

Supplementary Materials for Publication

Retention of Phosphorus onto Calcite and Dolomite: Speciation and Modeling

Nan Xu^{1}, Ming Chen¹, Kairong Zhou¹, Yunlong Wang¹, Hongwei Yin¹, Zhigang Chen^{1*}*

¹ Jiangsu Key Laboratory of Environmental Functional Materials, School of Chemistry
Biology and Material Engineering, Suzhou University of Science and Technology, Suzhou
215009, China

Corresponding Author

*Phone: +86 512 68083175; Fax: +86 512 68083175.

E-mail: nanxu@mail.usts.edu.cn; czg@mail.usts.edu.cn

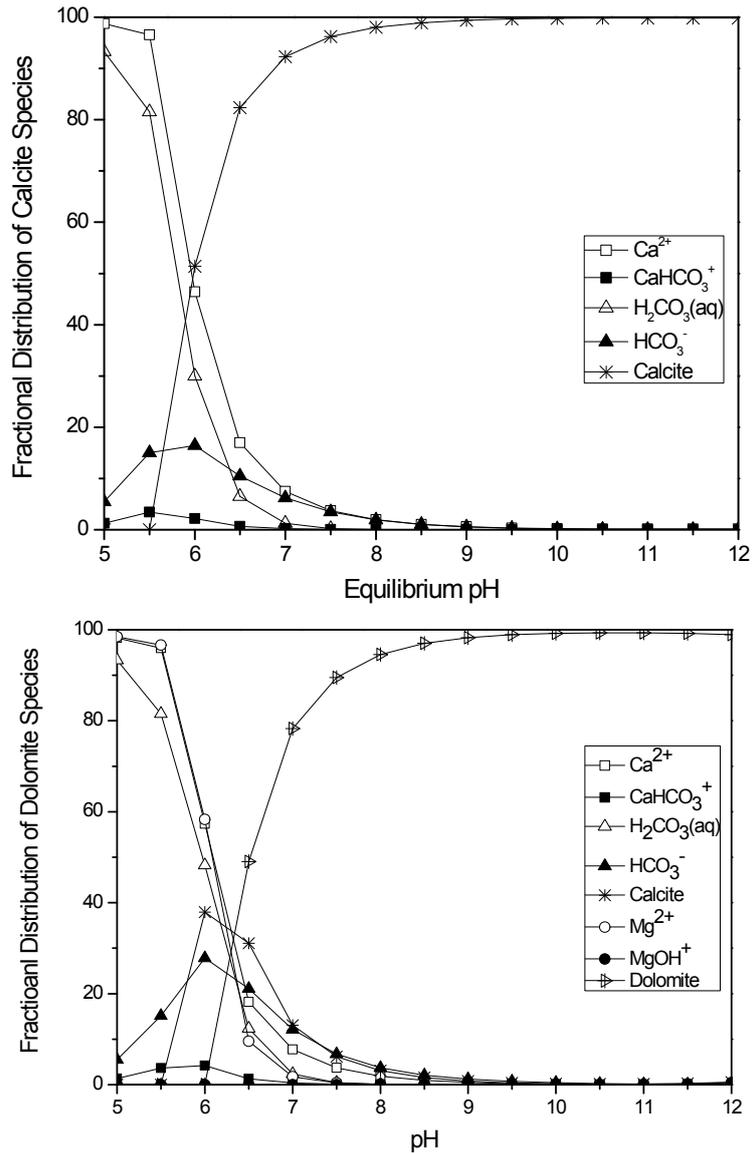


Figure A.1. Percentage distributions of 5 g/L carbonate minerals in aqueous solution as a function of pH (upper level: calcite; lower level: dolomite).

