

(02-134) - Effects of the addition of ions barium on the structural and electrical properties of PZT ceramic

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Lead zirconate titanate, with Zr/Ti ratio of 53/47 was prepared by the polymeric precursor method. The powders were doped with 0,0; 0,2; 0,4 and 0,6 mol% of Ba²⁺ and characterized by XRD. The percentages of tetragonal and rhombohedral phases were calculated through Rietveld refinement. A systematic study of the effect of dopant on the ferroelectric and piezoelectric properties of PZT was carried out. The results showed that the remanent polarization and piezoelectric charge constant increase with barium concentration.
