CONTENTS

Shown that the classical crystallography is not able to adequately display the symmetry of the multiferroics, whose structure is determined by the laws of the local approach. The examples of the manifestations of these laws and their physical implications are considered.
Keywords: MULTIFERROICS, a local approach, the electronic subsystem

The results of experimental investigations of ainfluence compression stress amplitudes on quantity of the piezoelectric constants and generated piezoelement charge have been presented. Most stability of the voltage output there is with peizoelement from piezoceramic processed compression technology, particularly with piezoceramic PKR-78. Amongst main parameters which characterized a stability of the output power piezogenerator have been reliable a piezoelectric constant d33 of the ferroelectric material.
Keyword: piezoceramic, piezoelectric constants, axial compression, output voltage, piezoelectric generators

The vibratione proof lead-to-pad bonds of thin-film nano- and microelectromechanical systems (NaMEMS) and pressure sensors on the base is considered.
Keywords: thin-film nano- and microelectromechanical systems (NaMEMS), pressure sensor, vibration, temperature

The object of study is a superconducting film flux transformer in the form of a square shaped loop with the tapering operative strip. The magnetosensitive film element based on the giant magnetoresistance effect is overlapped with the tapering operative strip of the flux transformer and is separated from the latter by an insulator film.
It is shown that the topological nanostructuring of the operative strip of the flux transformer increases its gain factor by one or more orders of magnitude, i.e. increases its efficiency, which leads to a significant growth of important parameters of a magnetic field sensor.
Keywords: superconducting thin film, sensor, magnetic field, magnetic flux transformer, topological nanostructuring

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