

# Vasundhara Mutta

## List of Publications by Year in descending order

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67  
papers

1,606  
citations

257357

24  
h-index

315616

38  
g-index

67  
all docs

67  
docs citations

67  
times ranked

1856  
citing authors

#	ARTICLE	IF	CITATIONS
1	Study of structural, optical and magnetic properties of cobalt doped ZnO nanorods. RSC Advances, 2017, 7, 50527-50536.	1.7	150
2	Visible range optical absorption, Urbach energy estimation and paramagnetic response in Cr-doped TiO <sub>2</sub> nanocrystals derived by a sol-gel method. Physical Chemistry Chemical Physics, 2019, 21, 12991-13004.	1.3	137
3	Structural and magnetic study of undoped and cobalt doped TiO <sub>2</sub> nanoparticles. RSC Advances, 2018, 8, 10939-10947.	1.7	118
4	Electronic transport in Heusler-type $\text{Fe}_{1-x}\text{Mn}_x\text{Ti}_2$ alloys. Physical Review B, 2008, 77, 114407.	1.1	72
5	Observation of Optical Band-Gap Narrowing and Enhanced Magnetic Moment in Co-Doped Sol-Gel-Derived Anatase TiO <sub>2</sub> Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 26592-26604.	1.5	49
6	Defect mediated mechanism in undoped, Cu and Zn-doped TiO <sub>2</sub> nanocrystals for tailoring the band gap and magnetic properties. RSC Advances, 2018, 8, 41994-42008.	1.7	47
7	Re-entrant spin glass behaviour and magneto-dielectric effect in insulating Sm <sub>2</sub> NiMnO <sub>6</sub> double perovskite. Journal of Materials Chemistry C, 2013, 1, 6565.	2.7	45
8	Evidence for cluster glass behavior in $\text{Fe}_{1-x}\text{Mn}_x\text{Ti}_2$ alloys. Physical Review B, 2008, 78, 044407.	1.1	41
9	Comparative Study of Magnetic Ordering and Electrical Transport in Bulk and Nano-Grained Nd <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> Manganites. Journal of Magnetism and Magnetic Materials, 2016, 418, 265-272.	1.0	39
10	Structural, optical and magnetic behavior of sol-gel derived Ni-doped dilute magnetic semiconductor TiO <sub>2</sub> nanocrystals for advanced functional applications. Physical Chemistry Chemical Physics, 2019, 21, 2519-2532.	1.3	37
11	Low-temperature electrical transport in Heusler-type Fe <sub>2</sub> V (AlSi) alloys. Journal of Physics Condensed Matter, 2005, 17, 6025-6036.	0.7	35
12	Magnetization reversal behavior and magnetocaloric effect in SmCr <sub>0.85</sub> Mn <sub>0.15</sub> O <sub>3</sub> chromites. Journal of Applied Physics, 2017, 121, 044102.	1.1	34
13	Tailoring Thermoelectric Properties through Structure and Morphology in Chemically Synthesized n-Type Bismuth Telluride Nanostructures. Inorganic Chemistry, 2017, 56, 6264-6274.	1.9	34
14	Observation of enhanced magnetocaloric properties with A-site deficiency in La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> manganite. Dalton Transactions, 2018, 47, 15512-15522.	1.6	34
15	Cinnamomum tamala Leaf Extract Stabilized Zinc Oxide Nanoparticles: A Promising Photocatalyst for Methylene Blue Degradation. Nanomaterials, 2021, 11, 1558.	1.9	34
16	Sol-gel spin coated well adhered MoO <sub>3</sub> thin films as an alternative counter electrode for dye sensitized solar cells. Solid State Sciences, 2016, 61, 84-88.	1.5	32
17	Significant reduction in the optical band-gap and defect assisted magnetic response in Fe-doped anatase TiO <sub>2</sub> nanocrystals as dilute magnetic semiconductors. New Journal of Chemistry, 2019, 43, 6048-6062.	1.4	32
18	Observation of magnetization reversal and magnetocaloric effect in manganese modified EuCrO <sub>3</sub> orthochromites. Physica B: Condensed Matter, 2017, 519, 69-75.	1.3	28

