streckeisen, 1974)

Streckeisen, Albert (1974). "Classification and nomenclature of plutonic rocks: recommendations of the IUGS subcommission on the systematics of Igneous Rocks". Geologische Rundschau. 63 (2): 773-786.

Rock type	Locality	GPS	Sample	SiO ₂	TiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MnO	MgO	CaO	Na ₂ O	K ₂ O	P ₂ O ₅	LOI	Sum	Sc	V	Cr	Co	Ni	Ga	Rb	Sr	Ba	Zr	Nb	Cs	Pb	Cu	Zn	As	Bi	Sb	Te	Ag	Cd	Li	Mo	Y	Y/Nb	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Ta	Th	U					
basaltite	Moldova Noua	N44 43 768	E21 42 529	19175	40.2	2.09	13.6	9.52	0.19	8.32	3.01	2.46	1.19	4.35	98.33	23.9	215	220	37.8	134	18.5	59.3	1270	996	212	119.5	2.79	4.7	54.7	84	5	0.03	0.16	0.08	0.05	0.17	10.8	6.57	25.4	0.21	69.8	122.5	13.5	56.1	9.12	3.13	8.08	0.99	5.75	1.09	2.96	0.36	2.48	0.3	4.8	3.2	11.15	2.96			
basaltite	Negou	N45 36 369	E22 43 195	20558	40.7	2.15	15.45	9.49	0.21	5.65	12.2	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	3	0.02	0.1	0.12	0.01	0.18	68.8	7.72	26.2	0.26	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		
basaltite	Negou	N45 36 369	E22 43 195	20558a	41.1	2.15	15.95	9.49	0.21	4.84	12.2	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	2	0.02	0.09	0.11	0.01	0.18	51.6	6.46	26.7	0.26	71.9	121	12.9	49.2	9.15	2.62	7.7	1.02	5.58	1.01	2.67	0.32	2.26	0.34	4.4	4.1	10.25	2.59		
basaltite	Negou	N45 36 369	E22 16 989	20559	41.5	2.15	15.55	10.2	0.22	6.69	11.2	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	2.3	0.02	0.08	0.12	0.01	0.16	134.5	6.8	25.2	0.26	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		
alkali basalt	Vatrop	N45 30 742	E22 37 465	19260	47.5	1.88	11.95	11.15	0.12	9.16	9.7	2.48	0.82	0.32	4.64	98.72	23.2	163	420	52.6	280	18.7	19.6	366	209	124	25.8	6.31	3.4	45.2	109	0.6	0.02	-0.05	0.2	0.03	0.12	30.1	1.51	18.1	0.70	16.2	32	4.22	18.7	4.49	1.67	5.17	0.68	4.04	0.71	1.7	0.21	1.5	0.17	2.72	0.76				
basalt	Batoara	N45 35 156	E22 28 982	892	49.7	1.57	15.25	10.1	0.24	6.15	9.76	3.39	0.66	0.19	1.58	98.40	32.5	228	130	36.4	24.5	18.7	20.5	316	185.5	153	5.5	0.82	57.2	23.8	127	13.1	0.2	0.14	0.15	0.1	0.4	15.5	0.77	28.7	5.40	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		
basalt	Luncsoara	N46 21 131	E22 38 454	19246	50.1	1.5	13.8	12.8	0.18	6.15	10.4	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	21.6	0.01	0.32	0.07	0.02	0.19	8.7	0.41	30.5	11.30	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		
monzogabbro	Ciclova	N45 01 603	E21 43 713	19208	50.1	0.94	13.5	8.62	0.16	6.24	12.2	2.74	2.42	0.32	1.1	98.34	28.8	323	40	25.8	18.7	17.3	69.4	406	771	76	5.2	11.7	17.6	33.9	104	6.8	0.04	0.31	0.29	0.06	0.24	85.5	1.31	19	3.65	18.1	41.4	5.5	25.2	4.84	1.34	4.65	0.66	4.2	0.75	2.28	0.27	2.06	0.25	2.2	0.4	7.53	2.42		
basaltic andesite	Luncsoara	N46 22 183	E22 37 835	19252	50.4	0.86	14.1	9.85	1.12	9.08	2.84	0.08	1.99	0.19	8.75	99.26	22.1	176	600	37.7	194	18.1	78.7	59.1	734	114	11.4	3.5	25.10	6.6	1930	0.4	4.75	0.39	0.07	2.78	23.1	104.5	1.9	17.2	1.51	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		
