

CHEMPHYSICHEM

Supporting Information

Precipitation and Crystallization Kinetics in Silica Gardens

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Supporting Information

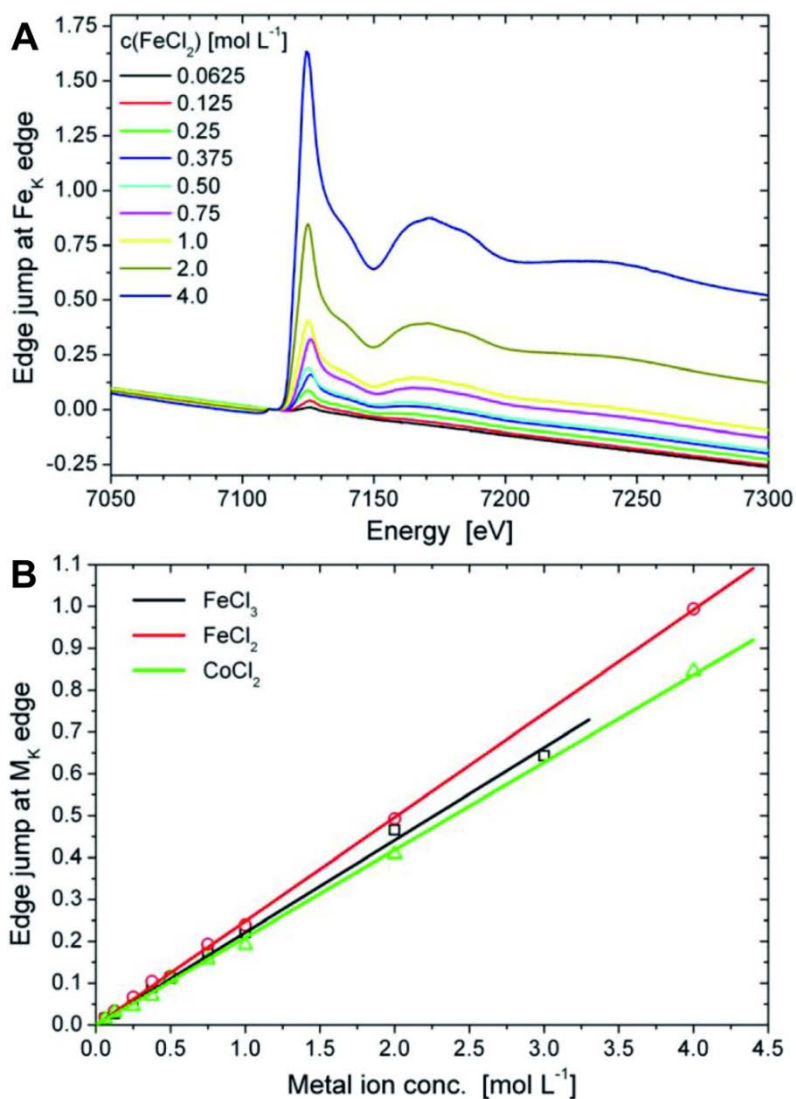


Figure S1. Metal ion concentration measurements by X-ray absorption spectroscopy (XAS). (A) Fe_K absorption edge measured for aqueous solutions of FeCl₂, at different concentrations as indicated. (B) Linear correlation between the height of the edge jump and corresponding metal ion concentrations for solutions of FeCl₃ (black), FeCl₂ (red) and CoCl₂ (green).

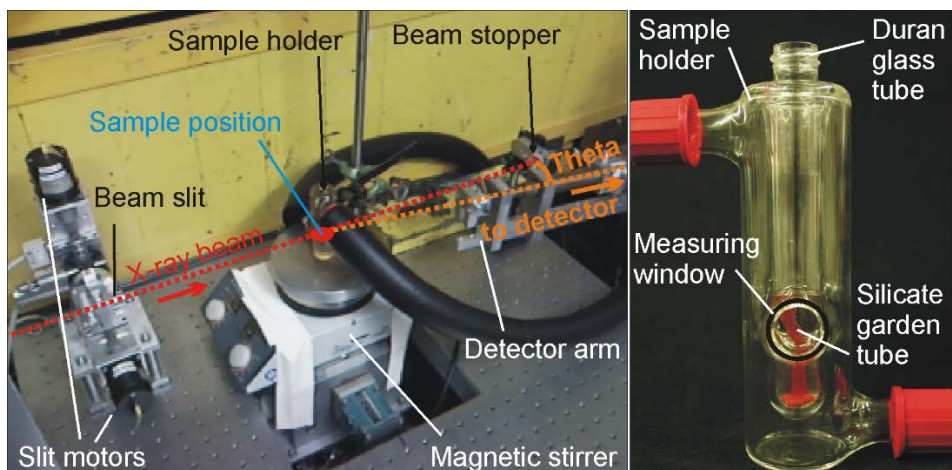


Figure S2. Experimental setup at beamline F3 of HASYLAB (DESY, Hamburg) used for EDXRD measurements on macroscopic open-tube silica gardens.

