

Supplementary Figures

Mechanochemical synthesis of zinc-doped hydroxyapatite for tunable micronutrient release

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Abstract

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Keywords: hydroxyapatite; mechanochemistry; micronutrient; zinc; dissolution

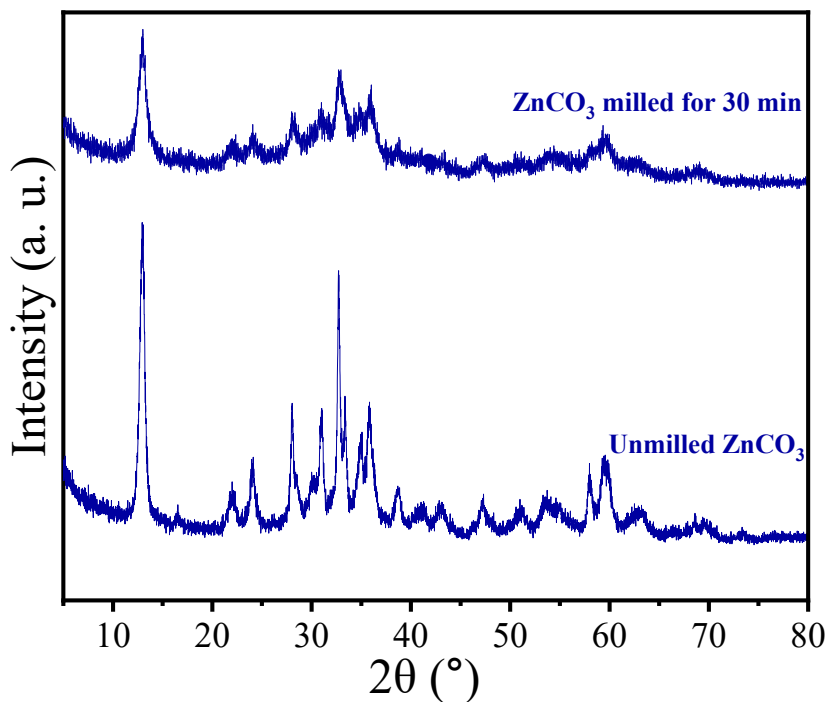


Figure 1S. XRD patterns for pure unmilled ZnCO_3 and ZnCO_3 after milling for 30 min.

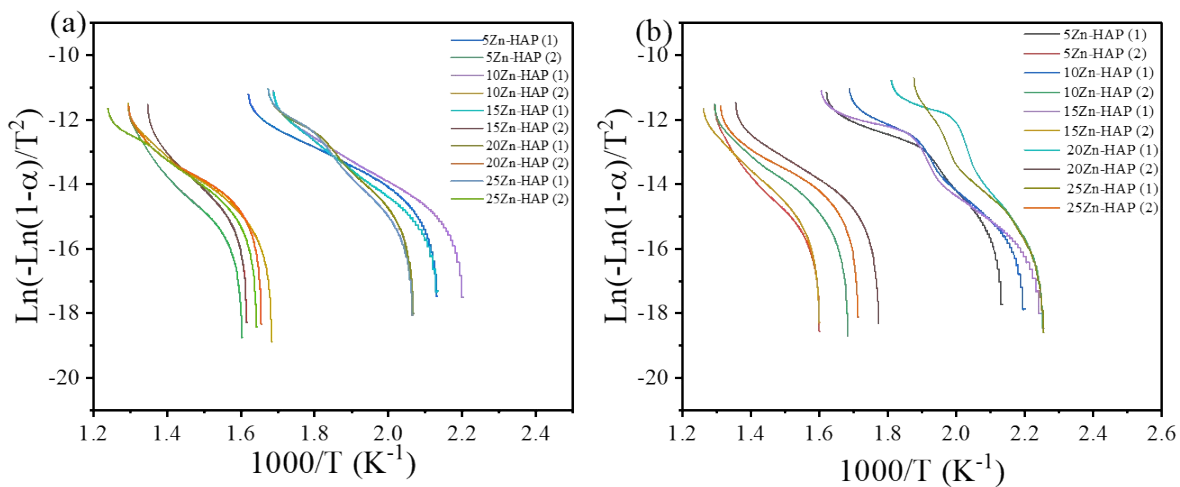


Figure 2S. The intermediate curves obtained from Coats – Redfern (CR) model; (a) (5-25)Zn-HAP mill and (b) (5-25)Zn-HAP mix; the number between brackets (1) and (2) indicate the temperature range; (30-350) °C and (350-500) °C, respectively.

