

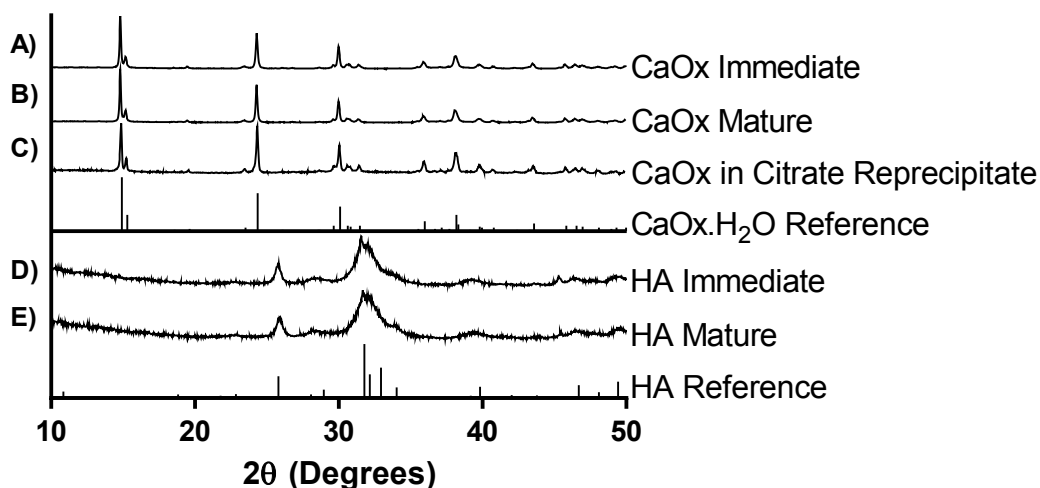
Hexametaphosphate as a Potential Therapy for the Dissolution and Prevention of Kidney Stones: Supplementary Information

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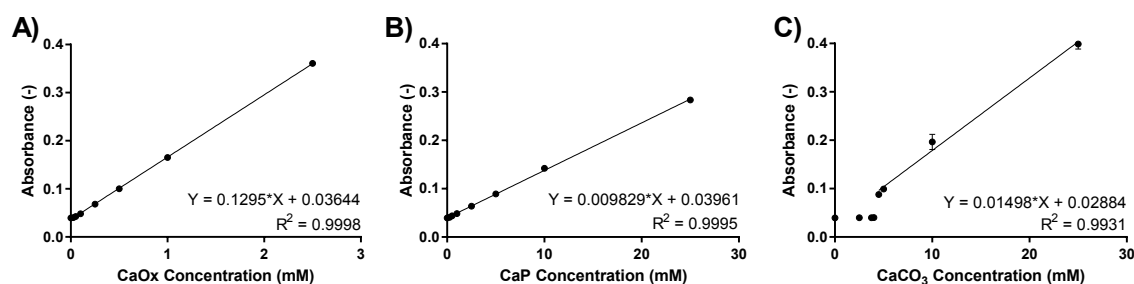
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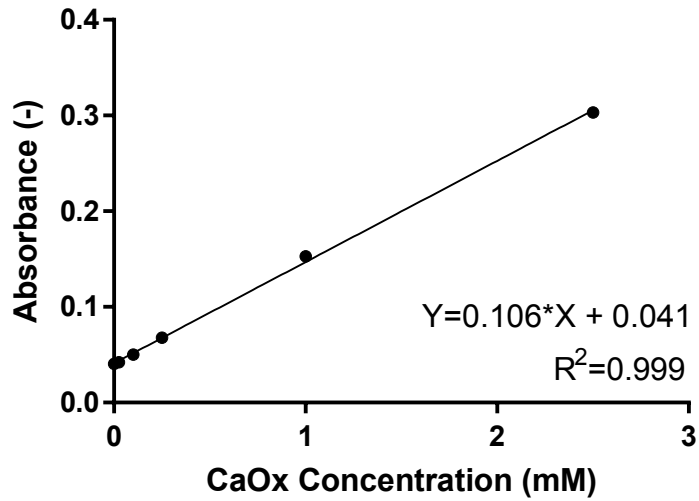
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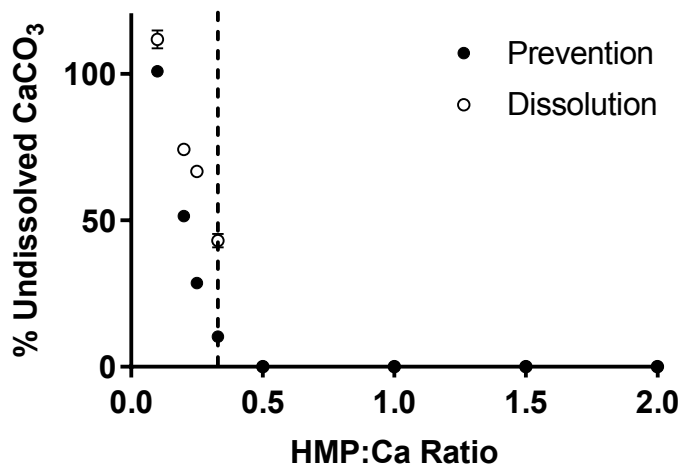
Supplementary Figure 1: X-ray diffraction patterns of calcium oxalate **A)** immediately after preparation, **B)** after maturation for 3 days, and **C)** after reprecipitation following treatment with citrate, confirming these species as the monohydrate. Patterns of precipitated calcium phosphate confirm the formation of hydroxyapatite **D)** immediately after precipitation and **E)** after 3 days of maturation. Reference patterns were obtained from the International Centre for Diffraction Data (ICDD); calcium oxalate monohydrate (PDF 00-020-0231) and hydroxyapatite (PDF 01-074-9761).



