

Sudhish Kumar

List of Publications by Year in descending order

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102
papers

2,086
citations

201674

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265206

42
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108
all docs

108
docs citations

108
times ranked

1803
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Defects and oxygen vacancies tailored structural and optical properties in CeO ₂ nanoparticles doped with Sm ³⁺ cation. Journal of Alloys and Compounds, 2018, 752, 520-531. | 5.5 | 104 |
| 2 | Room temperature ferromagnetism in Mn-doped dilute ZnO semiconductor: An electronic structure study using X-ray photoemission. Journal of Alloys and Compounds, 2009, 477, 379-385. | 5.5 | 100 |
| 3 | Electronic and magnetic properties of Co-doped ZnO diluted magnetic semiconductor. Journal of Alloys and Compounds, 2010, 496, 324-330. | 5.5 | 94 |
| 4 | Role of electronic structure and oxygen defects in driving ferromagnetism in nondoped bulk CeO ₂ . Applied Physics Letters, 2010, 97, . | 3.3 | 86 |
| 5 | Evidence of defect-induced ferromagnetism and its "switch" action in pristine bulk TiO ₂ . Applied Physics Letters, 2011, 98, . | 3.3 | 68 |
| 6 | Influence of Co doping on the structural, optical and magnetic properties of ZnO nanocrystals. Journal of Alloys and Compounds, 2013, 578, 328-335. | 5.5 | 65 |
| 7 | Role of Co doping on structural, optical and magnetic properties of TiO ₂ . Journal of Alloys and Compounds, 2013, 552, 274-278. | 5.5 | 64 |
| 8 | Electronic Structure and Room Temperature Ferromagnetism in Gd-doped Cerium Oxide Nanoparticles for Hydrogen Generation via Photocatalytic Water Splitting. Global Challenges, 2019, 3, 1800090. | 3.6 | 62 |
| 9 | Rietveld refinement, Raman, optical, dielectric, Mössbauer and magnetic characterization of superparamagnetic fcc-CaFe ₂ O ₄ nanoparticles. Ceramics International, 2019, 45, 5837-5847. | 4.8 | 58 |
| 10 | A comprehensive study on the impact of Gd substitution on structural, optical and magnetic properties of ZnO nanocrystals. Journal of Alloys and Compounds, 2021, 868, 159142. | 5.5 | 56 |
| 11 | Structural, optical and magnetic properties of Fe-doped CeO ₂ samples probed using X-ray photoelectron spectroscopy. Journal of Materials Science: Materials in Electronics, 2018, 29, 10141-10153. | 2.2 | 55 |
| 12 | Oxygen vacancies and F+ centre tailored room temperature ferromagnetic properties of CeO ₂ nanoparticles with Pr doping concentrations and annealing in hydrogen environment. Journal of Alloys and Compounds, 2020, 844, 156079. | 5.5 | 48 |
| 13 | Study of defect-induced ferromagnetism in hydrogenated anatase TiO ₂ :Co. Journal of Applied Physics, 2010, 107, . | 2.5 | 46 |
| 14 | A comparative study on the influence of monovalent, divalent and trivalent doping on the structural, optical and photoluminescence properties of Zn _{0.96} Ti _{0.04} O (T: Li+, Ca ²⁺ & Gd ³⁺) nanoparticles. Ceramics International, 2019, 45, 13472-13483. | 4.8 | 46 |
| 15 | Defects and oxygen vacancies tailored structural, optical, photoluminescence and magnetic properties of Li doped ZnO nanohexagons. Ceramics International, 2020, 46, 12296-12317. | 4.8 | 46 |
| 16 | Structural, cation distribution, optical and magnetic properties of quaternary Co _{0.4+x} Zn _{0.6-x} Fe ₂ O ₄ (x = 0.0, 0.1 and 0.2) and Li doped quinary Co _{0.4+x} Zn _{0.5-x} Li _{0.1} Fe ₂ O ₄ (x = 0.0, 0.05 and 0.1) nanoferrites. Journal of Alloys and Compounds, 2020, 828, 154388. | 5.5 | 45 |
| 17 | Defect-induced reversible ferromagnetism in Fe-doped ZnO semiconductor: An electronic structure and magnetization study. Materials Chemistry and Physics, 2010, 123, 678-684. | 4.0 | 44 |
| 18 | Oxygen vacancies mediated cooperative magnetism in ZnO nanocrystals: A d ₀ ferromagnetic case study. Vacuum, 2021, 184, 109921. | 3.5 | 44 |

