

Crystallization of Calcium Carbonate under the Influences of Casein and Magnesium Ions

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Supporting Information

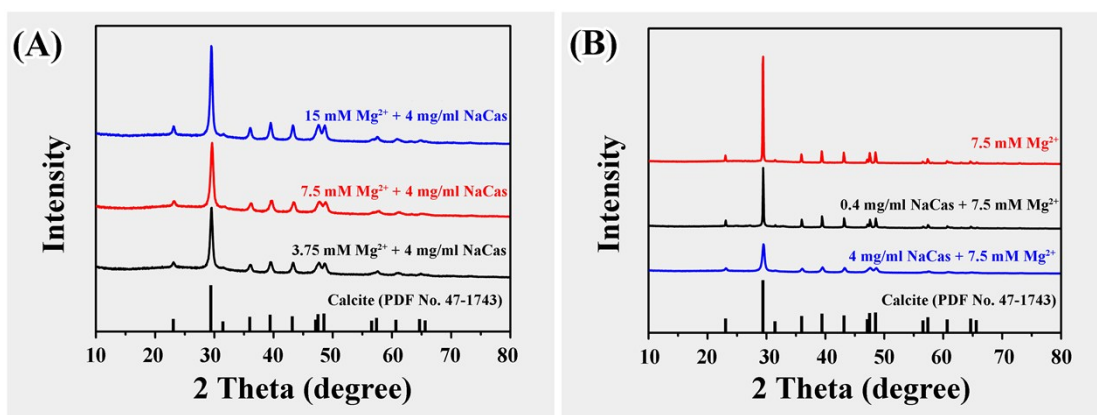


Fig. S1 XRD spectra of CaCO₃ crystals obtained in the presence of casein and magnesium ions. (A) The XRD spectra of CaCO₃ crystals obtained in the presence of NaCas (4 mg/ml) and various amount of magnesium ions. (B) The XRD spectra of CaCO₃ crystals obtained in the presence of Mg²⁺ ions (7.5 mM) and various amount of NaCas.

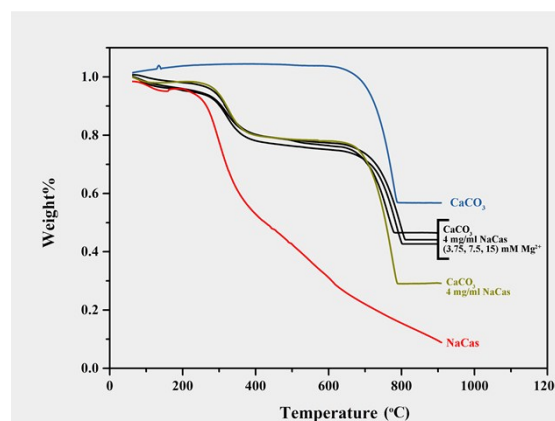


Fig. S2 TG curves of CaCO₃ minerals obtained in the presence of NaCas and magnesium.

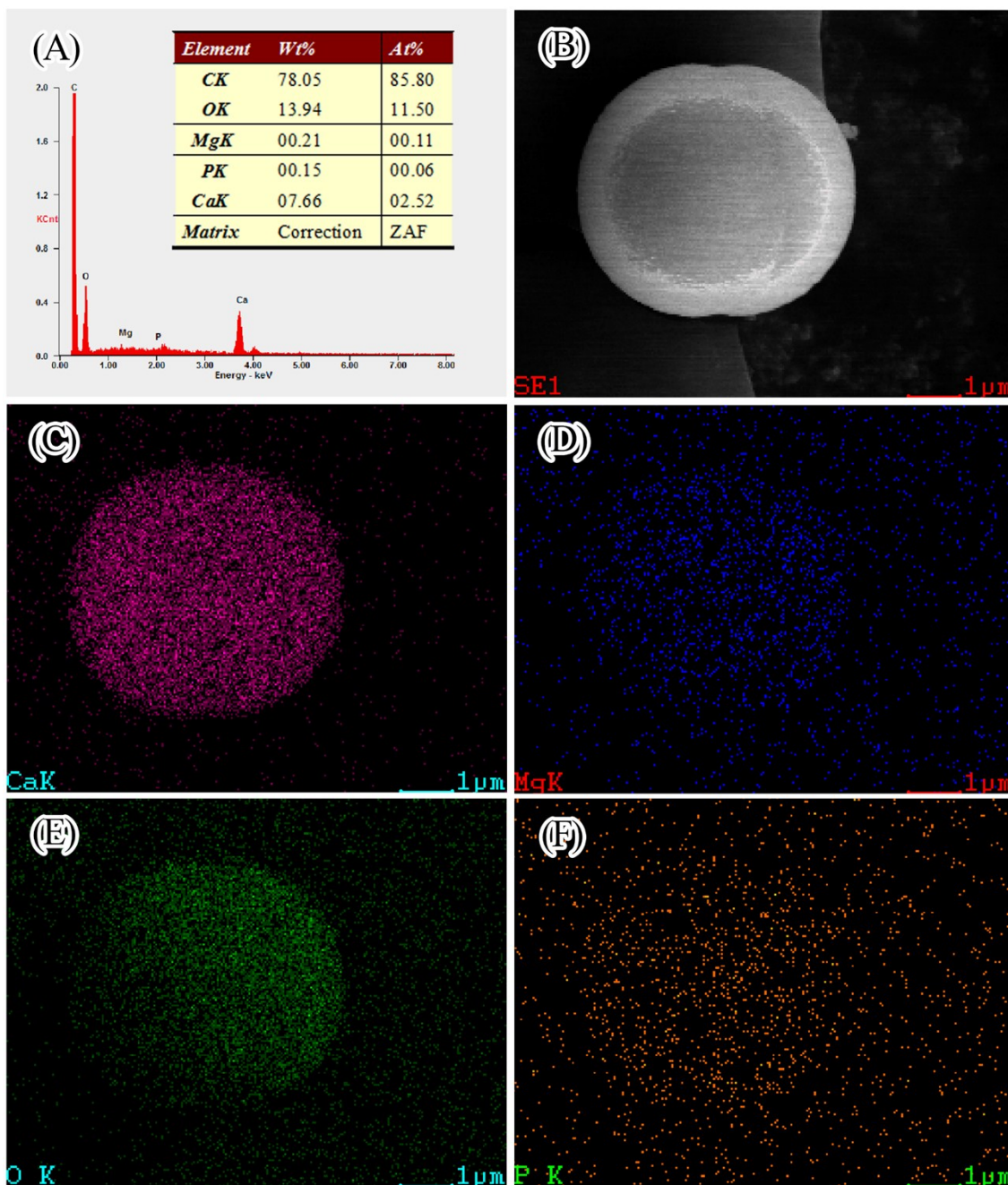


Fig. S3 EDS analysis of CaCO_3 mineralization in the presence of magnesium and casein. Panel (A), EDS spectrum and elementary composition (inset) of CaCO_3 particles formed under effects of casein and magnesium ions. Panels (B-F) show SEM image and elementary analysis of CaCO_3 particles formed under effects of casein and magnesium ions. Panel (B), SEM images; Panel (C), calcium analysis; Panel (D), magnesium analysis; Panel (E), oxygen analysis; Panel (F) phosphorus analysis.