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Cover: In *Maurice et al.* [DOI: 10.1002/2016JE005250], this image represents snapshots of the compositional field at four different times during the solidification of a magma ocean for the case featuring the following set of parameters: fractional crystallization, $Ra=10^{10}$, B=1.8 and $t_{M0}=10$ Myr. The organization of the picture is the same as the one in figure 2. The parametrized liquid magma ocean is represented overlying the solidified cumulates, which start convecting as early as 4 Myr after the beginning of the magma ocean's solidification. The high density contrast, low reference viscosity and the long solidification duration ensure a prolonged convective mixing during the crystallization which delivers a largely homogenized post-magma ocean mantle. See pp. 577–598.

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*This article is part of a Special Section—The Mars Science Laboratory Rover Mission (Curiosity) at The Kimberley, Gale Crater, Mars