Electronic Supplementary Material (ESI) for Nanoscale.

Using HAADF-STEM for atomic-scale evaluation of incorporation of antibacterial Ag atoms in a β-tricalcium phosphate structure

Ozkan Gokcekaya[1*], Kyosuke Ueda[2], Takayuki Narushima[2], Takayoshi Nakano[1]

[1]Graduate School of Engineering, Osaka University, 2-1 Yamadaoka, Suita, Osaka, 565-0871, Japan

[2]Department of Materials Processing, Tohoku University; 6-6-02 Aza Aoba, Aramaki, Aoba-ku; Sendai, Miyagi 980-8579, Japan

Table S1 Notation and composition of the specimens used in this study.

Notation	(Ca+Ag)/P atomic ratio	Ag/(Ca+Ag) atomic ratio
Pure β-TCP	1.5	0
0.09Agβ-TCP	1.5	0.091
0.29Agβ-TCP	1.5	0.291

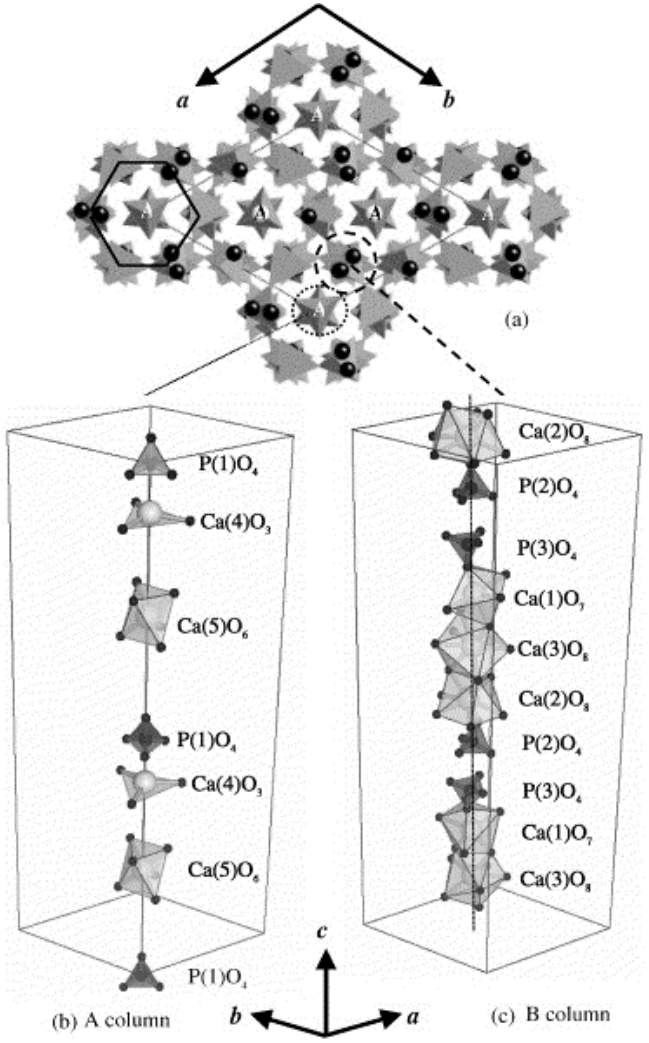

Figure S1 Crystal structure of β-TCP. (a) hexagonal unit cell and (b) *c*-axis of A and B column.

