Deciphering the formation of the Earth and Moon using the Highly Siderophile Elements (HSE)

The highly siderophile elements (HSE) are unique, geochemically, owing to their strong affinity for iron, and to a lesser extent sulfur, resulting in their concentration in metal and sulfide phases during the formation of planetary bodies. In this talk, I will discuss the results of experiments to constrain the behaviour of the HSE during the segregation of core-forming metal, as well as to assess the effect of residual sulfide in fractionating the HSE during the formation of planetary basalts. Results have implications for the late accretion history of the Earth-Moon system.