# On the prospects for technical applications of BiFeO3 compounds substituted with rare-earth elements

Reznichenko L.A., Batdalov A.B., Verbenko I.A., Razumovskaya O.N., Shilkina L.A., Amirov A.A.

Research Institute of Physics, Southern Federal University, pr. Stachki 194, Rostov-on-Don 344090, Russian Federation; Amirkhanov Institute of Physics, Dagestan Scientific Center, Russian Academy of Sciences, ul. Yaragskogo 94, Makhachkala 367003, Russian Federation

Abstract: Solid solutions of Bi1-xRexFeO3 (Re=La, Nd; x=0-0.2) compounds were synthesized, and their room-temperature magnetoelectric and magnetodielectric properties were studied. Amplification of magnetoelectric and magnetodielectric effects with increasing the rare-earth doping level was detected in the concentration range x under study. The results obtained confirm the prospects for applications of bismuth ferrite-based compounds as magnetoelectric converters and magnetic field sensors. © 2010 Allerton Press, Inc.

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Authors with affiliations:

1. Reznichenko, L.A., Research Institute of Physics, Southern Federal University, pr. Stachki 194, Rostov-on-Don 344090, Russian Federation
2. Batdalov, A.B., Amirkhanov Institute of Physics, Dagestan Scientific Center, Russian Academy of Sciences, ul. Yaragskogo 94, Makhachkala 367003, Russian Federation
3. Verbenko, I.A., Research Institute of Physics, Southern Federal University, pr. Stachki 194, Rostov-on-Don 344090, Russian Federation
4. Razumovskaya, O.N., Research Institute of Physics, Southern Federal University, pr. Stachki 194, Rostov-on-Don 344090, Russian Federation
5. Shilkina, L.A., Research Institute of Physics, Southern Federal University, pr. Stachki 194, Rostov-on-Don 344090, Russian Federation
6. Amirov, A.A., Amirkhanov Institute of Physics, Dagestan Scientific Center, Russian Academy of Sciences, ul. Yaragskogo 94, Makhachkala 367003, Russian Federation