The virtual geomagnetic pole positions of the Neogene volcanics from Kremnické vrchy Mts., Slovakia: Field-reversal versus self-reversal hypothesis (Part XIV)

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A b s t r a c t : The virtual geomagnetic pole (VGP) positions have been computed from the stable directions of the remanent magnetization (RM) of the Neogene volcanics from the Kremnické vrchy Mts. The rocks from 97 localities were tested. The rocks from only 33 localities (16 of them were the rhyolites) have shown VGP positions which could correspond to nearly regular position of the field. The VGP positions of rocks of other 64 localities, regardless the polarity of RM of rocks and the name of geological formation, are dispersed casually, mostly at lower geographical latitudes. They have not reflected any consistency, neither with the VGP derived for year 1983, nor with those derived mean VGP positions for the Jastrabá formation, the Vlčí vrch formation, and for the selected localities of the Kremnický štít, Krahule and Flochová formations. The direction of the RM and the derived VGP positions have been largely dispersed. These large dispersions of the VGP positions for the respective directions of the RM of the rocks have not been explained by any casual - irregular dynamics of the field. The too complex magnetizing processes from the time of origin of the rocks and during their survival in the field are responsible for the very variable directions of the RM of the rocks, and consequently for the casual - irregular VGP positions.

Key words: casual-irregular VGP positions, too complex magnetizing processes of the Neogene volcanics

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