

SUPPLEMENTARY INFORMATION

Thermodynamic calculations

For comparison between the experimental results and thermodynamic predictions, phase diagrams were calculated using the bulk MgO-CO₂-H₂O composition of our starting material.

In the modelling a gridded minimization strategy and linear programming for optimization (Connolly 2005) was applied with Perple_X. The thermodynamic dataset from Holland and Powell (1998) and Holland and Powell (2011) were used.