

Rabindra Nath Bhowmik

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,116
citations

331670

21
h-index

414414

32
g-index

60
all docs

60
docs citations

60
times ranked

1185
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Magnetic enhancement in antiferromagnetic nanoparticle of CoRh_2O_4 . <i>Physical Review B</i> , 2004, 69, . | 3.2 | 105 |
| 2 | Dopamine functionalization of BaTiO_3 : an effective strategy for the enhancement of electrical, magnetoelectric and thermal properties of BaTiO_3 -PVDF-TrFE nanocomposites. <i>Dalton Transactions</i> , 2018, 47, 2039-2051. | 3.3 | 74 |
| 3 | Lattice expansion and noncollinear to collinear ferrimagnetic order in aMnCr_2O_4 nanoparticle. <i>Physical Review B</i> , 2006, 73, . | 3.2 | 68 |
| 4 | Role of strain-induced anisotropy on magnetic enhancement in mechanically alloyed $\text{Co}_0.2\text{Zn}_0.8\text{Fe}_2\text{O}_4$ nanoparticle. <i>Physical Review B</i> , 2005, 72, . | 3.2 | 50 |
| 5 | Flexible and self-standing nickel ferrite/PVDF-TrFE cast films: promising candidates for high-end magnetoelectric applications. <i>Dalton Transactions</i> , 2019, 48, 16961-16973. | 3.3 | 45 |
| 6 | Magnetic order and electrical conductivity scaling of the spinel oxide $\text{Mn}_0.5\text{Ru}_0.5\text{Co}_2\text{O}_4$. <i>Physical Review B</i> , 2006, 74, . | 3.2 | 44 |
| 7 | Magnetism of crystalline and amorphous $\text{La}_0.67\text{Ca}_0.33\text{MnO}_3$ nanoparticles. <i>Journal of Applied Physics</i> , 2009, 105, . | 2.5 | 43 |
| 8 | Evidence of disorder induced magnetic spin glass phase in $\text{Sr}_2\text{FeMoO}_6$ double perovskite. <i>Journal of Applied Physics</i> , 2009, 106, . | 2.5 | 41 |
| 9 | Magnetic enhancement of $\text{Co}_0.2\text{Zn}_0.8\text{Fe}_2\text{O}_4$ spinel oxide by mechanical milling. <i>Physical Review B</i> , 2003, 68, . | 3.2 | 40 |
| 10 | Grain size dependent magnetization, electrical resistivity and magnetoresistance in mechanically milled $\text{La}_0.67\text{Sr}_0.33\text{MnO}_3$. <i>Journal of Alloys and Compounds</i> , 2012, 511, 22-30. | 5.5 | 40 |
| 11 | Dielectric properties of $\hat{\Gamma}_\pm\text{-Fe}_{1.6}\text{Ga}_{0.4}\text{O}_3$ oxide: A promising magneto-electric material. <i>Journal of Alloys and Compounds</i> , 2016, 680, 31-42. | 5.5 | 37 |
| 12 | Structural characterization and ferromagnetic properties in Ga_3 -doped $\hat{\Gamma}_\pm\text{-Fe}_2\text{O}_3$ system prepared by coprecipitation route and vacuum annealing. <i>Journal of Applied Physics</i> , 2014, 116, . | 2.5 | 32 |
| 13 | Magnetic and electrical properties of Ti-substituted lanthanum bismuth manganites. <i>Journal of Materials Science</i> , 2015, 50, 3562-3575. | 3.7 | 30 |
| 14 | Structural phase change in $\text{Co}_{2.25}\text{Fe}_{0.75}\text{O}_4$ spinel oxide by vacuum annealing and role of coexisting CoO phase on magnetic properties. <i>Journal of Alloys and Compounds</i> , 2015, 646, 161-169. | 5.5 | 30 |
| 15 | Study of microstructure and semiconductor to metallic conductivity transition in solid state sintered $\text{Li}_{0.5}\text{Mn}_{0.5}\text{Fe}_2\text{O}_4$ spinel ferrite. <i>Journal of Applied Physics</i> , 2013, 114, . | 2.5 | 29 |
| 16 | Size dependent magnetic phase of nanocrystalline $\text{Co}_0.2\text{Zn}_0.8\text{Fe}_2\text{O}_4$. <i>Journal of Applied Physics</i> , 2001, 90, 4138-4142. | 2.5 | 27 |
| 17 | Dielectric and magnetic study of $\text{BaTi}_{0.5}\text{Mn}_{0.5}\text{O}_3$ ceramics, synthesized by solid state sintering, mechanical alloying and chemical routes. <i>Ceramics International</i> , 2012, 38, 5069-5080. | 4.8 | 27 |
| 18 | Unusual bidirectional frequency dependence of dynamical susceptibility in hexagonal intermetallic $\text{Pr}_2\text{Ni}_{0.95}\text{Si}_{2.95}$. <i>Scientific Reports</i> , 2018, 8, 14870. | 3.3 | 26 |

