

ON THE THEORY OF MULTIFERROICS
WITH GIANT MAGNETOELECTRIC EFFECT

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The effect of the magnetoelectric interaction ($\vec{P}[\vec{L} \times \vec{M}]$), where \vec{P} , \vec{M} , \vec{L} are the electric polarization, magnetization, and antiferromagnetic vectors, respectively, on the magnetic and dielectric properties of a BiFeO₃-like ferroelectromagnet is considered. It is shown that the magnetoelectric interaction enhances the magnetoelectric effect, magnetic susceptibility, and electric polarizability and results in the renormalization of the values of electric polarization P_0 and magnetization M_0 .