

Geochemical characteristics of Kuroski volcanic rocks in northwestern Noto peninsula; Fractional crystallization of high-K series

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Potassium-rich volcanic rocks are limited in abundance, but are widespread in various tectonic settings. The Late Miocene Kuroski volcanic rocks in the northwestern Noto peninsula, central Japan have intermediate compositions ranging from basaltic-andesite to dacite. All these rocks are enriched in potassium and contained in the high-K series field of the K_2O-SiO_2 diagram. These rocks evolved from a single parental magma through fractional crystallization. The reason for high-K nature of these rocks are not due to contamination or secondary effect. Kuroski volcanic rocks may be related to the alkali basalt magmatism widespread in southwestern Japan.