

FIGURE S1. Covariance ellipses showing the relationships between the C23 Fe₂S EoS parameters fit in the current study (Table 1).fit in the current study (Table 1).

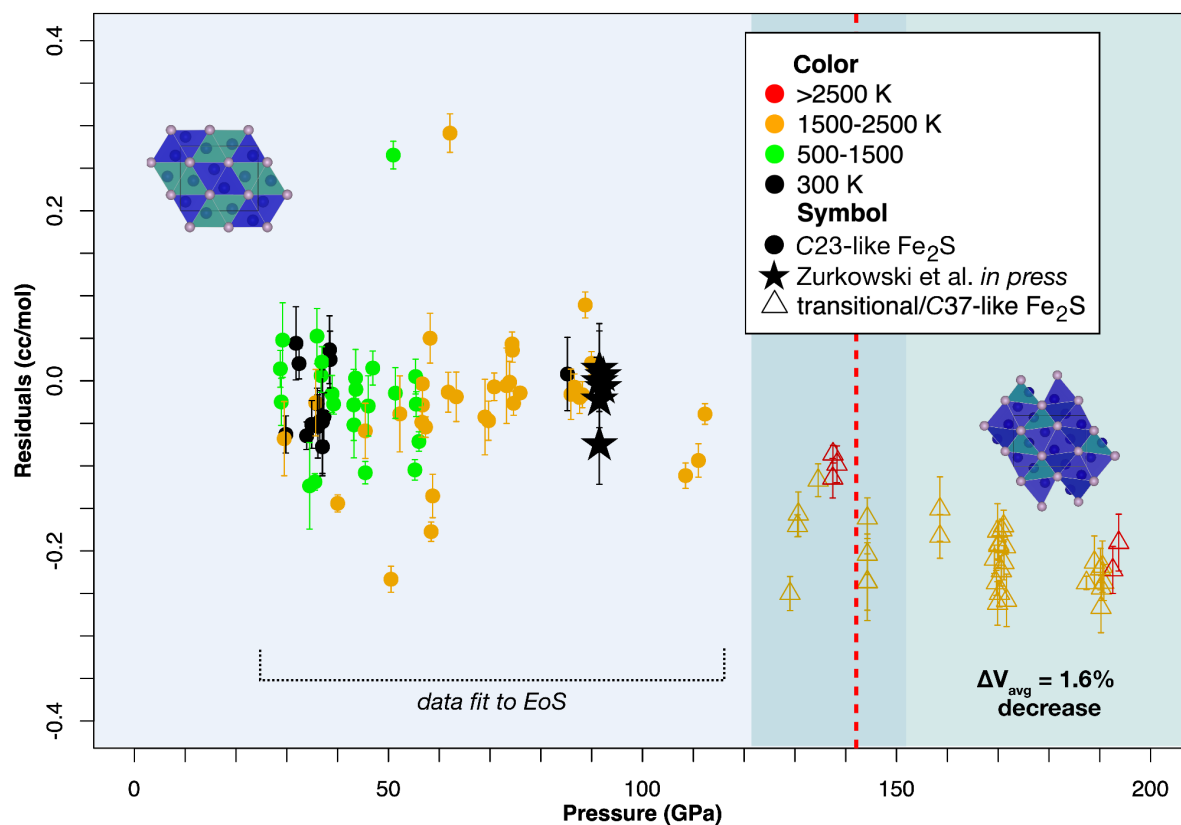


FIGURE S2. Volume residuals to the EoS fitted to C23 Fe_2S (<120 GPa, light blue shaded region, filled circles). The plotted open triangles represent the difference in volume calculated from this EoS versus measured volume for the Fe_2S data in the transitional (120–150 GPa, blue-green shading) and C37 Fe_2S (>150 GPa, light green shading) pressure range. A 1.6% decrease in volume is observed for the C37 Fe_2S (>150 GPa) data. The red dashed vertical line was determined in Figure 4 to be the C23–C37 cut off.