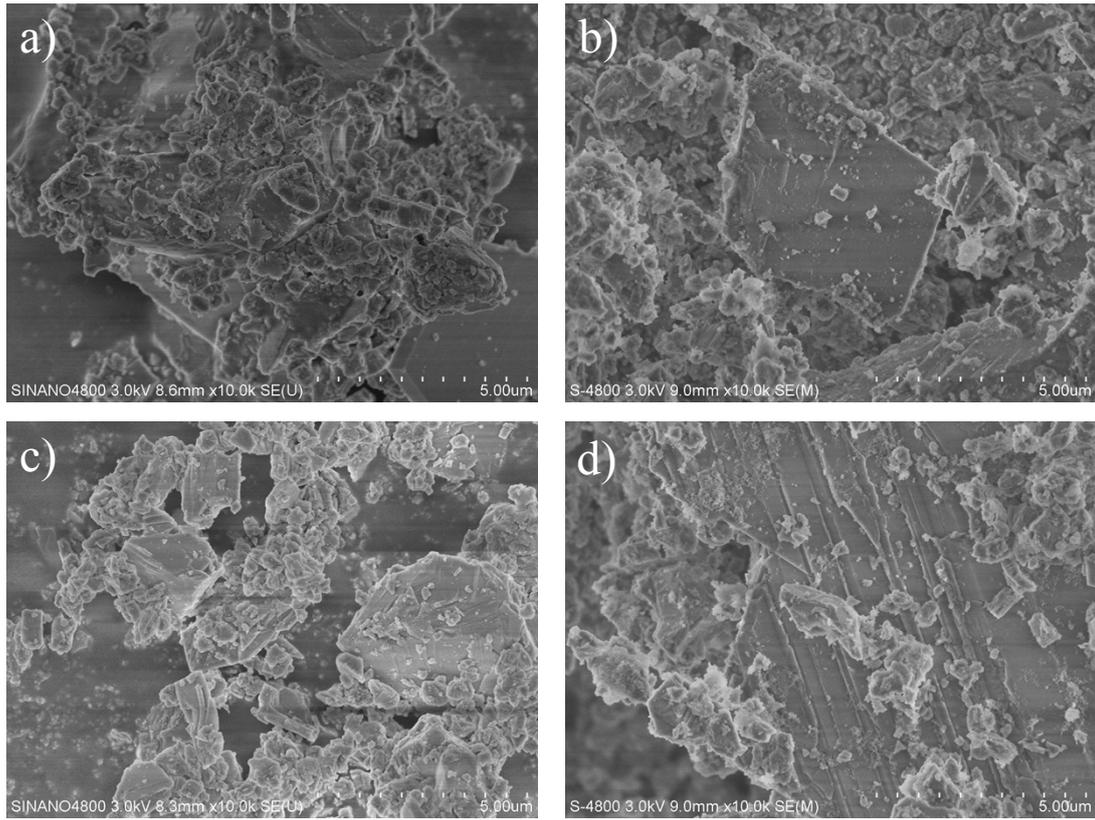


Figure A.2. SEM images of calcite (a) and phosphate retention on calcite (b); dolomite (c) and phosphate retention on dolomite (d).

