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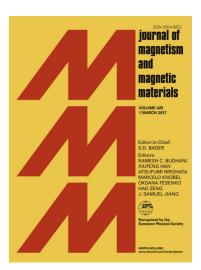
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### **ACCEPTED MANUSCRIPT**

# Asymmetry induced intrinsic magnetodielectric effects in manganite - barium titanate solid solutions

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#### Highlights

This paper is to study the off-center magnetic ions induced multiferroic.

Off-center Mn was obtained in hexagonal manganite-barium titanate solid solutions.

Solid solutions exhibited intrinsic MD effects at intermediate and high frequency.

Magnetic-field-induced asymmetric hopping contributed to the MD effects.

#### **Abstract**

Multiferroics, in which off-center magnetic ions induced ferroelectricity, are believed to exhibit enhanced magnetoelectric (ME) or magnetodielectric (MD) effects because their ferroelectricity and ferromagnetism are driven by the same originations. In this paper, multiferroics with off-center Mn ions were obtained in hexagonal

Professor Qiuyun Fu

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