

Supporting information for

L-Serine Combined with Carboxymethyl Chitosan Guides Amorphous Calcium Phosphate to Remineralize Enamel

Yinghui Wang^{a,1}, Shuting Zhang^{a,1}, Peiwen Liu^{a,d,1}, Fan Li^a, Xu Chen^a, Haorong Wang^a, Zhangyi Li^c, Xi Zhang^a, Xiangyu Zhang^{a,*}, Xu Zhang^{a,b,*}

* Authors to whom correspondence should be addressed.

¹These three first authors contributed equally to this work.

Affiliations

a School and Hospital of Stomatology, Tianjin Medical University, Tianjin 300070, China.

b Institute of Stomatology, Tianjin Medical University, Tianjin 300070, China.

c Department of Stomatology, the Fifth Central Hospital of Tianjin, No. 41, Zhejiang Road, Tanggu, Binhai New District, 300450 Tianjin, China.

d Department of stomatology, No.7 people's hospital of Zhengzhou, No. 17, Jingnan 5th Road, Economic and Technological Development Zone, Zhengzhou City, Henan Province 450003, China.

Corresponding author

*Address correspondence to Prof. Xiangyu Zhang (e-mail: xzhang04@tmu.edu.cn) or to Prof. Xu Zhang (e-mail: zhxden@gmail.com, zhangxu@tmu.edu.cn).

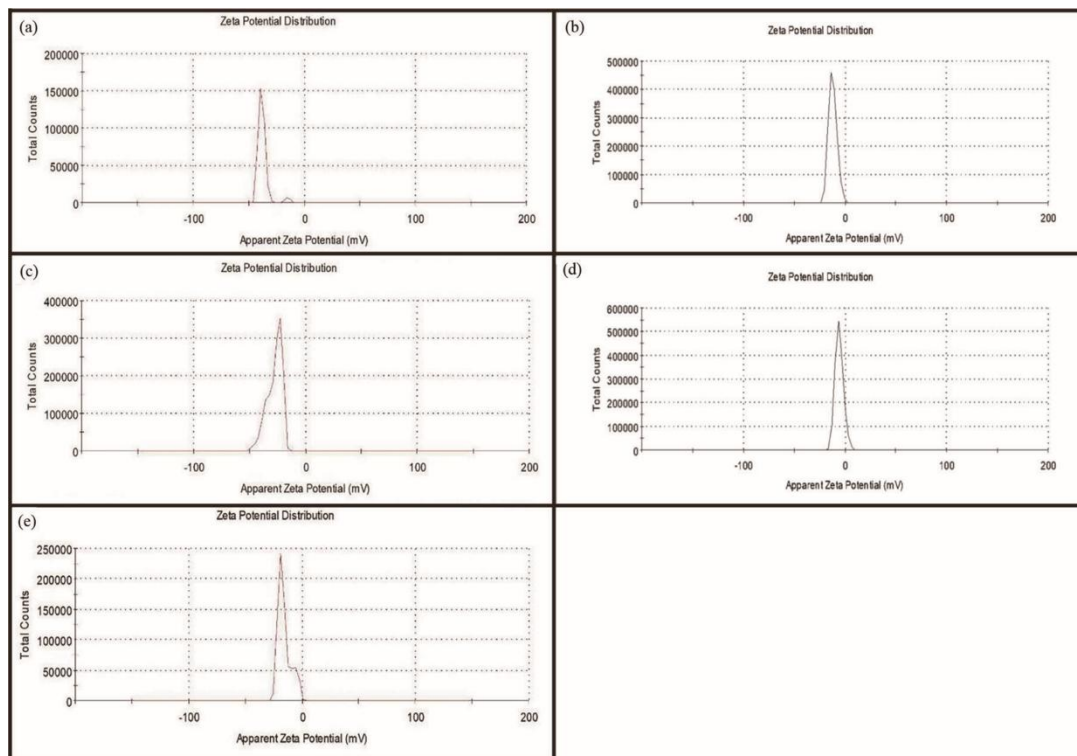


Fig. S1. Zeta potentials of the CMC solution (a), CMC-ACP solution (b), L-Ser solution (c), and Ser-ACP solution (d) at approximately -38.5 mV, -11.6 mV, -27.3 mV and -6.1 mV, respectively, and that of the CMC-Ser-ACP nanoparticles (e) at approximately -19.3 mV at pH 6.5.

