



The variation in sound velocity with depth for various key mantle minerals: olivine (Ol), diopside (Cpx), enstatite (Opx), garnet (Gt), majorite-garnet solid solution (Mj<sub>50</sub>), wadsleyite (Wd), ringwoodite (Rw), magnesiowüstite (Mw), Mg-silicate perovskite (Pv). Increases in temperature for an adiabatic gradient are taken into account. The reference model PREM (Dziewonski and Anderson 1981) is shown for reference. The length of an adiabat indicates approximately the maximum pressure stability of any given phase.