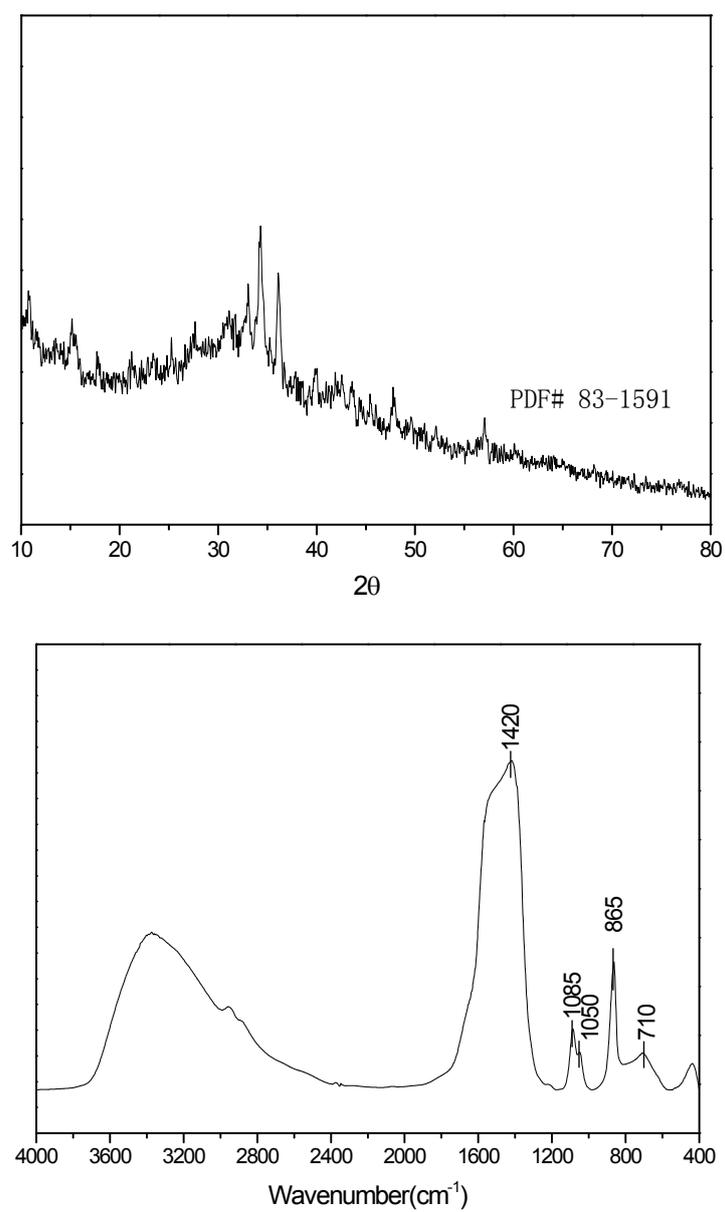


Figure A.3. XRD pattern (upper level) and FTIR spectrum (lower level) of the synthesized MgCO_3 .

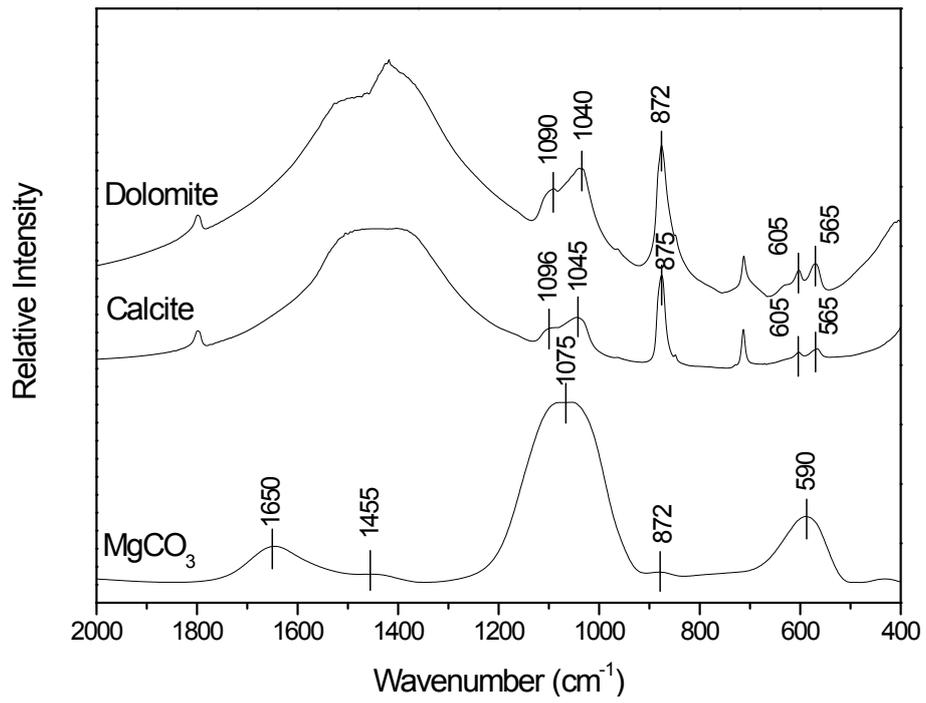


Figure A.4. FTIR spectra of phosphate retention onto different metal carbonates.