M. Yashima et al., J. Solid State Chem. 175, 272-77, 2003.

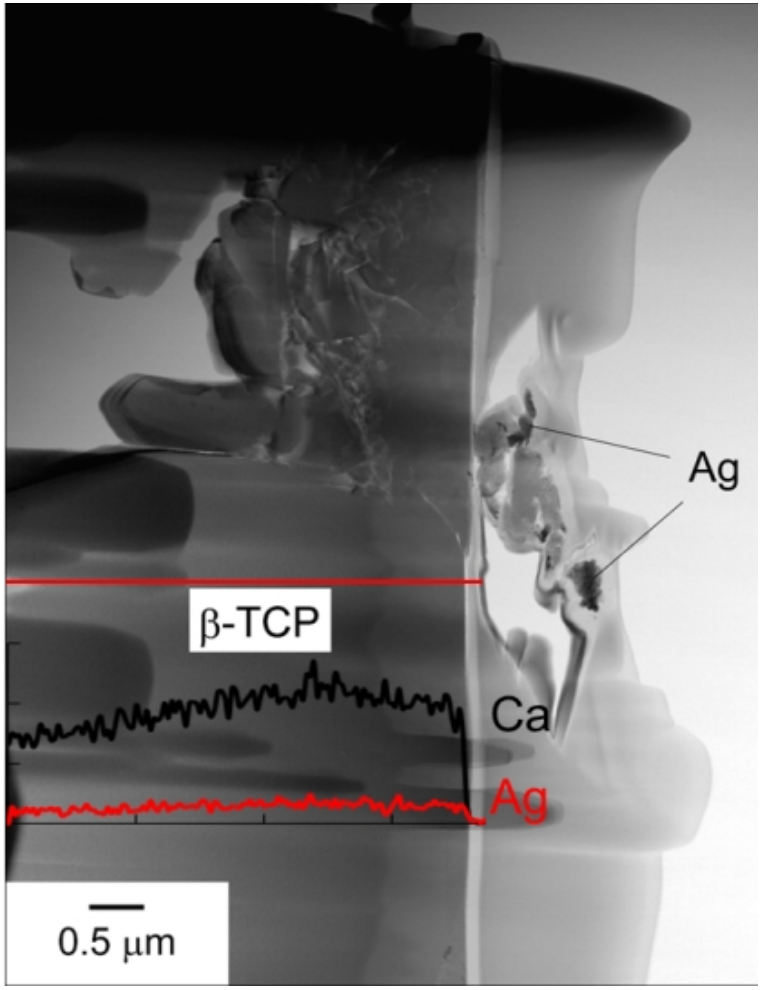

Figure S2 TEM image and TEM-EDS line analysis of 0.29Agβ-TCP.

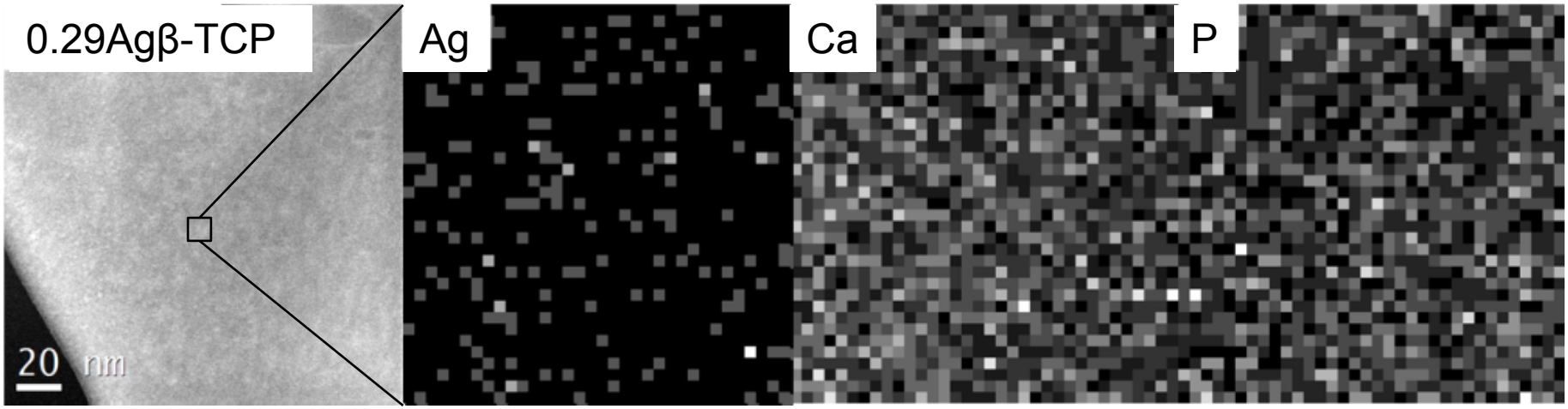

Figure S3 TEM-EDS scanning of 0.29Agβ-TCP at 10 x 10 nm resolution.

