



FIGURE 1 Simplified cross-section of the Earth. The main constituent minerals in the mantle change from olivine + pyroxenes + garnet (or Al-rich spinel) in the upper mantle, to spinels + majorite in the transition zone, to perovskite + ferropericlase in the lower mantle, and to post-perovskite + ferropericlase in the D" layer. The boundaries between the layers are characterized by seismic-wave discontinuities.