ELECTRON AND NUCLEAR SPIN CONFIGURATIONS AND INDUCED MAGNETOSTRICTION OF "EASY-PLANE" TRIANGULAR ANTIFERROMAGNETS IN THE EXTERNAL MAGNETIC FIELD

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S u m m a r y

We consider the magnetic and magnetostrictive properties of triangular antiferromagnets with the ABX_3 structure. At arbitrary ratios between the integrals of exchange in a plane and between the planes, the dependence of three turn angles of the magnetic moments of ions of the sublattices on the external magnetic field is determined. It is shown that, at any ratios between those parameters, there are two critical slamming fields. The nuclear spin configurations of such compounds are analyzed. The dependence of the exchange and single-ion rhombohedral magnetostrictions on the external field is studied. All calculations were made for the homogeneously ordered state.