

List of publications

1. Gobinda Das Adhikary, Vivek Dwij, Anatoliy Senyshyn, Vasant Sathe, and **Rajeev Ranjan**
Large nonlinear electrostrain and piezoelectric response in nonergodic (Na, K)0.5Bi0.5TiO3: Synergy of structural disorder and tetragonal phase in proximity to a morphotropic phase boundary
Physical Review Materials **5**, 064414 (2021)
2. Gobinda Das Adhikary, Bhoopesh Mahale, Badari Narayana Rao, Anatoliy Senyshyn, and **Rajeev Ranjan**
Depoling phenomenon in Na_{0.5}Bi_{0.5}TiO₃-BaTiO₃: A structural perspective
Physical Review B **103**, 184106 (2021)
3. Sujoy Saha, Ram Prakash Singh, Ying Liu, Atal Bihari Swain, Amritesh Kumar, V. Subramanian, A. Arockiarajan, G. Srinivasan, and **Rajeev Ranjan**
Strain transfer in ferroelectric-ferrimagnetic magnetoelectric composite
Physical Review B **103**, L140106 (2021)
4. Gobinda Das Adhikary, Bhoopesh Mahale, Anatoliy Senyshyn, and **Rajeev Ranjan**
Relaxor ground state forced by ferroelastic instability in K_{0.5}Bi_{0.5}TiO₃-Na_{0.5}Bi_{0.5}TiO₃
Physical Review B **102**, 184113 (2020)
5. Gobinda Das Adhikary and **Rajeev Ranjan**
Abrupt change in domain switching behavior within tetragonal phase regime of (x)Na_{1/2}Bi_{1/2}TiO₃-(1-x)K_{1/2}Bi_{1/2}TiO₃
Journal of Applied Physics **128**, 204102 (2020) ([invited submission](#))
6. **Rajeev Ranjan**
Na_{1/2}Bi_{1/2}TiO₃-based lead-free piezoceramics: a review of structure–property correlation ([invited review](#))
Current Science **118**, 1507 (2020)
7. Arnab De and **Rajeev Ranjan**
Large structural heterogeneity in sub-micrometer BaTiO₃ revealed via Eu⁺³ photoluminescence study
Journal of Applied Physics **128**, 124104 (2020) (*This paper was among the Editor's pick*)
8. K. Datta, Kumar Brajesh, **Rajeev Ranjan**, and B. Mihailova
Adaptive dipolar correlation in ferroelectric x(Ba_{0.7}Ca_{0.3})TiO₃-(1-x)Ba(Zr_{0.2}Ti_{0.8})O₃
Physical Review B **102**, 060102(R) (2020)
9. Sujoy Saha, Ram Prakash Singh, Avinash Kumar, Arnab De, Prafull Pandey, Bastola Narayan, Himalay Basumatary, Anatoliy Senyshyn, and **Rajeev Ranjan**
Magnetic enhancement of ferroelectric polarization in a particulate multiferroic composite derived in situ via additive assisted sintering of a pseudo ternary alloy system BiFeO₃-PbTiO₃-DyFeO₃
Applied Physics Letters **116**, 142902 (2020)
10. Naveen Kumar, Anupam Mishra, Arnab De, Uma Shankar and **Rajeev Ranjan**
Factors associated with the local polar-structural heterogeneity and ultrahigh piezoelectricity in Sm-modified Pb(Mg_{1/3}Nb_{2/3})O₃-PbTiO₃

J. Phys. D Appl. Phys. **53**, 165302 (2020)

11. Arnab De and **Rajeev Ranjan**
Large temperature tuning of emission color of a phosphor by dual use of Raman and Photoluminescence signals
Materials Horizons **7**, 1101 (2020)
12. Gobinda Das Adhikary, Dipak Kumar Khatua, Anupam Mishra, Arnab De, Naveen Kumar, Sujoy Saha, Uma Shankar, Anatoliy Senyshyn, Badari Narayana Rao, and **Rajeev Ranjan**
Increasing intervention of nonferroelectric distortion and weakening of ferroelectricity at the morphotropic phase boundary in $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3\text{-BaTiO}_3$
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14. Uma Shankar, Naveen Kumar, Bastola Narayan, Diptikanta Swain, Anatoliy Senyshyn, and **Rajeev Ranjan**
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15. Dipak Kumar Khatua, Anupam Mishra, Naveen Kumar, Gobinda Das Adhikary, Uma Shankar, Bhaskar Majumdar, **Rajeev Ranjan**
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