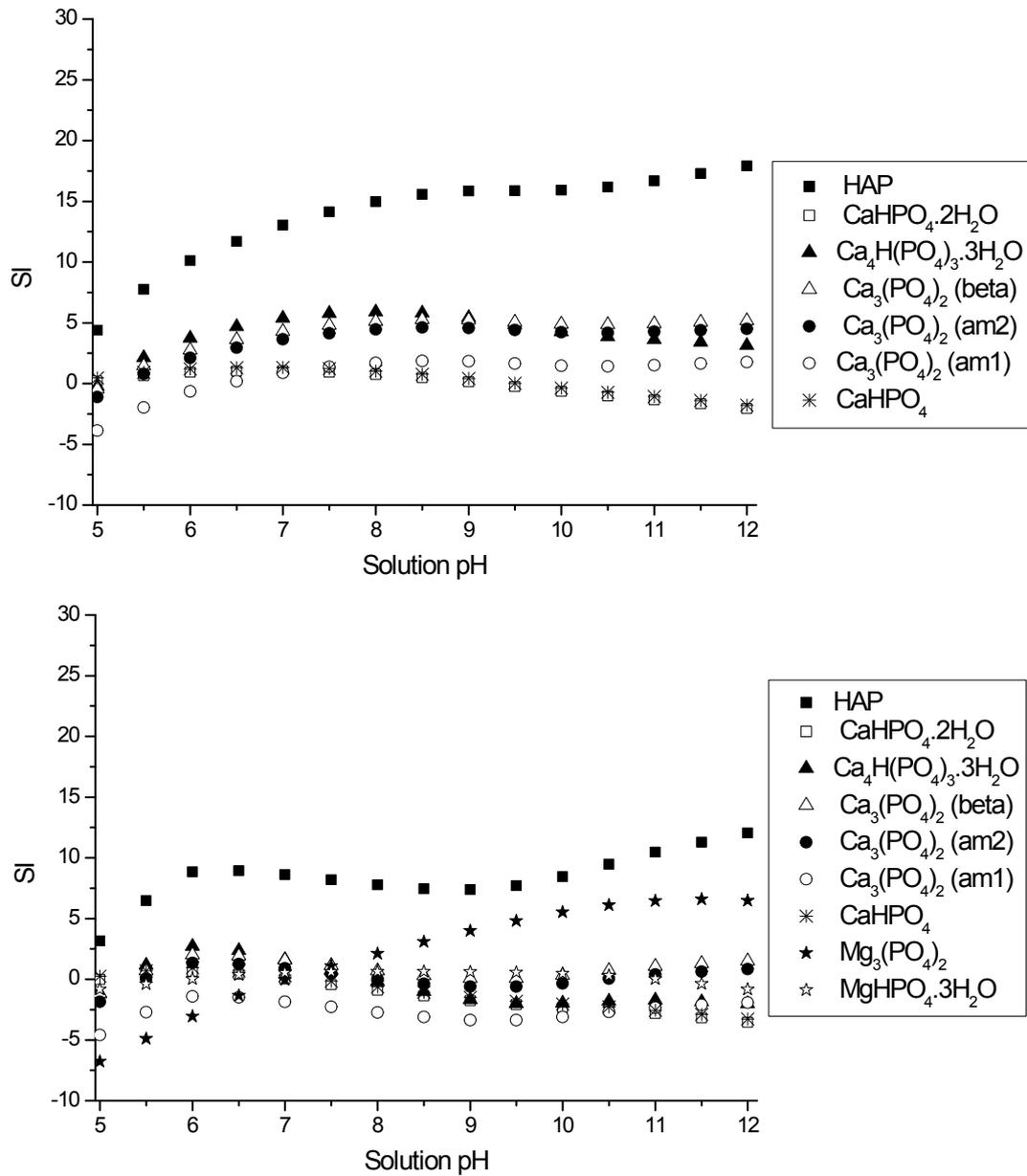


Figure A.5. Supersaturation indexes of various Ca-P and Mg-P phases as a function of solution pH (upper level: calcite system, lower level: dolomite system; P conc. = 200 mg/L).