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**POTENTIAL ALKALI-SILICA REACTION IN AGGREGATE
OF DEFORMED GRANITE**

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ABSTRACT

Granite is the most important source of construction aggregate in Peninsular Malaysia and is widely used in concrete. Granite aggregate is generally considered as not alkali-silica reactive. However, deformation by faulting has generated a diverse variety of deformed granites that may contain deleterious minerals. Petrographic examination and

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mortar-bar test were carried out to assess potential alkali-silica reactivity. Strained quartz and microcrystalline quartz are the main potentially deleterious mineral in deformed granites. The mortar-bar test recorded marginally deleterious to deleterious expansions. The expansion values can be related to the total strained and microcrystalline contents. Deformed granites with over 12% of total strained and microcrystalline quartz is expected to cause marginal to deleterious expansion and this should be verified by mortar bar test. The deformed granites generally will not pose serious problems in the production of concrete aggregates as they constitute only a small proportion of the extracted rocks.