

Rare-earth and trace element patterns of Langkawi granites

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Eleven samples of the Langkawi granites have been collected and analysed for their REE and trace elements. Examinations of the REE patterns show that they have the usual 'bird-wing' shape with weak to moderately strong negative Eu anomalies. This pattern is similar to the West-coast S-type granites and is different from the I-type granites of the East coast. Based on the Eu anomalies, granites of Penerak, Pulau Bumbon and Pulau Tuba seem to have moderately strong negative Eu anomalies, whereas those of Gunung Raya batholith have weak negative Eu anomalies. Rb:Sr ratios also show similar differences with Rr:Sr ratios in Penerak, Pulau Bumbon, and Pulau Tuba granites being much higher than those of Gunung Raya. Pulau

Warta Geologi, Vol. 25, No. 3, May–Jun 1999

Daya Bunting granite seems to have affinity to that of Gunung Raya rather than of Pulau Tuba. A possible source material for the Langkawi granite is the Cambrian sediments of the Machincang formation.
