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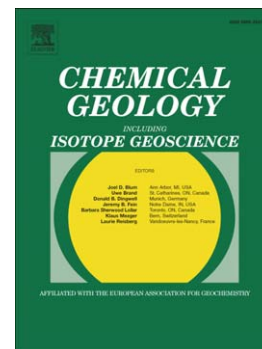
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SIMS chlorine isotope analyses in melt inclusions from arc settings

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Abstract

The relative contribution of volatiles from altered oceanic crust, serpentinized mantle, and subducted sediments on the composition of primary arc magmas is poorly constrained. We measured the chlorine stable isotope composition in olivine-hosted melt inclusions in order to provide a first order constraint on the $\delta^{37}\text{Cl}$ values of primary magmas, since melt inclusions are not or only little affected by near surface processes. Chlorine isotope analyses were obtained with a CAMECA IMS 1280-HR at the University of Lausanne. A series of six Cl-bearing glass standards with $\delta^{37}\text{Cl}$ values of -1.1 to +1.7‰, SiO_2 between 50 and 76 wt% and Cl concentration between 0.15 and 3.25 wt% were used for

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