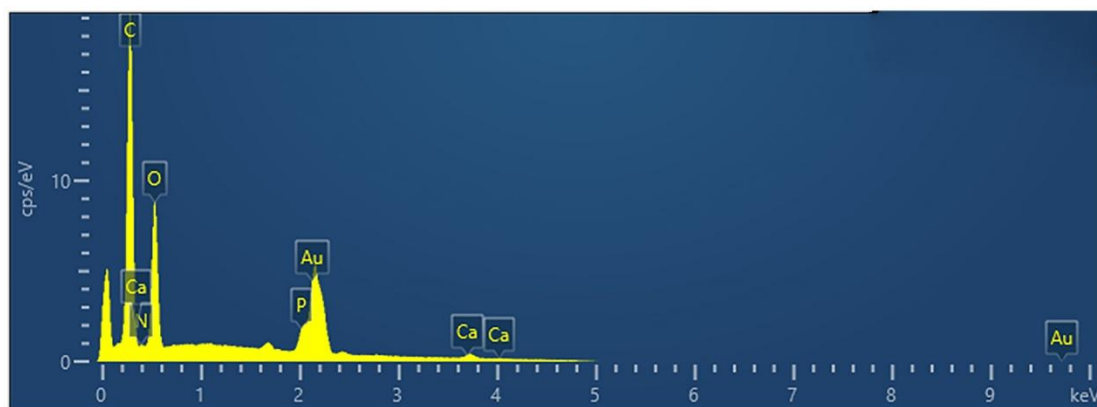


Fig. S2. EDX image of acid-etched enamel treated by CMC-Ser-ACP solution and NaClO.

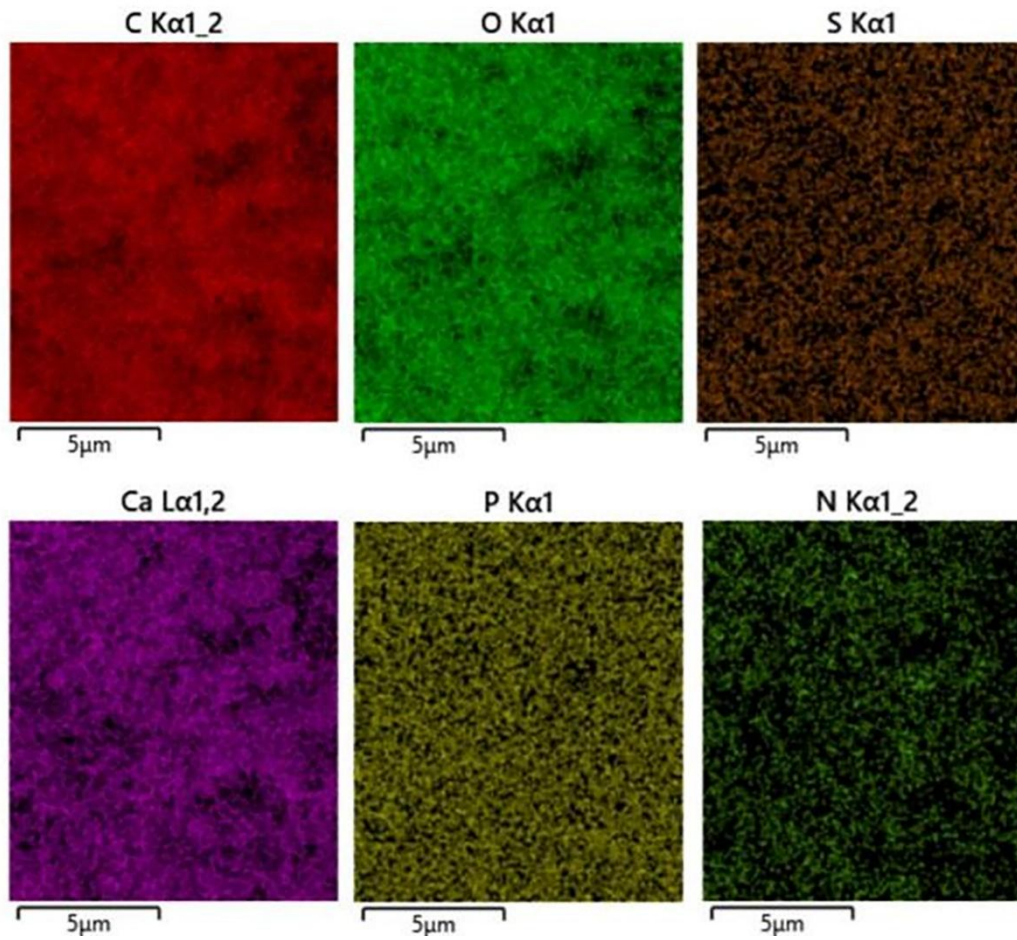


Fig. S3. Element distribution map of acid-etched enamel treated by CMC-Ser-ACP solution and NaClO.

Table S1.The ratio of main elements distribution of Acid-etched enamel treated by CMC-Ser-ACP solution and NaClO.

Element	Series	Weight%	Wt% Sigma	Atomic%
C	K-Series	24.32	0.30	61.51
O	K-Series	9.99	0.14	18.97
Au	M-Series	52.34	0.56	8.07
Ca	K-Series	8.44	0.64	6.40
P	K-Series	4.73	0.15	4.63
N	K-Series	0.19	0.17	0.42
Total		100.00		100.00