

Preparation of nano-sized BaTiO₃ powders by spray pyrolysis with adding citric acid

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Barium titanate nano-sized powders were prepared by spray pyrolysis using barium carbonate (BaCO₃), titanium isopropoxide (Ti(i-OC₃H₇)₄) and citric acid (C₆H₈O₉·H₂O) as starting raw materials in an electric furnace heated at 1000°C.

Barium titanate powders calcinated at 1050°C for 2 hours were milled in ball mill (ZrO₂ balls) for 20 hours. Barium titanate powders prepared by spray pyrolysis had nano-sized particles and narrow particle distribution.