Supporting information

Influence of surface coating on the microstructures and dielectric properties of BaTiO₃ ceramic via cold sintering

process

S. L. Kangac, H. X. Guoa*, J. B. Wangc, X. L. Zhongc, B. Libd*

^a State Key Laboratory of Intense Pulsed Radiation Simulation and Effect (Northwest Institute of Nuclear Technology), Xi'an, 710024, China

^b Science and Technology on Reliability Physics and Application Technology of Electronic Component Laboratory, 510610, China

^c School of Materials and Engineering, Xiangtan University, Hunan Xiangtan 411105, China

^d Department of Materials Science and Engineering, Southern University of Science and Technology, Shenzhen, 518055, China



Fig. S1. (a), (b) XRD patterns of the BaTiO₃ powders and the BaTiO₃ powders calcined at 600 °C.

^{*} Author to whom correspondence should be addressed; electronic mail: <u>bli@xtu.edu.cn, guohxnint@126.com</u>



Fig. S2. The Ba 3*d*, Ti 2*p*, O 1*s* and C 1*s* photoelectron spectra of the BaTiO₃ powders calcined at 600 °C.



Fig. S3. Comparison of frequency dependence of dielectric properties of S1-5, S2-5 and S3-5.