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Upper mantle peridotite xenolith present in basalt from the Yangyuan locale, China. Two stages of Earth's accretional history are recorded in mantle peridotites like this one. The moderately siderophile elements are present in abundances consistent with high pressure and temperature partitioning between metal and silicate, such as may have occurred at the bases of magma oceans over the course of the final 10-20% of Earth's accretion. The highly siderophile elements are in chondritic relative abundance and were likely emplaced in the mantle by a final approximately 0.5% of Earth's accretion.

Photo credit: Richard J. Walker