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12 ABSTRACT

Dense Ba_{0.4}Sr_{0.6}TiO₃ceramics with fine grains and uniform microstructure were 13 prepared by sol-gel method and spark plasma sintering (SPS). The dielectric 14 15 properties, microstructures, and energy storage performance of spark plasma sintered Ba_{0.4}Sr_{0.6}TiO₃ ceramics were evaluated. Fine Ba_{0.4}Sr_{0.6}TiO₃ powders were synthesized 16 by sol-gel method at above 750°C. SPS technique showed its advantages in 17 suppressing exaggerated grain growth and increasing the relative density of 18 Ba_{0.4}Sr_{0.6}TiO₃ceramics. Diffuse phase transition and nearly linear P-E behavior were 19 observed in all samples. Moderate dielectric constant (~960), low dielectric loss 20

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