

Geochemistry of mafic dykes from Perhentian and Redang islands: an example of petrogenesis of the younger (dolerite) dykes from the Eastern Belt of Peninsular Malaysia

AZMAN A. GHANI¹, KHOO T.T.¹ & GRAPES, R.²

Department of Geology
University of Malaya
50603, Kuala Lumpur

²School of Earth Sciences
Victoria University of Wellington
New Zealand

Mesozoic mafic dykes in the Perhentian islands and their surrounding area can be divided into two types, based on their field occurrence, i.e. the older and younger dykes. The older dykes are synplutonic to their felsic host and the younger dykes post date their felsic host. The younger dykes, which are more abundant, are mainly doleritic in composition and are similar to those found throughout the Eastern Belt of Peninsular Malaysia. They are made up of plagioclase, clinopyroxene, amphibole, iron ore and chlorite. The silica content of the dykes is between 47.17 to 53.7% and can be classify as basalt, trachybasalt and basaltic trachyandesite. Geochemical study shows that the younger dykes formed in a continental within plate tectonic setting.