

Ultrafine Monodispersed Microsphere Particles of Zirconium Titanate with Tailored Intraparticle Nanostructures by Homogeneous Dielectric-Tuning Coprecipitation

Disclosure Number

200201066

Technology Summary

The subject invention disclosed herein comprises a method for making amorphous solid microsphere precursor particles of zirconium titanate having a tailored intraparticle nanostructure (pores). Particle sizes (nanometers to a few micrometers in diameter) and intraparticle nanostructure (nanopores) were controlled by adjusting the process parameters. Zirconium titanates are widely used in electrical (common microwave dielectrics) and optical devices as well as bifunctional catalysis and structural ceramics.

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