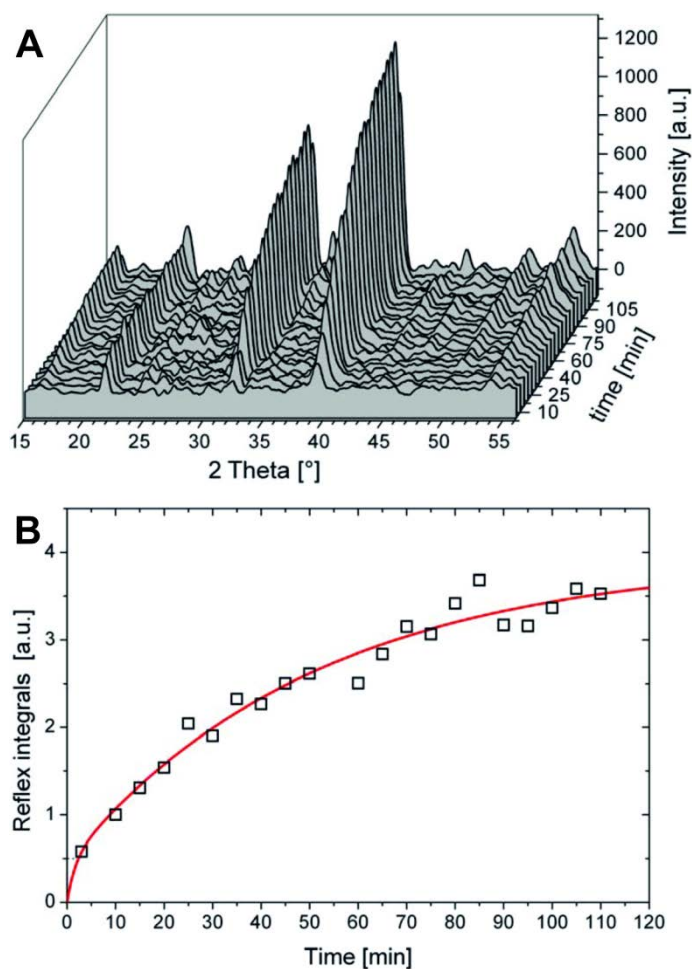


Figure S3. Results of EDXRD experiments on macroscopic silica garden tubes prepared with CoCl_2 . (A) 3D representation of diffraction patterns measured at different times, showing progressive crystallization of $\text{Co}_2(\text{OH})_3\text{Cl}$. (B) Plot of the integral intensity of crystalline reflections occurring in (A) as a function of time. The red line represents a fit of the data according to the kinetic model described in the main text (Figure 5).

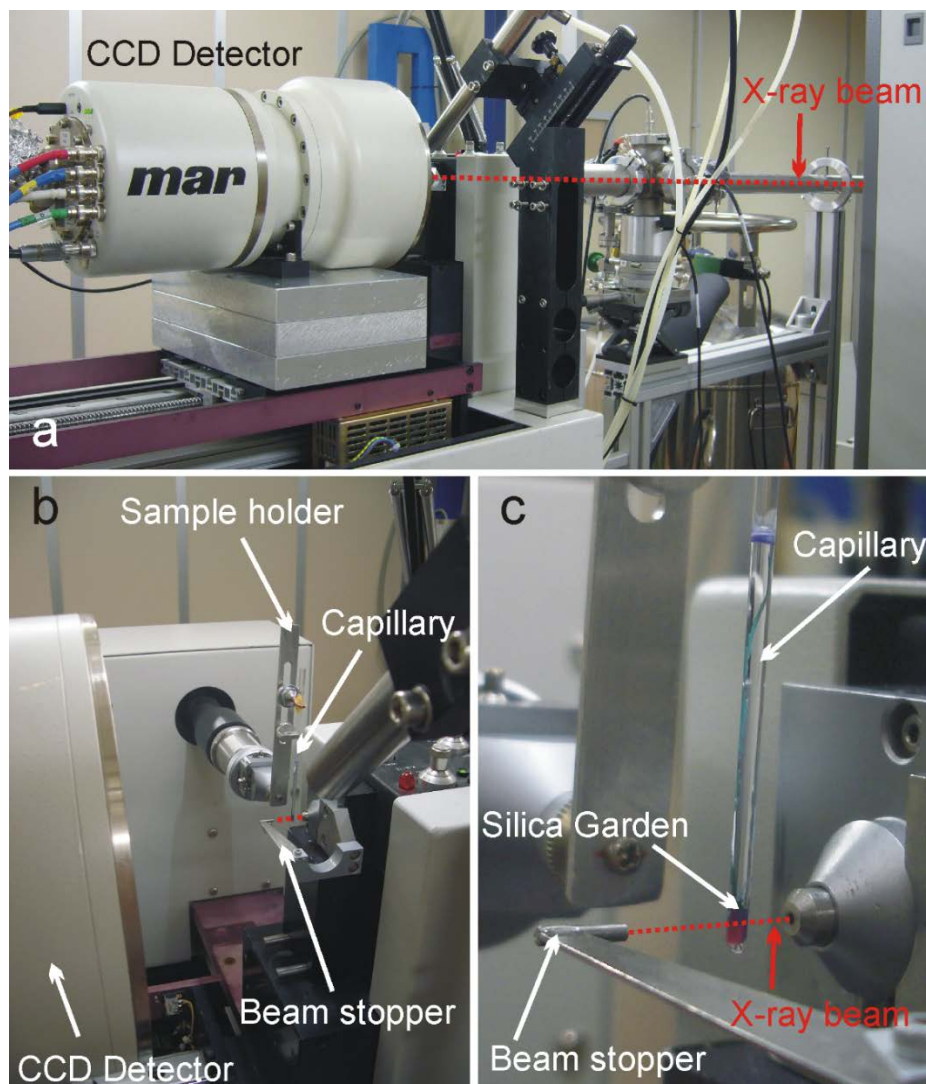


Figure S4. Experimental setup at beamline XRD1 of ELETTRA (Trieste) used for diffraction measurements on miniaturized silica garden tubes. (A) Overview showing the incoming X-ray beam and the used CCD detector. (B) Close-up view on the space between sample and detector. (C) Zoom into the sample area, showing a glass capillary containing a miniaturized silica garden prepared from a CoCl_2 crystal.