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## **ELECTRON-MICROPROBE AND MICROSCOPIC STUDIES OF GOLD AND ASSOCIATED SULPHIDES AND OXIDES FROM MALAYSIA -IMPLICATIONS FOR PROCESS FLOWCHART DESIGNS**

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In general, precious metals, sulphides and oxides associated with economic mineral deposits in Malaysia may occur together as simple mineral grains or as extremely complex interlocking assemblages. The identity, size, shape, relative amounts and textural relationship of these mineral grains determine the design of the mineral processing flowsheet for extraction of the various metals. Because many of the minerals that occur naturally in Malaysia are extremely fine-grained, a Cambridge Mark V electron-microprobe coupled with a reflected light ore microscope are essential in determining ubiquitously the above parameters. In particular, the textures, optical and chemical identity of various minerals from a number of economic prospects are examined together with designs of flowcharts for their extraction.