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19	Structural, magnetic, magnetocaloric and specific heat investigations on Mn doped PrCrO <sub>3</sub> orthochromites. Journal of Physics Condensed Matter, 2017, 29, 195802.	0.7	28
20	Comparison of structural, magnetic and electrical transport behavior in bulk and nanocrystalline Nd-lacunar Nd <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> manganites. Journal of Magnetism and Magnetic Materials, 2019, 472, 74-85.	1.0	28
21	Structural, magnetic and dielectric properties of rare earth based double perovskites RE <sub>2</sub> NiMnO <sub>6</sub> (RE=La, pr, Sm, Tb). Physica B: Condensed Matter, 2014, 448, 285-289.	1.3	27
22	Facile hydrothermal synthesis of economically viable VO <sub>2</sub> (M1) counter electrode for dye sensitized solar cells. Materials Research Bulletin, 2016, 83, 135-140.	2.7	27
23	Magnetic properties of biocompatible CoFe <sub>2</sub> Mn <sub>4</sub> O <sub>13</sub> nano-architectures using a facile synthesis. Nano Structures Nano Objects, 2018, 16, 69-76.	2.6	26
24	Co-existence of magnetocaloric effect and magnetoresistance in Co substituted La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> at room temperature. Journal of Applied Physics, 2013, 114, .	1.1	25
25	Investigation on the structural, magnetic and magnetocaloric properties of nanocrystalline Pr-deficient Pr <sub>1-x</sub> Sr <sub>x</sub> MnO <sub>3</sub> manganites. Journal of Magnetism and Magnetic Materials, 2018, 448, 322-331.	1.0	25
26	Low-temperature magnetization behaviors of superparamagnetic MnZn ferrites nanoparticles. Physica B: Condensed Matter, 2020, 582, 411963.	1.3	25
27	Observation of complex magnetic behaviour in calcium doped neodymium manganites. Journal Physics D: Applied Physics, 2017, 50, 065004.	1.3	24
28	Mixed rare earth oxides derived from monazite sand as an inexpensive precursor material for room temperature magnetic refrigeration applications. Materials Research Bulletin, 2017, 94, 537-543.	2.7	24
29	Impression of magnetic clusters, critical behavior and magnetocaloric effect in Fe <sub>3</sub> Al alloys. Physical Chemistry Chemical Physics, 2019, 21, 10823-10833.	1.3	24
30	V <sub>2</sub> O <sub>5</sub> as an inexpensive counter electrode for dye sensitized solar cells. Materials Research Express, 2016, 3, 035501.	0.8	23
31	Structural, electrical, optical and magnetic properties of SmCrO <sub>3</sub> chromites: Influence of Gd and Mn co-doping. Journal of Alloys and Compounds, 2019, 792, 1122-1131.	2.8	21
32	Structural and magnetic properties of Nd <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> manganites with partial replacement of Fe and Cu at Mn-site. Physica B: Condensed Matter, 2018, 539, 14-20.	1.3	20
33	Impact of Mn-dopant concentration in observing narrowing of band-gap, urbach tail and paramagnetism in anatase TiO <sub>2</sub> nanocrystals. New Journal of Chemistry, 2019, 43, 14786-14799.	1.4	20
34	Single step hydrothermal synthesis of mixed valent V <sub>6</sub> O <sub>13</sub> nano-architectures: A case study of the possible applications in electrochemical energy conversion. Journal of Alloys and Compounds, 2017, 706, 562-567.	2.8	19
35	Effects of Mn site substitution on magnetic ordering and critical behavior in Nd <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> manganite. Journal of Physics and Chemistry of Solids, 2018, 123, 327-335.	1.9	19
36	Observation of enhanced magnetic entropy change near room temperature in Sr-site deficient La <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> manganite. RSC Advances, 2019, 9, 23598-23606.	1.7	19

