

pyroxene phases (models II and III). Thus, during fractional melting or crystallization of a basaltic composition at upper mantle (model I) or lower crustal (models II and III) pressures, the mass ratio of residual phases to andesitic magma produced is approximately unity. In contrast, in models involving fractional crystallization of low pressure phases (plagioclase, pyroxene and olivine) from a basalt, the ratio of crystalline material to magma would be two or more, even under idealized conditions. There is no room problem in either model, since in both cases the residuum may sink into the mantle, and would rarely be available for sampling by geological processes.

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