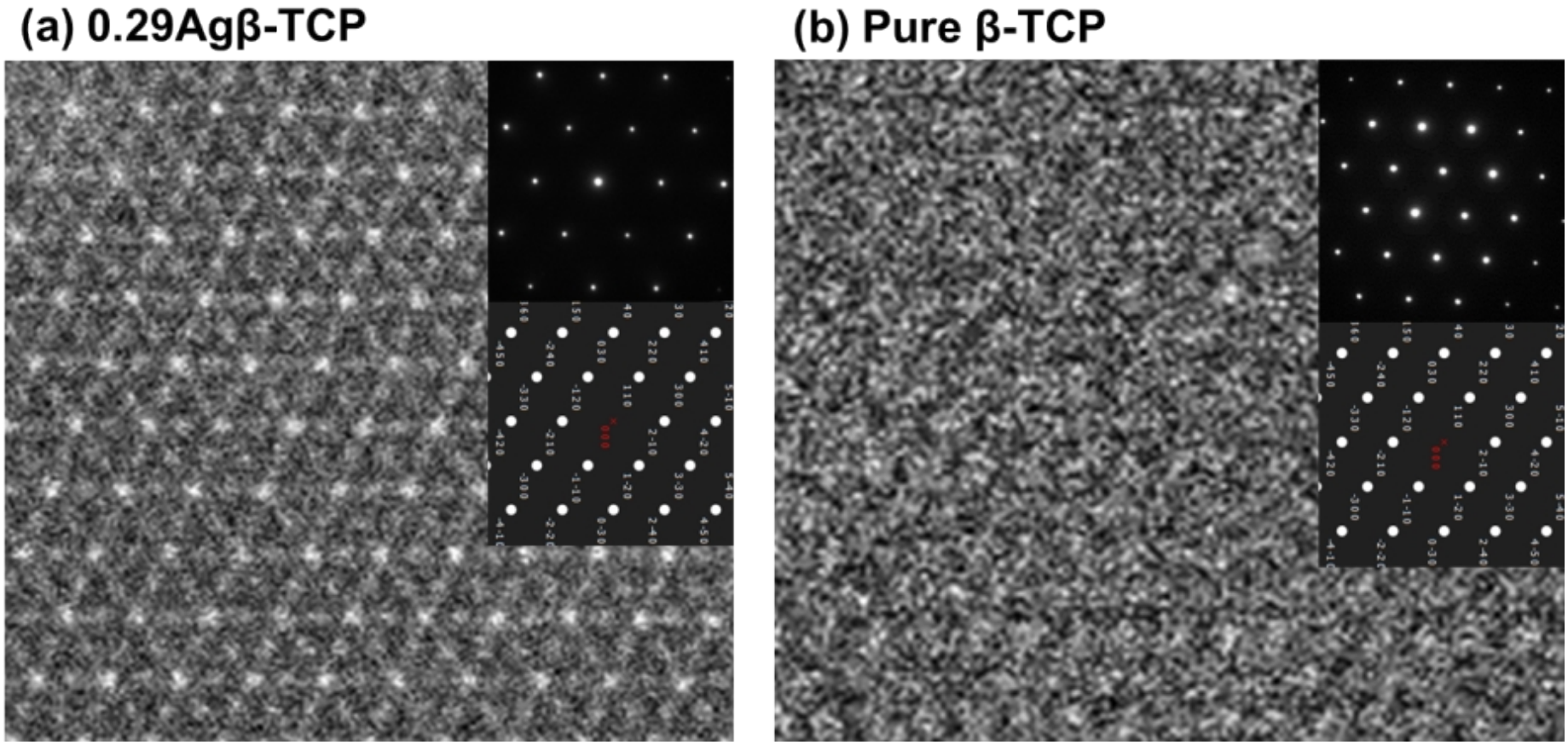

Figure S4 Experimental HAADF-STEM image of (a) 0.29Agβ-TCP and (b) pure β-TCP at [001] zone axis.

