Magnetic susceptability studies of basic igneous rocks of Peninsular Malaysia

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Magnetic susceptability values of the basic igneous rocks of Peninsular Malaysia range from 10^{-4} to 10^{-1} SI. Values of 10^{-4} to 10^{-3} SI for the gabbroic rocks of Singapore and southern Johore are unusually low for this rock type and indicate that the opaque phase present is ilmenite. The Singapore dolerite dykes have an identical low susceptability, but the hybrid rocks of Pulau Ubin mostly have high susceptabilities of 10^{-2} to 10^{-1} SI. The extrusive rocks of Segamat have susceptabilities in excess of 10^{-2} SI, except for those which are oxidised, which mostly have susceptabilities in the range 10^{-2} to 10^{-1} SI. The dolerite dykes at Kuantan have susceptabilities of 10^{-2} to 10^{-1} SI, identical to values for olivine nephelinites which are found in the same area. Alkaline olivine basalts associated with the nephelinites have a bimodal susceptability distribution with peaks at 10^{-2} and 10^{-3} SI. Amongst these similar looking rocks at Kuantan only the lower susceptability group of alkaline olivine basalts can be positively discriminated on grounds of magnetic susceptability.

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