

Electronic supplementary information

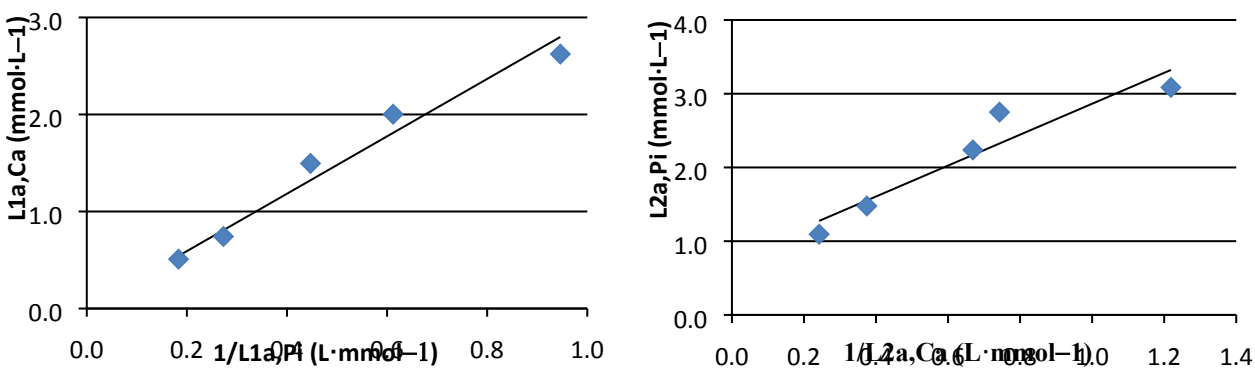
## Quantitative chemical relations at pseudo-equilibrium in amorphous calcium phosphate formation

Qun Zhang,<sup>a</sup> Yang Liu,<sup>a</sup> Bao-Di Gou,<sup>a</sup> Lei Zheng,<sup>b</sup> Yu-Xi Gao<sup>b</sup> and Tian-Lan Zhang<sup>a,\*</sup>

<sup>a</sup> Department of Chemical Biology, Peking University School of Pharmaceutical Sciences, 38 Xueyuan Road, Beijing 100191, P.R. China

<sup>b</sup> Beijing Synchrotron Radiation Facility and Key Laboratory of Nuclear Analytical Techniques, Institute of High Energy Physics, Chinese Academy of Sciences, 19B Yuquan Road, Beijing 100049, P.R. China

\* E-mail: tlzhang@hsc.pku.edu.cn.



**Fig. S1** Relations between the concentrations of calcium and phosphate in solution after the completion of the rapid pH-drop.

(a)  $L1_{a,Ca} = 2.96/L1_{a,Pi}$  ( $R^2 = 0.9663$ ). Reaction series 1:  $[Ca^{2+}]_0 = 4.00$  mmol·L<sup>-1</sup>,  $[Pi]_0 = 2.00, 3.00, 4.00, 6.00, 8.00$  mmol·L<sup>-1</sup>.

(b)  $L2_{a,Pi} = 0.767 + 2.10/L2_{a,Ca}$  ( $R^2 = 0.9001$ ). Reaction series 2:  $[Pi]_0 = 4.00$  mmol·L<sup>-1</sup>,  $[Ca^{2+}]_0 = 2.00, 3.00, 4.00, 6.00, 8.00$  mmol·L<sup>-1</sup>.