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37	Structural and optical properties of multilayered un-doped and cobalt doped TiO <sub>2</sub> thin films. Applied Surface Science, 2021, 536, 147830.	3.1	18
38	Structure and magnetic properties of ZnO coated MnZn ferrite nanoparticles. Journal of Magnetism and Magnetic Materials, 2016, 418, 112-117.	1.0	17
39	Investigation on structural, morphological and optical properties of Co-doped ZnO thin films. Physica B: Condensed Matter, 2018, 550, 303-310.	1.3	16
40	Surfactant-Induced Structural Phase Transitions and Enhanced Room Temperature Thermoelectric Performance in n-Type Bi <sub>2</sub> Te <sub>3</sub> Nanostructures Synthesized via Chemical Route. ACS Applied Nano Materials, 2018, 1, 3236-3250.	2.4	13
41	Effects of Bi doping on structural and magnetic properties of cobalt ferrite perovskite oxide LaCo <sub>0.5</sub> Fe <sub>0.5</sub> O <sub>3</sub> . Ceramics International, 2022, 48, 16348-16356.	2.3	13
42	Electrical, magnetic, and magnetotransport behavior of inhomogeneous Nd <sub>1-x</sub> CaxMnO <sub>3</sub> (0.0 ≤ x ≤ 0.8) manganites. Journal of Magnetism and Magnetic Materials, 2018, 448, 250-256.	1.0	10
43	Low temperature magnetic and magnetocaloric studies in YCr <sub>0.85</sub> Mn <sub>0.15</sub> O <sub>3</sub> ceramic. Physica B: Condensed Matter, 2018, 545, 352-357.	1.3	10
44	Tailoring the NIR range optical absorption, band-gap narrowing and ferromagnetic response in defect modulated TiO <sub>2</sub> nanocrystals by varying the annealing conditions. Vacuum, 2021, 184, 109955.	1.6	10
45	Observation of magnetization reversal behavior in Sm <sub>0.9</sub> Gd <sub>0.1</sub> Cr <sub>0.85</sub> Mn <sub>0.15</sub> O <sub>3</sub> orthochromites. AIP Advances, 2018, 8, 055818.	0.6	9
46	Impact of Nd and Sr-site deficiencies on the structural, magnetic and electrical transport properties in Nd <sub>0.67-x</sub> Sr <sub>0.33</sub> MnO <sub>3-<math>\delta</math></sub> (x = 0.09, 0.17, 0.25, 0.33) and Nd <sub>0.67</sub> Sr <sub>0.33-y</sub> MnO <sub>3-<math>\delta</math></sub> (y = 0.09, 0.17) manganites. Journal of Magnetism and Magnetic Materials, 2019, 489, 165418.		8
47	Tailoring the magnetic entropy change towards room temperature in Sr-site deficient La <sub>0.6</sub> Dy <sub>0.07</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> manganite. New Journal of Chemistry, 2020, 44, 13480-13487.	1.4	8
48	Evidence for canonical spin glass behaviour in polycrystalline Mn <sub>1.5</sub> Fe <sub>1.5</sub> Al Heusler alloy. Journal of Magnetism and Magnetic Materials, 2022, 546, 168752.	1.0	8
49	Effects of Nd-deficiency in Nd <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> manganites on structural, magnetic and electrical transport properties. Journal of Magnetism and Magnetic Materials, 2022, 542, 168595.	1.0	7
50	Effects of Cr,Co,Ni substitution at Mn-site on structural, magnetic properties and critical behaviour in Nd <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> mixed-valent manganite. Journal of Magnetism and Magnetic Materials, 2022, 548, 168980.	1.0	7
51	The Effect of Cationic Disorder on Low Temperature Magnetic Properties of MnZn Ferrite Nanoparticles. IEEE Transactions on Magnetics, 2015, 51, 1-4.	1.2	6
52	Effect of annealing conditions on particle size, magnetic and optical properties of Gd <sub>2</sub> O <sub>3</sub> nanoparticles. AIP Conference Proceedings, 2019, , .	0.3	6
53	Structural, Electronic, Optical, and Magnetic Properties of Fe <sub>3</sub> Al Alloys. Journal of Superconductivity and Novel Magnetism, 2019, 32, 2995-3000.	0.8	5
54	Evidence for the Enhanced Magnetic Order in In-Substituted Fe <sub>2</sub> Al Heusler-Like Alloy. IEEE Transactions on Magnetics, 2006, 42, 3105-3107.	1.2	3

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55	Optical and Low-Temperature Magnetocaloric Properties of HoCr <sub>0.5</sub> Mn <sub>0.5</sub> O <sub>3</sub> Compound. Journal of Superconductivity and Novel Magnetism, 2022, 35, 625-633.	0.8	3
56	Standardization of media and nutrient concentration for coleus ( <i>Plectranthus barbatus</i> Andr.) under substrate culture. Journal of Plant Nutrition, 2018, 41, 445-452.	0.9	2
57	Evidence for the enhanced magnetic order in In substituted Fe <sub>2</sub> VAl Heusler-like alloy. , 2006, , .		1
58	High field magnetic behavior in Boron doped Fe <sub>2</sub> VAl Heusler alloys. Journal of Magnetism and Magnetic Materials, 2016, 418, 128-136.	1.0	1
59	Effect of annealing temperature on the size and magnetic properties of CoFe <sub>2</sub> O <sub>4</sub> nanoparticle. AIP Conference Proceedings, 2018, , .	0.3	1
60	Structural, Magnetic, and Magneto-Caloric Properties of Cu-Substituted Nd <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> Manganites. Physics of the Solid State, 2020, 62, 902-911.	0.2	1
61	Influence of Ba-Deficient Content on Structural, Magnetic and Magnetocaloric Properties in Nd <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> Mixed-Valent Manganites. Journal of Superconductivity and Novel Magnetism, 2022, 35, 1709-1718.	0.8	1
62	Adiabatic polaron transport in La <sub>0.9</sub> Pb <sub>0.1</sub> MnO <sub>3</sub> manganites. Physica Status Solidi (B): Basic Research, 2004, 241, 1482-1485.	0.7	0
63	Magnetic And Transport Properties Of Fe[sub 2]VB Heusler Alloy: A New Report. AIP Conference Proceedings, 2008, , .	0.3	0
64	The Structure of Electronic States and Optical Properties of Cr <sub>80</sub> Al <sub>20</sub> Compound. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2018, 125, 195-198.	0.2	0
65	Structural and magnetic behavior of (Ni, Cu) substituted Nd <sub>0.67</sub> Sr <sub>0.33</sub> MnO <sub>3</sub> perovskite compounds. AIP Conference Proceedings, 2018, , .	0.3	0
66	Magnetically induced electrical transport and dielectric properties of 3d transition elemental substitution at the Mn-site in Nd <sub>0.67</sub> Ba <sub>0.33</sub> MnO <sub>3</sub> manganites. AIP Conference Proceedings, 2018, , .	0.3	0
67	The Influence of Copper Impurity on the Electronic Structure and Optical Properties of TmNi <sub>5</sub> Compound. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2018, 124, 784-788.	0.2	0