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|----|--|-----|-----------|
| 19 | A close correlation between induced ferromagnetism and oxygen deficiency in Fe doped In ₂ O ₃ . Applied Surface Science, 2010, 257, 1053-1057. | 6.1 | 40 |
| 20 | Lattice defects and oxygen vacancies formulated ferromagnetic, luminescence, structural properties and band-gap tuning in Nd ³⁺ substituted ZnO nanoparticles. Journal of Luminescence, 2022, 243, 118673. | 3.1 | 39 |
| 21 | Size dependent structural and magnetic behaviour of CaFe ₂ O ₄ . Current Applied Physics, 2013, 13, 830-835. | 2.4 | 38 |
| 22 | Irreversible magnetic behavior with temperature variation of Ni _{0.5} Co _{0.5} Fe ₂ O ₄ nanoparticles. Journal of Magnetism and Magnetic Materials, 2020, 507, 166861. | 2.3 | 38 |
| 23 | Defect-induced reversible ferromagnetism in hydrogenated ZnO:Co. Journal of Magnetism and Magnetic Materials, 2010, 322, 2187-2190. | 2.3 | 31 |
| 24 | Swift heavy ion irradiation induced modifications in magnetic and dielectric properties of Mn ²⁺ /Ca ferrite. Applied Surface Science, 2012, 258, 4207-4211. | 6.1 | 31 |
| 25 | Investigating the mechanism of ferromagnetic exchange interaction in non-doped CeO ₂ with regard to defects and electronic structure. Materials Chemistry and Physics, 2012, 132, 534-539. | 4.0 | 30 |
| 26 | Synthesis, characterization and application of nano-sized titanium dioxide as a photocatalyst for degradation of methylene blue. Journal of Saudi Chemical Society, 2015, 19, 528-536. | 5.2 | 30 |
| 27 | Degradation of Sunset Yellow FCF using copper loaded bentonite and H ₂ O ₂ as photo-Fenton like reagent. Arabian Journal of Chemistry, 2017, 10, S205-S211. | 4.9 | 30 |
| 28 | Structural and magnetic behavior of nanocrystalline Cr doped Co-Mg ferrite. Ceramics International, 2018, 44, 6747-6753. | 4.8 | 30 |
| 29 | Defects and oxygen vacancies tailored structural, optical and electronic structure properties of Co-doped ZnO nanoparticle samples probed using soft X-ray absorption spectroscopy. Vacuum, 2020, 179, 109538. | 3.5 | 28 |
| 30 | Exploration of spectroscopic, surface morphological, structural, electrical, optical and mechanical properties of biocompatible PVA-GO PNCs. Diamond and Related Materials, 2022, 127, 109158. | 3.9 | 24 |
| 31 | On the longevity of H-mediated ferromagnetism in Co doped : A study of electronic and magnetic interplay. Solid State Communications, 2010, 150, 1154-1157. | 1.9 | 23 |
| 32 | Effect of thermal history on structural, microstructural properties and J-E characteristics of CaCu ₃ Ti ₄ O ₁₂ polycrystalline ceramic. Materials Chemistry and Physics, 2018, 212, 343-350. | 4.0 | 23 |
| 33 | Room temperature ferromagnetism in pure and Co- and Fe-doped CeO ₂ dilute magnetic oxide: effect of oxygen vacancies and cation valence. Journal Physics D: Applied Physics, 2011, 44, 165002. | 2.8 | 22 |
| 34 | Magnetic behaviour of alloys in the series (Fe _{1-x} Co _x) ₂ P. Journal of Magnetism and Magnetic Materials, 2001, 237, 135-142. | 2.3 | 21 |
| 35 | Magnetic behaviour of nano-particles of Fe _{2.9} Zn _{0.1} O ₄ . Pramana - Journal of Physics, 2003, 61, 617-624. | 1.8 | 20 |
| 36 | Room temperature ferromagnetism in Mn doped dilute ZnO semiconductor; an electronic structure study. Physica B: Condensed Matter, 2009, 404, 3275-3280. | 2.7 | 20 |

