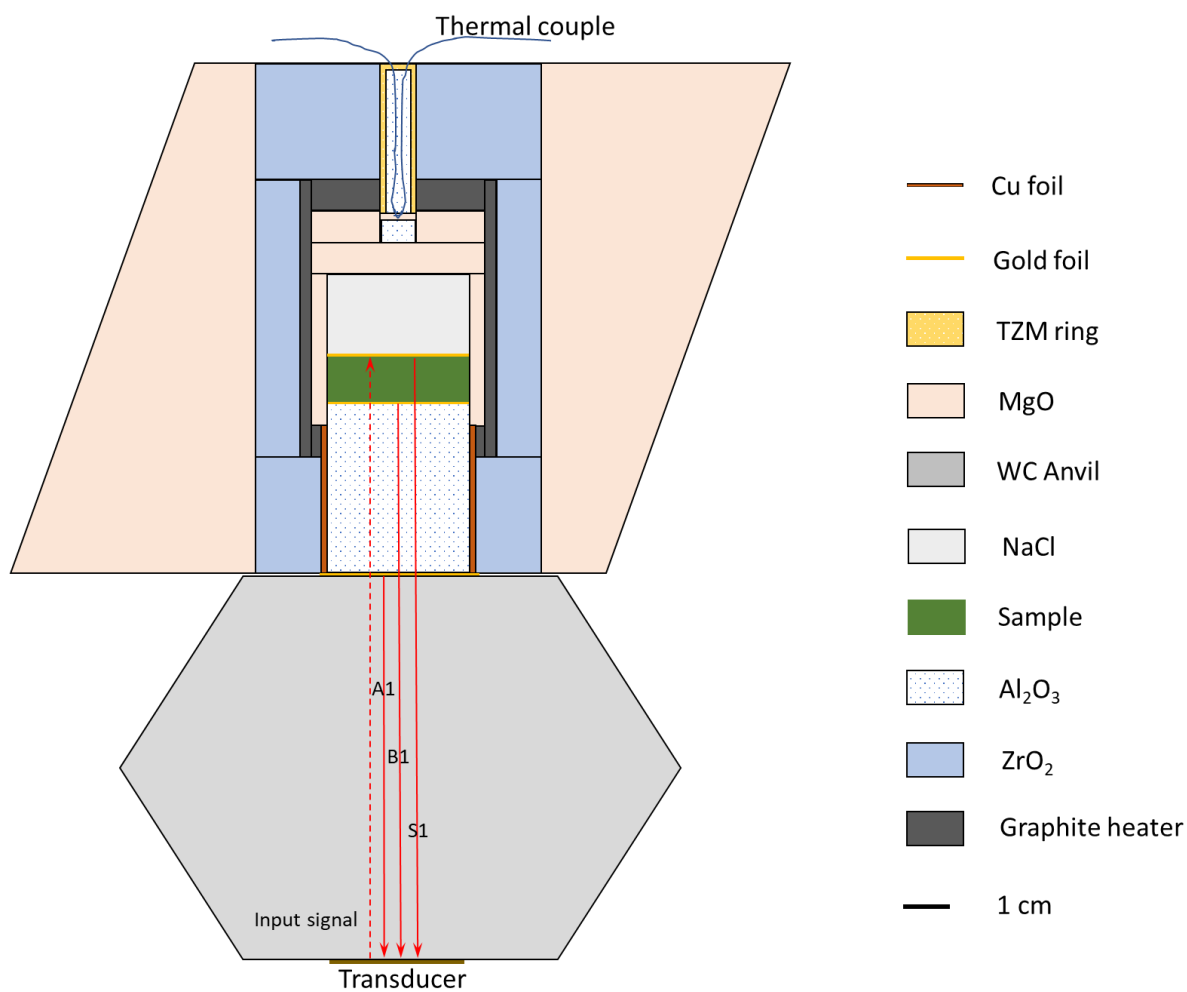


## Supplemental Material

**FIGURE S1.** Cross section of the 14/8 cell assembly for high pressure ultrasonic measurements in this study (WC anvil is not in scale).



**Figure S2.** Selected analyzed X-ray diffraction pattern using Le Bail method. Tickmarks below the spectrum are the calculated diffraction peak positions for Opx (*Pbca*) or HPCpx (*C2/c*) and NaCl (pressure medium). a) 0 GPa room temperature: Opx (*Pbca*) + NaCl; b) 13.5 GPa 673 K: Opx (*Pbca*) + NaCl; c) 11.9 GPa 873 K: HPCpx (*C2/c*) + NaCl.

