

Synthesis of barium titanate nanoparticles using supercritical water with size controll

안기호, 김민수, 윤용석, 이윤우*
서울대학교
(ywlee@snu.ac.kr*)

Barium titanate, one of the most important materials in electronics industry, has outstanding dielectric properties. Thus, various methods have been investigated to synthesize barium titanate nanoparticles. For the barium titanate, size of particles is significant things since it determine the structure phase of barium titanate. In this study, barium titanate nanoparticles were prepared in size controllable manner using supercritical water. From the results, it was confirmed that size of precursors is key factor to control the size of barium titanate. From the tiny titanium precursors, small barium titanate nanoparticles were synthesized. And from further research, principles of size controllable synthesis in supercritical water was investigated.