

level (1σ). Usually it varies around 3 % relative. Despite the perfect sample preparation and analytical work some results are dubious owing to natural reasons and should be eliminated from further consideration. There are several ways to check reliability of results: (1) K-concentration should correspond to the dated phase; (2) percentage of $^{40}\text{Ar}_{\text{rad}}$ should be high enough; (3) consistent results on different fractions/phases; (4) consistent results on samples of the same unit (statistical testing); (5) testing by the isochrone method – identification of phases with excess $^{40}\text{Ar}_{\text{rad}}$ (xenocrysts and/or plagioclase and amphibole phenocrysts) and $^{40}\text{Ar}_{\text{rad}}$ loss (glass). One has to be always aware of statistical aspects, especially confidence interval of a single datum. Appropriate statistical methods should be used in evaluation of multiple data. With multiple data for geological units differences in age smaller than error of a single datum can be recognized – one of the possibilities is a graph of normal distribution densities. If results do not fit with geological relationships something must be wrong – either radiometric dating or more likely our geological assumptions. Our results on rhyolites and related mineralizations of Kremnické vrchy are in other presentation of Lexa and Pécskay.

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Mineralogical–Geochemical Study of Uranium Bearing Granite Phases in Paranesti Area, N. Greece

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This study concerns the petrological-geochemical characters of the “granite type” rocks from Paranesti area, in which I.G.M.E. has localized the most important uranium ores in Greece. Their mineralogical phases are examined and they are correlated with the geochemical data of the major elements, as well as with some of the trace elements from mineralized samples of the area.

Raman spectroscopy as a tool to distinguish grossular/hydrogrossular from vesuvianite in rodingites from the Othrys ophiolite (central Greece)

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Raman Spectroscopy was employed to confirm the presence of hydrogrossular, rather than vesuvianite, in rodingites of the Othrys ophiolite suite, central Greece. The Raman spectra obtained from the fine-grained, weakly birefringent minerals, with anomalous bluish-grey interference colours documented the presence of hydrogrossular by its characteristic bands at ~360-362, 534-537, 817-819, 870-872 and 3600 cm^{-1} . No Raman spectra indicative of vesuvianite were obtained precluding the existence of this phase. The absence of vesuvianite implies that the metasomatising fluid phase was rather rich in CO_2 , an observation which is also verified by the abundance of calcite and assists in further studying the evolution of these rocks.