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FIELD EVIDENCE OF MAGMA MIXING IN PLUTONIC ROCK FROM THE BENOM COMPLEX, CENTRAL BELT OF PENINSULAR MALAYSIA

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ABSTRACT: The alkalic series of the Benom Complex, Pahang, consists of monzonite, syenite and gabbroic rock. The contact between monzonite and gabbroic rock suggest that both magmas are mixed. Evidence of the mixing can be seen at the new roadcut outcrop along the Benta township by-pass such as dispersion of K-feldspar from monzonite in the gabbroic rock. The end stage of this dispersion is the free swimming of K-feldspar individual crystals in the gabbroic material. This structure is interpreted as the result of mechanical transfer during the mafic-felsic magma interaction and mixing event. All these features suggest an origin for the alkalic intermediate rocks of the Benom Complex involving a magma mixing process.