

EPMA characterisation of ilmenite from *amang* of the Kinta and Klang Valleys, Peninsular Malaysia

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Samples of heavy minerals concentrates were collected from the Kinta Valley and the surrounding areas of the Klang Valley to characterise ilmenite (FeTiO_3) both physically and chemically using the EPMA (electronprobe microanalyzer).

The ilmenite grains in both valleys are not homogeneous and are associated with other heavy minerals that include monazite, xenotime, zircon, rutile, cassiterite, wolframite and topaz. Common textures of the ilmenite grains include replacement by leaching, intergrowths and exsolutions. In addition interesting exsolutions involving monazite, xenotime and ilmenorutile were observed. Generally the *amang* from the Klang Valley has more ilmenite while that from the Kinta Valley has more monazite, xenotime, zircon, rutile and wolframite.

The ilmenite from the two valleys were analysed on the EPMA to show the variations of TiO_2 and FeO from the different localities. The TiO_2 content for ilmenite, on the average, is quite similar for the Kinta and Klang Valleys, 49.7875–65.4251% to 49.0360–65.6274% respectively. The results show that the *amang* from both valleys have TiO_2 ranging from 49.4118% to 65.5263%.