

electric properties, superconductors, semiconductors

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Microstructure and Semiconducting Properties of Barium Titanate Containing Heterovalent Substituents on the Titanium Site. —

The synthesis and properties of barium titanate containing heterovalent substituents on the Ti site, $\text{Ba}(\text{Ti}_{1-x}\text{M}_x)\text{O}_3$ (M: Nb, Ta, Mo, W; $x = 0.001\text{--}0.09$), is described. A change from tetragonal to cubic crystal symmetry is observed with increasing concentration of the heterovalent metal. However, the sequence of reactions running during ceramics synthesis remains unchanged. The semiconducting properties of the obtained doped barium titanates depend on the microstructure. — (BELOUS, A. G.; V'YUNOV, O. I.; KHOMENKO, B. S.; Neorg. Mater. 34 (1998) 6, 725-729; Inst. obshch. neorg. khim. im Vernadskogo, Nats. Akad. nauk Ukr., Kiev, Ukraine; RU)