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## Purification of Mg from extremely low-Mg felsic rocks for

## isotopic ratio determination by MC-ICP-MS

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## **Supplementary materials**

Fig. S1

Fig. S1 Elution curves of Mg for low-Mg geological reference materials in  $1.5M \text{ HNO}_3$  (a) and  $1M \text{ HNO}_3$  (b). The volume of eluents that recovers 50% Mg (estimated by assuming that recovered Mg of each cut is equally distributed in its volume range) varies with different cation-resin ratios q in  $1.5M \text{ HNO}_3$  (c) and  $1M \text{ HNO}_3$  (d). Notably, GSP-2 with a high loading amount ~ $35\mu$ g Mg is plotted off the major trend (d), and the reason remains not well understood.