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|----|---|-----|-----------|
| 19 | Air annealing effects on lattice structure, charge state distribution of cations, and room temperature ferrimagnetism in the ferrite composition $\text{Co}_{2.25}\text{Fe}_{0.75}\text{O}_4$. Materials Research Express, 2015, 2, 036101. | 1.6 | 24 |
| 20 | Role of pH value during material synthesis and grain-grain boundary contribution on the observed semiconductor to metal like conductivity transition in $\text{Ni}_{1.5}\text{Fe}_{1.5}\text{O}_4$ spinel ferrite. Materials Chemistry and Physics, 2016, 177, 417-428. | 4.0 | 24 |
| 21 | Tuning of composite cubic spinel structure in $\text{Co}_{1.75}\text{Fe}_{1.25}\text{O}_4$ spinel oxide by thermal treatment and its effects on modifying the ferrimagnetic properties. Journal of Alloys and Compounds, 2016, 680, 315-327. | 5.5 | 23 |
| 22 | Electric field controlled magnetic exchange bias and magnetic state switching at room temperature in Ga-doped $\text{Î±-Fe}_2\text{O}_3$ oxide. Journal of Magnetism and Magnetic Materials, 2018, 462, 105-118. | 2.3 | 21 |
| 23 | Study of surface magnetism, exchange bias effect, and enhanced ferromagnetism in $\text{Î±-Fe}_{1.4}\text{Ti}_{0.6}\text{O}_3$ alloy. Journal of Applied Physics, 2011, 109, . | 2.5 | 20 |
| 24 | Connectivity between electrical conduction and thermally activated grain size evolution in Ho-doped CoFe_2O_4 ferrite. Journal Physics D: Applied Physics, 2010, 43, 465002. | 2.8 | 19 |
| 25 | Dielectric properties and signature of multi-ferroelectricity in Co_2FeO_4 : A structurally single phased and bi-phased spinel oxide. Journal of Alloys and Compounds, 2014, 589, 247-257. | 5.5 | 19 |
| 26 | Effect of annealing temperatures on the electrical conductivity and dielectric properties of $\text{Ni}_{1.5}\text{Fe}_{1.5}\text{O}_4$ spinel ferrite prepared by chemical reaction at different pH values. Materials Research Express, 2017, 4, 126105. | 1.6 | 17 |
| 27 | Non-equilibrium character of resistive switching and negative differential resistance in Ga-doped Cr_2O_3 system. Journal of Magnetism and Magnetic Materials, 2018, 457, 17-29. | 2.3 | 17 |
| 28 | Re-entrant spin glass and magnetoresistance in $\text{Co}_{0.2}\text{Zn}_{0.8}\text{Fe}_{1.6}\text{Ti}_{0.4}\text{O}_4$ spinel oxide. Journal of Applied Physics, 2003, 93, 2780-2788. | 2.5 | 14 |
| 29 | Physical properties of R_3R^{3+} (R = Gd, Tb, Ho) compounds with coexisting polymorphic phases. Physical Chemistry Chemical Physics, 2019, 21, 16923-16936. | 2.8 | 13 |
| 30 | Disorder induced magnetism and electrical conduction in La doped $\text{Ca}_2\text{FeMoO}_6$ double perovskite. Journal of Applied Physics, 2010, 108, 103908. | 2.5 | 12 |
| 31 | Study of disorder effects in La substituted $\text{Ca}_2\text{FeMoO}_6$ ferrimagnet using magnetic and transport measurements. Journal of Alloys and Compounds, 2009, 486, 536-542. | 5.5 | 11 |
| 32 | High-Temperature Thermal Cycling Effect on the Irreversible Responses of Lattice Structure, Magnetic Properties, and Electrical Conductivity in $\text{Co}_{2.75}\text{Fe}_{0.25}\text{O}_4$ Spinel Oxide. Inorganic Chemistry, 2020, 59, 6763-6773. | 4.0 | 11 |
| 33 | Study of magnetic field induced spin order in diluted antiferromagnetic states in a Ga doped $\text{Î±-Fe}_2\text{O}_3$ system prepared by a chemical route and air annealing. RSC Advances, 2016, 6, 112960-112970. | 3.6 | 10 |
| 34 | Structural phase stabilization via Ba site doping with bivalent Sr, Ca and Zn ions and Fe site doping with trivalent Cr and Ga ions in the $\text{BaFe}_{12}\text{O}_{19}$ hexaferrite and its magnetic modification. CrystEngComm, 2022, 24, 5269-5288. | 2.6 | 10 |
| 35 | Enhanced magnetoresistance on substitution of Mn in SrRuO_3 . Journal of Physics Condensed Matter, 2001, 13, 9481-9488. | 1.8 | 8 |
| 36 | Tuning of structural phase, magnetic spin order and electrical conductivity in mechanical alloyed material of $\text{Î±-Fe}_2\text{O}_3$ and $\text{Î±-Cr}_2\text{O}_3$ oxides. Journal of Magnetism and Magnetic Materials, 2020, 514, 167173. | 2.3 | 8 |