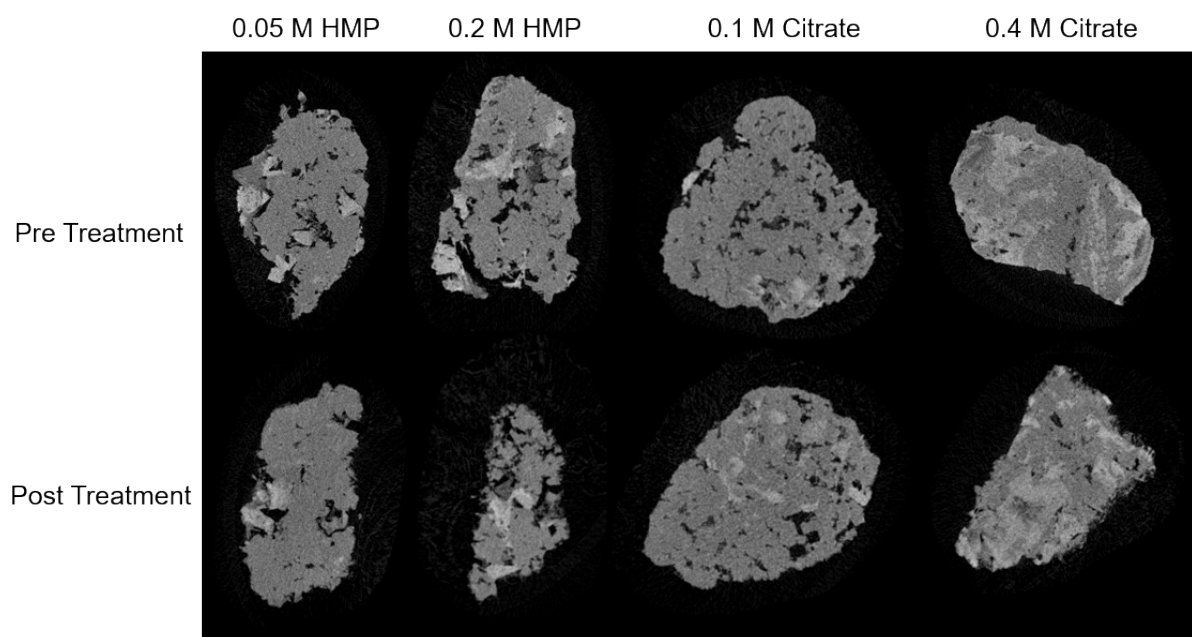
Supplementary Figure 2: Calibration curves of 600 nm light absorbance and concentration for **A)** calcium oxalate, **B)** calcium phosphate and **C)** calcium carbonate, formed in deionised water. Note that CaCO₃ is sparingly soluble in deionised water, thus concentrations below 4 mM give the same reading as deionised water. Figures show mean \pm SD ($n=3$) and a linear regression.



Supplementary Figure 3: Calibration curve of 600 nm light absorbance and concentration for calcium oxalate formed in artificial urine



Supplementary Figure 4: The prevention (closed circles) and dissolution (open circles) of calcium carbonate by HMP. Dashed line indicates a Ca:HMP ratio of 1:3. Mean \pm SD (n=3).



Supplementary Figure 5: Representative 2D cut through images of microCT scans of stones before and after treatment.