

THE VEIN CARBONATES IN THE VEPORICUM UNIT (WESTERN CARPATHIANS)

HVOŽDARA, P. (Comenius University, Faculty of Natural Sciences, Dept. of Mineral. and Petrology, Bratislava, Slovakia); IRÓ, S. (Comenius University, Faculty of Natural Sciences, Geological Institute, Bratislava, Slovakia). E-mail: iro@fns.uniba.sk

The vein carbonates in the Veporicum crystalline complex belong to the typical accompany minerals of ore mineralizations. They occur mostly in metamorphic rocks of NW part of the Veporicum (so called Ľubietovská, Krakľovská, Kráľovohľská and Kohút zone) and they are typical for Cu deposits (Ľubietová - Liebethen, Kolba), Fe (Tri Vody - Háromváz), Fe (Čierny Balog - Fekete Balog), in the SW part predominantly in the deposits Uderiná, Lovinobaňa, Cinobaňa, together with Au mineralization. Carbonates are part of quartz-sulphide mineralization. We found out that they have Mg-Fe composition (Fe-magnesite, ankerite, named in previous reports only as siderite). The results (HVOŽDARA & IRÓ, 1999; IRÓ, 1996) of vein carbonates in the Veporicum metamorphites (which are the typical part of quartz – sulphide ± (Au) mineralizations) showed, that they are isomorphous mixtures of Mg-Fe carbonates (named as mesitite, breunnerite in previous reports).

Table 1: Carbonates of Veporicum (oxide content in weight%, element content in mol%).

Locality	1	2	3	4	5	6
CaO	0,67	28,90	1,52	1,04	0,52	27,60
MgO	21,63	17,90	34,15	32,78	27,72	11,39
Fe ₂ O ₃	1,88	---	---	1,73	1,20	
FeO	29,15	5,48	16,24	15,18	21,92	13,13
MnO	1,22	0,42	0,38	1,37	1,19	1,6
CO ₂	42,02	45,30	47,46	46,51	45,94	43,16
IR	1,95	1,83	---	1,78	0,64	
Σ	99,46	99,83	99,75	100,39	99,13	96,92
Ca		49,08				51,25
Mg	55,57	43,56	78,91	77,74	68,25	30,00
Fe	44,43	7,36	21,09	22,26	31,74	18,75
Total	100	100	100	100	100	100

1: Ľubietová - Svätodušná – mineral ferromagnesite (mesitite); 2: Ľubietová – Fe-dolomite-ankerite 3-5: Čierny Balog – 3 - ferromagnesite (breunnerite), 4 - Fe-dolomite - ankerite, 5 - ferromagnesite (mesitite); 6: Uderiná (ankerite), IR - insoluble rest

References

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