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|----|--|-----|-----------|
| 37 | A Ti L _{3,2} - and K- edge XANES and EXAFS study on Fe ³⁺ - substituted CaCu ₃ Ti ₄ O ₁₂ . <i>Ceramics International</i> , 2018, 44, 20716-20722. | 4.8 | 19 |
| 38 | Exploring the structural, elastic, optical, dielectric and magnetic characteristics of Ca ²⁺ incorporated superparamagnetic Zn _{0.5} ^x Ca _{0.1} Co _{0.4} +xFe ₂ O ₄ (x=0.0, 0.05 & 0.1) nanoferrites. <i>Journal of Alloys and Compounds</i> , 2021, 886, 161190. | 5.5 | 19 |
| 39 | Role of copper pyrovanadate as heterogeneous photo-Fenton like catalyst for the degradation of neutral red and azure-B: An eco-friendly approach. <i>Korean Journal of Chemical Engineering</i> , 2014, 31, 2183-2191. | 2.7 | 17 |
| 40 | Interplay of structural, optical, and magnetic properties of Ce _{1-x} Nd _x O ₂ - $\dot{\gamma}$ nanoparticles with electronic structure probed using X-ray absorption spectroscopy. <i>Vacuum</i> , 2020, 180, 109537. | 3.5 | 17 |
| 41 | Oxygen vacancies and defects induced room temperature ferromagnetic properties of pure and Fe-doped CeO ₂ nanomaterials investigated using X-ray photoelectron spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2022, 254, 147140. | 1.7 | 17 |
| 42 | Magnetic structure of (Fe _{0.97} Cr _{0.03}) ₂ P. <i>Pramana - Journal of Physics</i> , 1999, 52, 111-120. | 1.8 | 15 |
| 43 | Study of electronic structure and magnetization correlations in hydrogenated and vacuum annealed Ni doped ZnO. <i>Journal of Applied Physics</i> , 2011, 109, . | 2.5 | 15 |
| 44 | Low temperature field dependent magnetic study of the Zn _{0.5} Co _{0.5} Fe ₂ O ₄ nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 536, 168102. | 2.3 | 15 |
| 45 | On nature of magnetism in ferromagnetic alloys (Fe _{1-x} Co _x) ₂ P. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 055001. | 2.8 | 13 |
| 46 | Neutron diffraction study on the magnetic structure of (Fe _{0.70} Co _{0.30}) ₂ P. <i>Journal of Alloys and Compounds</i> , 2007, 439, 13-17. | 5.5 | 11 |
| 47 | Influence of ageing on H-induced ferromagnetism in Zn _{1-x} M _x O (M=Co, Fe, Mn). <i>Materials Letters</i> , 2010, 64, 1846-1849. | 2.6 | 11 |
| 48 | First observation of reversible mechanochromism and chromaticity study on calcium-copper-titanate. <i>Journal of the American Ceramic Society</i> , 2019, 102, 6872-6881. | 3.8 | 11 |
| 49 | Kinetics of sonophotocatalytic degradation of an anionic dye nigrosine with doped and undoped zinc oxide. <i>Water Science and Technology</i> , 2019, 80, 1466-1475. | 2.5 | 11 |
| 50 | Green synthesis and characterization of Mg _{0.93} Na _{0.07} O nanoparticles for antimicrobial activity, cytotoxicity and magnetic hyperthermia. <i>Ceramics International</i> , 2022, 48, 28355-28373. | 4.8 | 11 |
| 51 | Structural and magnetic properties of (Fe _{0.93} Ni _{0.07}) ₂ P. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 196217. | 1.8 | 10 |
| 52 | Structural, optical and magnetic properties of MCuSi ₄ O ₁₀ (M=Ba and Sr) blue pigments. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 3716-3724. | 2.2 | 10 |
| 53 | Ca ²⁺ -substitution effect on the defect structural changes in the quadruple perovskite series Ca ₁ Cu ₃ Ti ₄ O ₁₂ studied by positron annihilation and complementary methods. <i>Ceramics International</i> , 2021, 47, 2631-2640. | 4.8 | 10 |
| 54 | Magnetic Structure of (Fe _{0.93} Ni _{0.07}) ₂ P. <i>Physica Status Solidi A</i> , 1999, 175, 693-697. | 1.7 | 9 |

