



**FIGURE 4** Phase diagram of MgSiO<sub>3</sub> based on the MgO pressure scale. Open symbols, perovskite; solid symbols, post-perovskite; half-filled symbols, coexistence of perovskite and post-perovskite. The post-perovskite phase transition occurs at 119 GPa and 2500 K, matching the general depth range of the D'' discontinuity (2550 to 2700 km depth).