

Mesozoic mafic dykes from the Eastern Belt — Part II: Geochemistry of the younger dykes

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Mafic to intermediate Carboniferous dykes are common throughout the Eastern Belt of Peninsular Malaysia. They are mainly dolerite, containing mainly plagioclase, clinopyroxene, quartz and opaque phases. They plot in the basalt-trachybasalt-basaltic and andesite-basaltic trachyandesite fields in a total alkali silica diagram (TAS diagram). The SiO₂ content of the dykes are between 46.4 to 58.68% (mean 50.97%) and are both quartz and olivine normative. They evolved from saturated (Ol-Di-Hy) to over saturated (Di-Hy-Q) basaltic magmas ranging in composition from olivine tholeiite to quartz tholeiite. The geochemical data indicate that the dykes magma is tholeiite, and similar to the magma formed in a continental within plate tectonic setting.