Deep carbon cycle constrained by carbonate solubility

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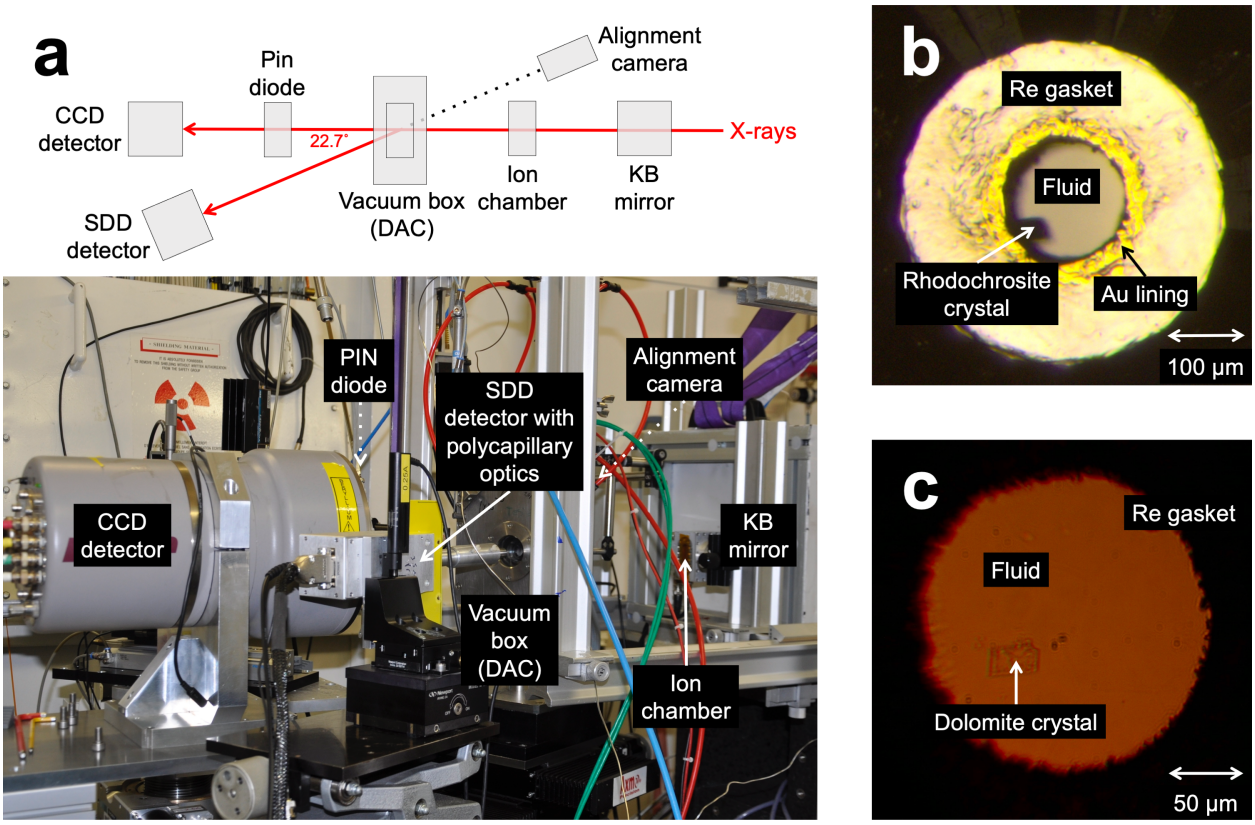
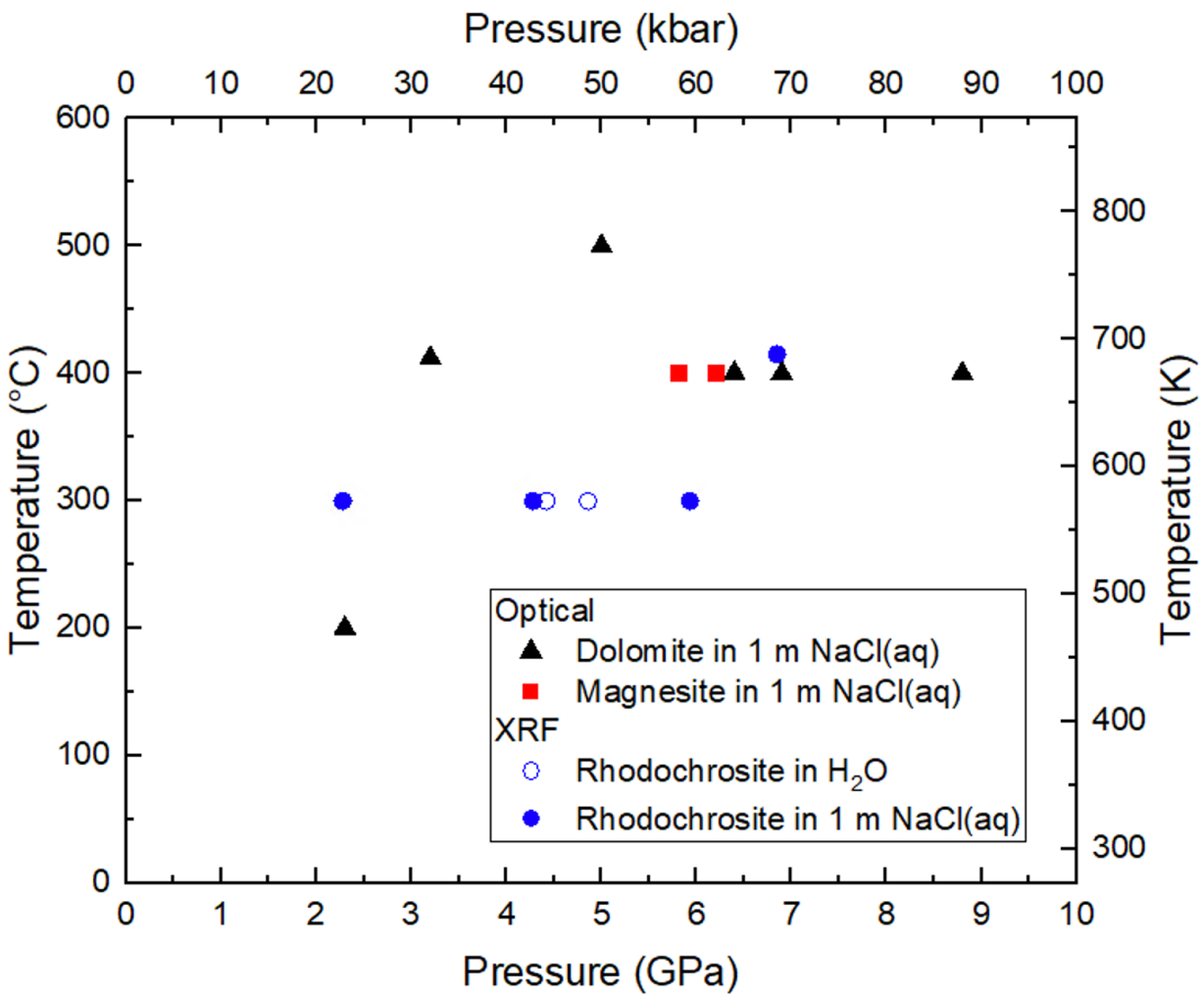
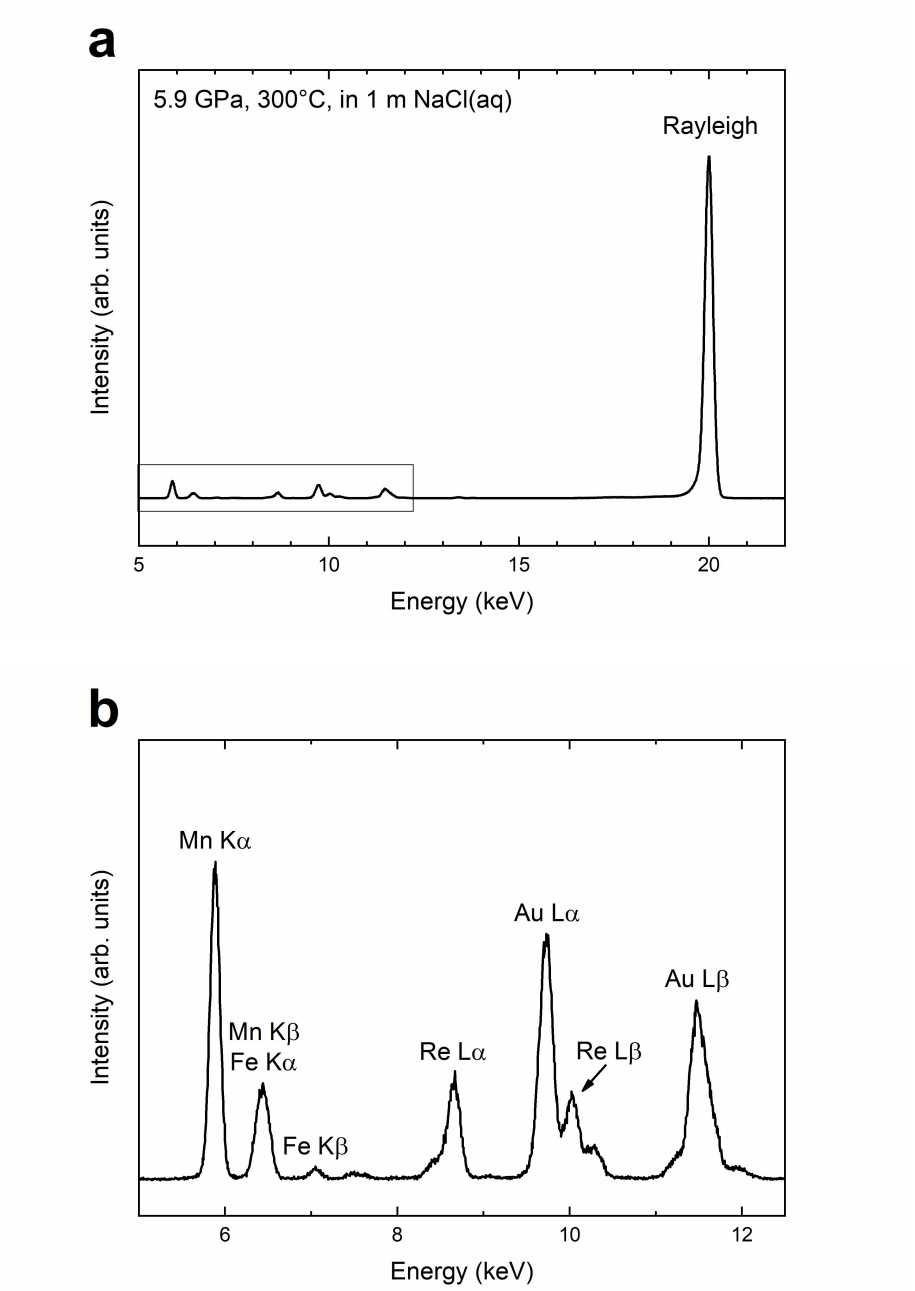
Supplementary information



Supplementary Figure 1. a) Schematic diagram and image of the experimental setup at the ID27 beamline of ESRF. b) A DAC loaded for synchrotron XRF spectroscopy experiments. c) A DAC loaded for optical solubility experiments.



Supplementary Figure 2. Pressure and temperature conditions of the optical solubility and synchrotron XRF spectroscopy measurements.



Supplementary Figure 3. An example of a raw synchrotron XRF spectrum of the fluid in equilibrium with rhodochrosite. The area defined by the rectangle in a) is enlarged in b). The Mn and Fe signal arises from the dissolution of rhodochrosite, while the Re and Au peaks originate from the dissolution of the Re gasket and its Au lining.