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Abstract
The Ba1-xSrxTiO3 ceramic has the advantages of high dielectric constant, low Curie-temperature and low dielectric loss. It is generally used for the materials of capacitor, PTC and sensor…etc. The Ba1-xSrxTiO3 ceramics also have good ferroelectric properties, and widely for the use of non-volatile ferroelectrics random access memory (NvFERAM). However, the Ba1-xSrxTiO3 ceramic also have the disadvantage of high sintering temperature. In this study, Ba1-xSrxTiO3 (X = 0.1, 0.2) were used as the base materials, and CuO-TiO2 (0.5wt%, 1wt%, 1.5wt%, and 2wt%) were doped as the liquid phase sintering accelerators to decrease the sintering temperature and increase the grain growth. By the analysis of XRD, SEM, dielectric constant, and Curie-temperature, the best composition and manufacture parameters would be obtained.
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