

*Studia breviora*

## Net data about the comagmatic character of volcanic rocks in the Central Rhodope Mountains (South Bulgaria and Northern Greece)

Acid volcanics and volcanoclastics occur in several small bodies in the area of the town of Pefki (Northern Greece), about 10 km from the Greek-Bulgarian border (Sklavounos, Kassoli-Fournaraki, 1989). The bodies cross-cut the Upper Cretaceous (Kamenov et al., 1990) Parane-sti granite and high-grade metamorphics. The bodies are not directly related to the two Oligocene (mainly Lower Oligocene — Innocenti et al., 1984; Peczkay et al., 1991) ignimbrite massifs, situated at about 8-10 km on the territories of Bulgaria (the Perelik massif) and Greece (the Kotili — Vitinya massif). The rocks of one of the volcanoclastic bodies have been described in more details (Sklavounos, Kassoli-Fournaraki, 1989). They are built up of "dark volcanic matrix" and clasts of granite, metamorphics and acid, volcanic rocks. The phenocrysts within the volcanic matrix are sanidin, plagioclase, quartz and altered mafic mineral; the  $K_2O$  and  $SiO_2$  content of the matrix refers it to the HKCA series.

The volcanic matrix has the composition of HK-rhyodacites when plotted on the Peccerillo-Taylor's (1976) diagram in its version (Dabovskii et al., 1989). Its points plot in the field of the Kotili — Vitinya ignimbrites. However, the content of  $K_2O+Na_2O$  in the matrix is considerably lower when compared both to the Kotili — Vitinya and the Perelik massifs (Table 1) The content of the main RRE is similar to that in the two massifs (Table 1) which is particularly obvious when comparing the corresponding chondrite-normalized curves

Table 1

	1. Volcanic matrix		2. Perelik HARI massif		3. Kotili-Vitinya HARI massif	
	max	min	max	min	max	min
$SiO_2$	70.94	69.64	74.43	70.39	72.93	65.40
$K_2O$	4.40	4.23	5.48	3.91	4.59	3.86
$K_2O+Na_2O$	6.94	6.36	8.87	7.05	8.20	7.32
<b>RRE</b>	(average of 6 analyses)		(average of 12 analyses)		(average of 3 analyses)	
La	32.69		41.16		38.77	
Ce	58.26		67.41		71.03	
Sm	3.94		4.09		4.37	
Fu	0.62		0.70		0.84	
Yb	2.04		2.19		2.23	
Lu	0.32		0.31		0.36	

Remark. All the data with exception of the RRE contents in the Perelik volcanics are published by Sklavounos and Kassoli-Fournaraki, 1989 (for column 1), Harkovska, 1990 (for column 2) and Soldatos, 1961, Innocenti et al. 1984 and Elefteriadis, 1991 (for column 3).

These preliminary data allow for the conclusion that the acid volcanoclastics and the associated volcanics in the area of Pefki are related to the Tertiary magmatic activity. Their age should be therefore similar to the age of the ignimbrite massifs — Oligocene (Lower Oligocene). The detailed petrologic and structural characteristics of that volcanoclastics would be of particular interest in view of the discussion (review in Harkovska et al., 1989) on the character of the feeding structures of the Tertiary igneous rocks in the Central Rhodope Mountains

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