

MAGNETIC ANISOTROPY OF TERTIARY GRANITOIDS FROM THE VARDAR ZONE (KOPAONIK AREA, SERBIA)

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The Kopaonik area, the subject of our study, belongs to the Vardar zone and is situated in the South part of Serbia. In this block there are intrusions of granodiorites which are dated as of Lower Oligocene age such as the Kopaonik, Željin, Drenje massifs and the Kremiče satellite body which is significant for altering Tertiary dacito-andesite extrusions of the Ibar area. In addition, there is a granite body (Polumir) which is of lower Miocene age. The granitoids intruded regionally metamorphosed Paleozoic sediments and Jurassic ophiolites, forming an anticlinorium with an undulating axis striking N-S. The Kopaonik massif has a zonal distribution: the central part is of porphyritic quartz monzonite and granite, in the southwest there is porphyritic granodiorite, while in the north normal grained granodiorite is prevailing with fine-grained granodiorite and quartz diorite toward the margin. Along the northwest margin endomorphically altered diorite occurs. Željin and Drenje intrusions are of normal-grained granodiorite, Kremiče is of fine grained-granodiorite and quartz diorite composition. We studied the AMS of 202 samples from 19 localities representing mostly the four granodiorite intrusions, subordinately dacito-andesite extrusions, calcareous schists and the schistose granite body of Polumir. Within and between the granodiorite intrusions there is a great variation of both the susceptibilities ($146\text{--}49044 \times 10^{-6} \text{SI}$) and the degrees of AMS (5.6–61.4%) variations. The magnetic fabric is typically foliated. The orientations of the schistosity planes vary between near-horizontal (Polumir) and near-vertical. Nevertheless, it is possible to recognize trends in the orientations. The strikes of the schistosity planes of the oldest dacito-andesites and of several localities in the Kopaonik and Željin massifs are sub-parallel to the N-S trending axis of the Kopaonik anticlinorium and seem to be related to a compressional tectonic phase (D3). In the northern part of the Kopaonik massif, in the whole Drenje massif and in the Kremnice massif the strikes of the schistosity planes are basically E-W trending. The formation of such fabric must have post-dated the D3 tectonic phase, thus the respective bodies were probably emplaced during the prevalence of the extensional D4 phase.

magnetic fabric, granitoids, Vardar zone

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