

Study of interactions of N–C–H–O volatiles with Fe rich silicate melts at high pressures and fixed hydrogen fugacity

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It is suggested original construction of the double Pt capsule with the studied specimen in the upper cell and solid oxygen buffer together with H₂O in the lower cell for regulate of the partial hydrogen pressure at the research of volatiles solubility in Fe rich silicate melts at high pressures. With use of the suggested double Pt capsule it is conducted an experiment with ferrobasaltic melt at 1.5 GPa, 1400°C and fH_2 , defined by buffer Fe–FeO + 10 mass % H₂O, which allowed to estimate peculiarities of the suggested method of fH_2 regulating in studied silicate systems.

Key words: experiment, volatile solubility, silicate melt, oxygen and hydrogen fugacity

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