

Preparation of BaTiO₃ ceramic powders via sol-gel method

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Abstract BaTiO₃ ceramic powders were synthesized by a modified Pechini method using ethylenediaminetetraacetic acids (EDTA) as a chelating agent. A light yellow homogeneously mixed gel was prepared and transferred into a porous resin intermediate through charring. The precursors and derived oxide powders were characterized by XRD analysis for their crystal structure and TEM for their texture. The TEM photographs reveal nanoparticles in the size range 104.45 nm.

Keywords: BaTiO₃, ceramic powders, sol-gel, ethylenediaminetetraacetic acids, XRD, TEM
