

NS6130-02-221

BARIUM TITANATE

Quick Facts

Nanoparticles

Product : Barium Titanate Nanoparticles

 Stock No
 :
 NS6130-02-221

 CAS
 :
 12047-27-7

Molecular Formula : BaTiO₃ Form : Powder Purity 99.9%

Technical Specification

Molecular Weight	Density	Melting Point	APS
233.192 g/mol	6.02 g/cm³	1625 °C	300nm

Barium titanate powder can be used in nonlinear optics as it has high beam-coupling gain and can operate at near-infrared and visible wavelengths. Barium titanate can be doped with certain amounts of other metals like yttrium, scandium and samarium to make it a semiconducting material. As a semiconductor, Barium titanate shows PTCR properties in polycrystalline form. Also at Curie temperature, Barium titanate shows an increased resistivity which can vary in magnitude. In this temperature, Barium titanate may change its phase from tetrahedral to cubic.



Application

- ✓ Electrical insulator
- ✓ In capacitors as a dielectric ceramic material
- ✓ Piezoelectric material in microphones
- ✓ Photorefractive applications

Ballo₃
APS 300nm











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