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**Tellurium stable isotope measurements by double spike MC-ICPMS**

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The siderophile volatile elements S, Se, and Te are among the most strongly depleted elements in the silicate Earth. They are generally thought to predominantly derive from the late accretion of broadly chondritic material to the Earth's mantle after the cessation of core formation. To test this hypothesis and to shed new light on the nature and origin of the late-accreted material, we will investigate the Te stable isotopic compositions of chondrites and mantle-derived rocks. Tellurium stable isotope variations may arise as a result of nebular processes, potentially leading to distinct isotopic compositions among chondrites, but may also be produced by isotope fractionation during core formation. Thus, Te stable isotopes represent a powerful tool to distinguish between the different chondrite groups as the potential source of the late veneer, and to investigate the importance of late accretion and core formation for establishing the Te abundance of Earth's mantle. We are currently developing a  $^{123}\text{Te}$ - $^{125}\text{Te}$  double spike method for the precise measurements of Te isotope variations by multi-collector ICPMS.

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