

Some characteristics of heavy detrital mineral grains from Peninsular Malaysia

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Over a hundred samples of alluvial tin concentrates taken from various tin-fields of Peninsular Malaysia have been examined, and the results of the observations are hereby presented.

In terms of mineralogical associations, concentrates from known pegmatitic areas show an abundance of columbite-tantalite, pyrometasomatic concentrates with magnetite, and the hydrothermal cassiterites with a variety of minerals from sulphides to oxides. The forms and shapes of individual mineral grains tend to show variation and they are also related to the types of tin deposit. Cassiterite in particular shows a variety of forms. In addition to the common tetragonal form, pegmatitic cassiterite from Semiling and Bakri has peculiar 'squat bipyramidal' and 'elongated wedge-terminated' shapes, whereas those from the east coast have 'wood tin' forms.

The characteristics of the heavy detrital minerals are useful guides that could be used to characterise the various tin-fields of Peninsular Malaysia, in view of the difficulty in obtaining fresh primary ore samples due to the tropical weathering conditions.
