Nucleation of hydroxyapatite at room T  $Ca_5(PO_4)_3(OH)$ **LSTerre** 100 Raman intensity 1600 961 80 -Ca<sub>10</sub>(PO<sub>4</sub>)<sub>6</sub>(OH)<sub>2</sub> 1800 108min 2000 2200 2400 Time (minutes) 959 Raman intensity (a.u.) 36min HAp 60 OCP Ca<sub>8</sub>(HPO<sub>4</sub>)<sub>2</sub>(PO<sub>4</sub>)<sub>4</sub>.5H<sub>2</sub>O 32min **HAp Nucleation time** 25min 953 X=0.21 OCP **ACP lifetime** 10min 20 X=0.29 1min ACP X=0.43  $Ca(HPO_4)_{1-x}(PO_4)_{(2/3)x}, nH_2O$ 0 900 920 960 980 1000 1020 940 1040 1000 900 920 1020 1040 Wavenumber (cm<sup>-1</sup>) Wavenumber (cm<sup>-1</sup>)