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(54) PIEZOELECTRIC MATERIALS AND PIEZOELECTRIC DEVICES

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(57)ABSTRACT

A piezoelectric material and a piezoelectric device. The piezoelectric material includes: a matrix, wherein a crystal structure of the matrix is an ABO₃-type perovskite structure, the perovskite structure includes a rhombohedral structure and a tetragonal structure that coexist, and the matrix is near a morphotropic phase boundary; and a doping element, wherein the doping element is for replacing an A-site element or a B-site element in the perovskite structure, or filling a space in the perovskite structure, and the doping element is for increasing a difference between a lattice constant of the rhombohedral structure and a lattice constant of the tetragonal structure.