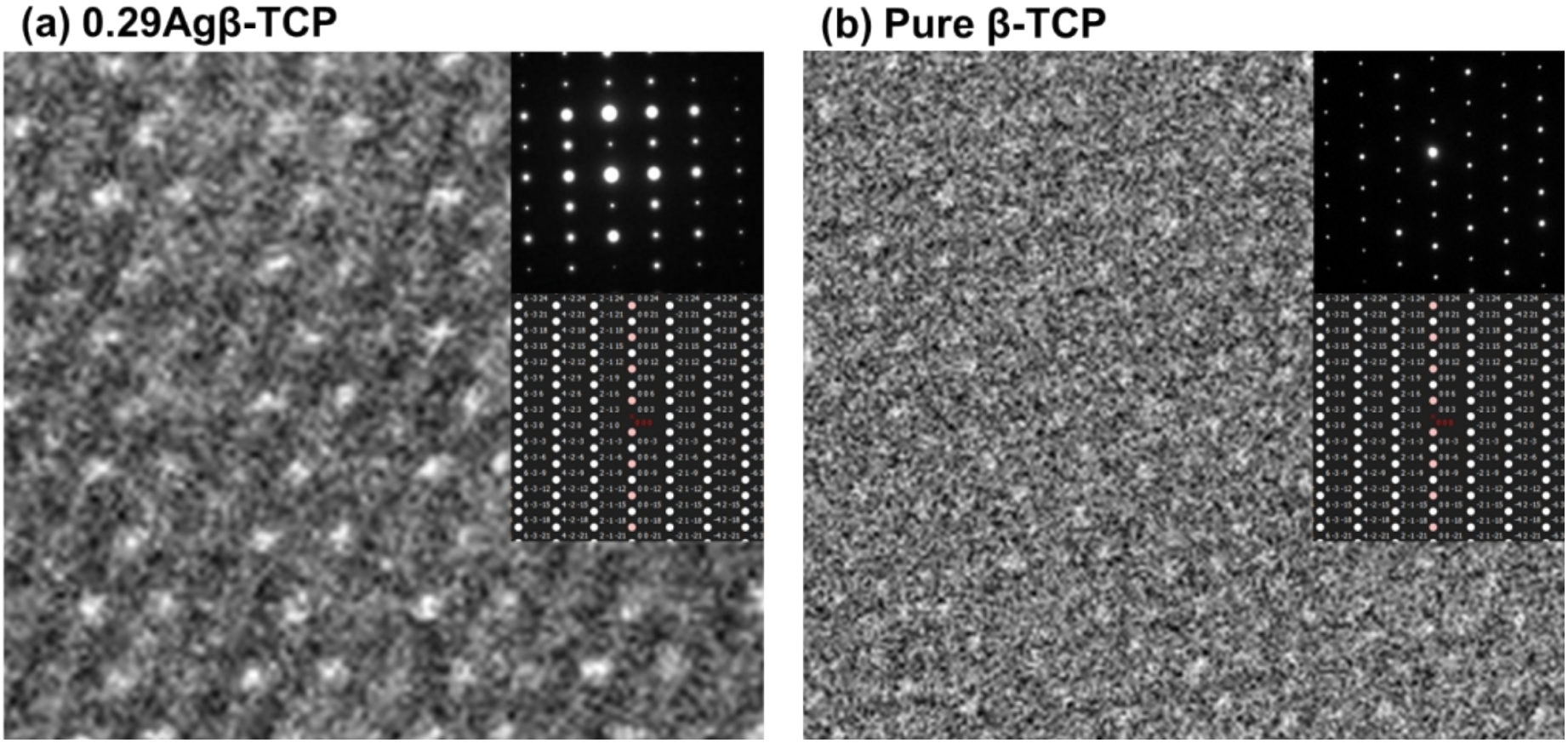

Figure S5 Experimental HAADF-STEM image of (a) 0.29Agβ-TCP and (b) pure β-TCP at [010] zone axis.