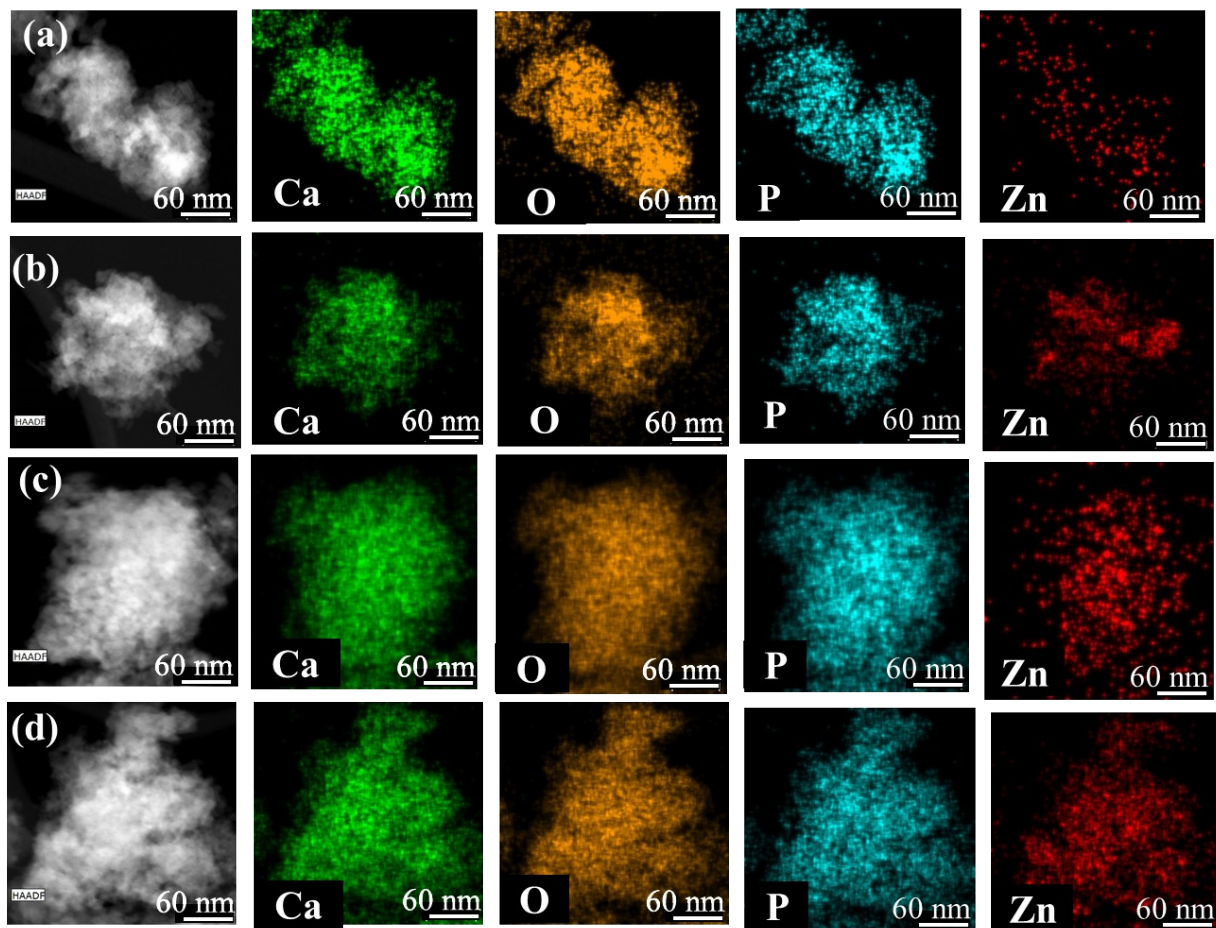


Figure 3S. (a) EDS elemental mapping (a) 5.0Zn-HAP (mill), (b) 25Zn-HAP (mill), (C) 5.0Zn-HAP (mix), and (d) 25Zn-HAP (mix).

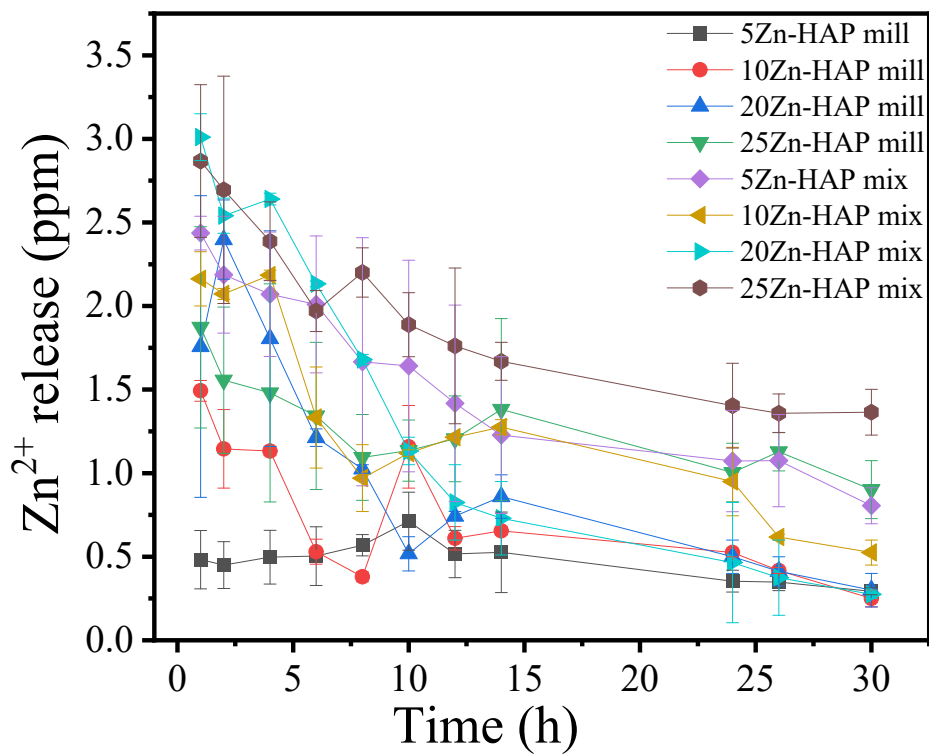


Figure 4S. Temporal pattern of Zn^{2+} ion release for 5, 10, 20, and 25Zn-HAP (mill) and for 5, 10, 20, and 25Zn-HAP (mix) samples. Error bars represent triplicate measurement.