

The Earth's Lower Mantle and Core

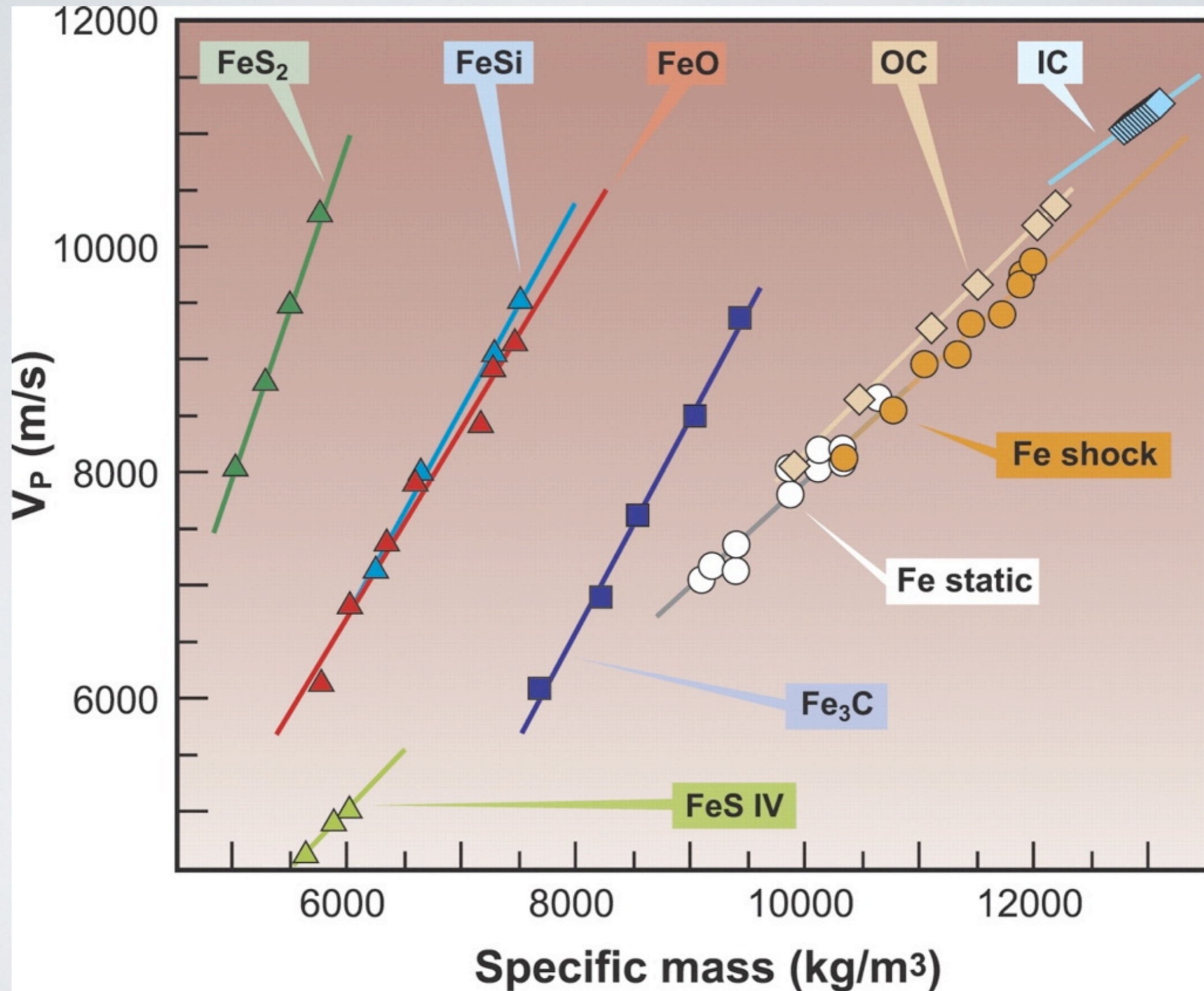


FIGURE 3 Compressional (P-wave) wave velocities in Fe, FeS, FeO, FeS₂, FeSi and Fe₃C as a function of specific mass. Seismic velocity profiles from the radial PREM model for the inner (IC) and outer (OC) core, as well as shock measurements, are also reported (see Badro et al. 2007 and references therein). Linear combinations of these data and fits to geophysical profiles then allow to propose possible core compositions.