gabbro	Oravita	N45 02 820	E21 43 989	19228	51.1	0.76	16	7.5	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	389	115	7.4	7.01	13.2	33.1	52	3.7	0.01	0.16	0.04	0.05	0.18	45	0.52	39.9	2.69	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		
gabbro diorite	Glimboc, V. Raminia	N45 32 176	E22 18 392	2077	51.7	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	622	417	126	7.8	1.97	14.7	20.8	108	1.8	0.02	0.1	0.02	0.04	0.19	19.4	0.84	21.9	2.81	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		
gabbro	Ciclova	N45 01 907	E21 44 046	18c31/1	54	0.75	17.6	8.09	0.14	4.59	8.25	3.64	1.74	0.33	1.17	100.3	18	218	10	23.5	15.5	22.3	53	1210	460	103	8.3	5.43	19.5	21	84	3.2	0.07	0.17	0.24	0.06	0.13	19.3	2.56	18.9	2.28	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		
Qtz monzogabbro	Oena de Fier	N45 20 915	E21 46 387	19184b	54.2	1.04	20.8	9.72	0.16	1.98	4.41	1.06	4.03	0.08	2.59	100.07	15.4	140	120	28.7	63.1	34.3	144.5	631	179	20.1	4.29	17.8	110	148	7	0.21	0.5	0.42	0.05	0.03	64.7	0.24	30.7	1.53	64.4	124	15.05	57.3	9.93	2.23	8.26	10.8	3.66	1.24	3.65	0.51	3.37	0.41	5.3	1.5	22.8	3.06			
basaltic and	Luncsoara	N46 21 131	E22 38 454	19247	54.6	1.15	15.05	9.6	0.16	3.89	8.52	3.49	0.2	0.2	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	20.6	0.02	0.37	0.02	0.02	0.22	9.1	0.94	21.7	7.00	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		
Qtz gabbro	Jdoara	N45 36 783	E22 08 344	2083A	55.1	0.9	14.5	7.24	0.17	7.03	7.72	2.84	1.65	0.2	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	0.6	0.19	0.05	0.12	0.07	0.09	26.2	0.86	18.7	2.23	26.6	55	6.31	26.1	5.23	1.27	4.73	1.49	4.27	0.55	3.11	0.58	1.78	0.22	1.48	0.26	3.3	0.3	7.93	2.54
monzodiorite	Jdoara	N45 36 783	E22 08 344	2083b	56.1	0.81	15.95	7.49	0.18	5.38	6.86	3.84	2.37	0.21	1.12	100.11	25.6	185	160	21.8	40.1	18.8	105	372	410.0	117	12.2	3.26	15	19.2	101	1	0.09	0.14	0.03	0.03	0.09	20.3	1.16	27.9	2.29	31.5	68.3	8.21	33.5	7.48	1.7	6.2	0.84	5.24	1.03	2.85	0.41	2.79	0.45	3.6	0.8	10.4	5.78		
Qtz diorite	Halmagel	N46 18 174	E22 38 586	19151	56.7	0.87	17	8.02	0.14	3.75	6.94	3.35	2.16	0.25	1.29	100.47	22.8	202	10	21	4.4	20.3	64.1	563	520	106	6.8	2.32	19.3	9.5	99	3.4	0.04	0.41	0.23	0.05	0.15	26.2	0.75	20.8	30.6	18.9	39.9	5.02	21.9	4.96	1.59	5.26	0.73	4.3	0.73	2.17	0.32	2.05	0.31	3	0.7	6.2	2.04		
Qtz diorite	Obeja	N45 41 699	E21 46 387	19167	57	0.77	17.15	7.37	0.13	3.45	6.69	3.71	1.94	0.21	0.29	98.71	17	176	20	17.4	13.6	17.5	55.3	467	308	119	4.5	2.78	15.6	13.8	98	2.2	0.08	0.22	0.18	0.04	0.11	15.3	1.36	21.4	4.76	15.7	32.9	4.01	16.9	3.97	1.08	3.97	0.61	4.26	0.79	2.48	0.29	2.3	0.5	3.5	0.3	5.97	1.81		
Qtz diorite	Oena de Fier	N45 20 369	E21 46 098	19167	57.1	0.89	16.2	6.69	0.11	4.68	6.51	3.43	1.89	0.24	1.5	99.24	20.6	171	110	22.2	49.7	20	61	472	493	156	9.6	3.44	11.2	22	66	1.3	0.15	0.14	0.3	0.05	0.11	19.2	0.37	21.5	2.24	24.2	50.2	6.31	27.2	5.87	14.5	5.11	0.73	4.31	0.8	2.41	0.34	2.06	0.25	4.4	0.8	8.36	2.47		
Qtz monzodiorite	Glimboc, V. Alanaru	N45 32 346	N22 18 451	2076	57.6	0.61	17.3	6.51	0.08	3.45	5.73	3.07	2.64	0.23	2.52	99.67	16.7	144	40	18.5	18.8																																								