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|----|--|-----|-----------|
| 37 | Structural and magnetic properties of room temperature milled Co _{0.2} Zn _{0.8} Fe ₂ O ₄ spinel oxide. Journal of Materials Science, 2002, 37, 4391-4398. | 3.7 | 7 |
| 38 | Structural, magnetic and electrical study of nano-structured $\text{Fe}_{1.4}\text{Ti}_{0.6}\text{O}_3$. Journal of Physics and Chemistry of Solids, 2012, 73, 330-337. | 4.0 | 7 |
| 39 | Influence of Particle Size on the Electrical Properties and Magnetic Field Dependent ϵ'' Characteristics of Nanocrystalline ZnFe ₂ O ₄ . Transactions of the Indian Ceramic Society, 2019, 78, 111-120. | 1.0 | 5 |
| 40 | Experimental study of multiple magnetic transitions in micrometer and nano-grain sized Ni ₃ TeO ₆ -type oxide. Journal of Applied Physics, 2020, 128, 123902. | 2.5 | 5 |
| 41 | Non-equilibrium magnetic properties in bimorphic phases of Er ₃ . Journal Physics D: Applied Physics, 2020, 53, 365304. | 2.8 | 5 |
| 42 | Compositional dependence of structural, magnetic and spin-phonon coupling properties in Fe ₂ xGa _x O ₃ (x=0.6-1.2) system with orthorhombic symmetry. Journal of Alloys and Compounds, 2022, 905, 164164. | 5.5 | 5 |
| 43 | Meta-stable magnetic transitions and its field dependence in Co _{2.75} Fe _{0.25} O ₄ ferrite. AIP Conference Proceedings, 2018, , . | 0.4 | 2 |
| 44 | Structural, magnetic and magneto-electric properties of Cr doped Fe_2O_3 . AIP Conference Proceedings, 2019, , . | 0.4 | 2 |
| 45 | Existence of two spin dynamics in the temperature and magnetic field dependence of the magnetization curves of ferrimagnetic Co _{1.75} Fe _{1.25} O ₄ and its composite with BaTiO ₃ . Journal of Physics and Chemistry of Solids, 2021, 155, 110103. | 4.0 | 2 |
| 46 | Structural And Magnetic Transition In Mechanically Milled La _{0.67} Ca _{0.33} MnO ₃ . AIP Conference Proceedings, 2008, , . | 0.4 | 1 |
| 47 | Structural and electrical conductivity study of mechanical alloyed $\text{Fe}_{1.4}\text{Ti}_{0.6}\text{O}_3$ oxide. , 2011, , . | | 1 |
| 48 | Study of current-voltage characteristics of ferromagnetic $\text{Fe}_{1.64}\text{Ga}_{0.36}\text{O}_3$ oxide under magnetic fields. AIP Conference Proceedings, 2015, , . | 0.4 | 1 |
| 49 | Structure and magnetic properties of the composite of Co _{1.75} Fe _{1.25} O ₄ and BaTiO ₃ . AIP Conference Proceedings, 2015, , . | 0.4 | 1 |
| 50 | Effect of structural phase transformation in FeGaO ₃ on its magnetic and ferroelectric properties. AIP Conference Proceedings, 2015, , . | 0.4 | 1 |
| 51 | Semiconductor to metallic type transition in Ni _{1.5} Fe _{1.5} O ₄ ferrite. AIP Conference Proceedings, 2016, , . | 0.4 | 1 |
| 52 | Magnetic spin order in the honeycomb structured $\text{PbCo}_6\text{O}_{19}$ compound. Physical Review B, 2021, 104, . | 3.2 | 1 |
| 53 | La Doped Disorder in La _x Ca _{2-2x} FeMoO ₆ Ferrimagnet: Magnetic and Thermoelectric Study. , 2011, , . | | 0 |
| 54 | Grain size dependent magneto-transport in La _{0.67} Sr _{0.33} MnO ₃ . , 2011, , . | | 0 |

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|----|--|-----|-----------|
| 55 | Ga doped hematite (Fe_2O_3): A promising magnetic sensor material. , 2015, , . | | 0 |
| 56 | Structure, magnetic and electronic properties in Ga doped Cr_2O_3 oxide. AIP Conference Proceedings, 2017, , . | 0.4 | 0 |
| 57 | Magnetic field controlled electronic state and electric field controlled magnetic state in $\text{Fe}_{1.6}\text{Ga}_{0.4}\text{O}_3$ oxide. AIP Conference Proceedings, 2018, , . | 0.4 | 0 |
| 58 | Lattice and magnetic structure in $\text{Co}_{1.25}\text{Fe}_{1.75}\text{O}_4$ spinel ferrite using temperature dependent neutron diffraction. AIP Conference Proceedings, 2019, , . | 0.4 | 0 |
| 59 | Effect of heat treatment on structural and magnetic properties of $\text{Fe}_{1.8}\text{Ga}_{0.2}\text{O}_3$ thin film. AIP Conference Proceedings, 2020, , . | 0.4 | 0 |
| 60 | Study of the modified magnetic, dielectric, ferroelectric and optical properties in Ni substituted $\text{GdFe}_{1-x}\text{Ni}_x\text{O}_3$ orthoferrites. Nanotechnology, 2022, 33, 035705. | 2.6 | 0 |