

HIGHLIGHTS AND BREAKTHROUGHS

Stable and metastable silicate liquid immiscibility in ferrobasalts

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Abstract: The onset of immiscibility in ferrobasaltic systems has been the subject of much research recently. The compositional space of the two-liquid field and the maximum temperature of the binodal surface have been investigated experimentally, but results from static and centrifuge experiments are controversial. In the article by Hou and Veksler (2015, May-June issue) entitled “Experimental confirmation of high-temperature silicate liquid immiscibility in multicomponent ferrobasaltic systems,” the authors present experimental evidence for immiscibility between silica- and iron-rich melts at 1150–1200 °C, which are significantly higher to previous studies (ca. 1000–1025 °C). These results have important implications for potential large-scale differentiation of magmas by liquid unmixing and for the formation of both Fe-Ti-P-rich melts and rhyolites. **Keywords:** Experimental petrology, binodal, basalt, rhyolite