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| 55 | Magnetization enhancement in nanocrystalline $\text{Co}_{0.4}\text{Zn}_{0.6}\text{Fe}_2\text{O}_4$ by 200 Å MeV Ag^{15+} ion irradiation. Radiation Effects and Defects in Solids, 2011, 166, 558-563. | 1.2 | 9 |
| 56 | Synthesis, characterization and magnetism of novel Cobalt- γ -kermanite: $\text{Ca}_2\text{CoSi}_2\text{O}_7$. Physica B: Condensed Matter, 2017, 511, 47-53. | 2.7 | 9 |
| 57 | Impact of hydrogenation on the structural, dielectric and magnetic properties of $\text{La}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$. Applied Physics A: Materials Science and Processing, 2021, 127, 1. | 2.3 | 9 |
| 58 | Effect of Co and O defects on ferromagnetism in Co-doped ZnO: An X-ray absorption spectroscopic investigation. Physica B: Condensed Matter, 2018, 530, 1-6. | 2.7 | 7 |
| 59 | Optical and superparamagnetic behavior of ZnFe_2O_4 nanoparticles. AIP Conference Proceedings, 2018, , . | 0.4 | 7 |
| 60 | Magnetization and neutron diffraction studies on FeCrP. Pramana - Journal of Physics, 2004, 63, 199-205. | 1.8 | 6 |
| 61 | Cation distribution and magnetic ordering evolution study on $\text{Ca}_{1+x}\text{Cu}_3\text{Ti}_4\text{O}_{12}$ ($x = 0.0 \text{ to } 0.2$) perovskites. Solid State Sciences, 2020, 99, 106070. | 3.2 | 6 |
| 62 | Nanoporous carbon doped ceria bismuth oxide solid solution for photocatalytic water splitting. Sustainable Energy and Fuels, 2021, 5, 2545-2562. | 4.9 | 6 |
| 63 | Study of ferromagnetism in Mn doped ZnO dilute semiconductor system. Journal of Physics: Conference Series, 2009, 153, 012065. | 0.4 | 5 |
| 64 | 200 Å MeV Ag^{15+} ion irradiation-induced modifications in structural, magnetic and dielectric properties of nanoparticles of $\text{Cu}_{0.2}\text{Zn}_{0.8}\text{Fe}_2\text{O}_4$ ferrite. Radiation Effects and Defects in Solids, 2013, 168, 537-546. | 1.2 | 5 |
| 65 | Influence of Li doping on structural, electrical, optical and magnetic properties of $\text{Zn}_{0.96}\text{Mn}_{0.04}\text{O}$ nanocrystals. Journal of Materials Science: Materials in Electronics, 2017, 28, 454-462. | 2.2 | 5 |
| 66 | Exploring Magnetic Behaviour in $\text{La}_{0.70}\text{Pr}_{0.30}\text{Mn}_{0.8}\text{Co}_{0.2}\text{O}_3$ Perovskite. Journal of Superconductivity and Novel Magnetism, 2022, 35, 1183-1193. | 1.8 | 5 |
| 67 | Magnetism of $(\text{Fe}_{0.93}\text{Ni}_{0.07})_2\text{P}$ studied using ^{57}Fe Mössbauer spectroscopy. Hyperfine Interactions, 2008, 184, 155-159. | 0.5 | 4 |
| 68 | ROOM TEMPERATURE FERROMAGNETISM IN Mn DOPED ZnO SEMICONDUCTOR. International Journal of Modern Physics B, 2009, 23, 2029-2040. | 2.0 | 4 |
| 69 | Magnetic behaviour of praseodymium substituted perovskites $\text{La}_{1-x}\text{Pr}_x\text{Mn}_{0.8}\text{Co}_{0.2}\text{O}_3$. AIP Conference Proceedings, 2013, , . | 0.4 | 4 |
| 70 | Synthesis, photoluminescence and CIE chromaticity of nanocrystalline $\text{Zn}_{1-x}\text{Ca}_x\text{O}$ ($x=0.02 \text{ to } 0.05$). AIP Conference Proceedings, 2019, , . | 0.4 | 4 |
| 71 | Synthesis, structural, dielectric and peculiar magnetic behaviour of $\text{Pb}_2\text{Mn}_2\text{Si}_2\text{O}_9$. Ceramics International, 2020, 46, 28716-28724. | 4.8 | 4 |
| 72 | Study of structural, optical and electronic structure properties of $\text{Sm}_2\text{O}_3\text{-ZnO}$ nanomaterials. AIP Conference Proceedings, 2020, , . | 0.4 | 4 |

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|----|---|-----|-----------|
| 73 | Synthesis and rietveld refinement of MgO nanoparticles. AIP Conference Proceedings, 2020, , . | 0.4 | 4 |
| 74 | Oxygen vacancy induced structural and domain size-controlled magnetic behavior of La _{0.67} Ca _{0.33} MnO ₃ perovskite. Journal of Materials Science: Materials in Electronics, 2022, 33, 6829-6841. | 2.2 | 4 |
| 75 | Effect of 200ÂMeV Ag ⁺ 15ion irradiation on magnetic and dielectric properties of nanocrystalline Znâ€“Cr ferrite. Radiation Effects and Defects in Solids, 2013, 168, 525-531. | 1.2 | 3 |
| 76 | Influence of sodium substitution on structural and optical properties of Zn _{0.96} Mn _{0.04} O nanocrystals. , 2014, , . | | 3 |
| 77 | Optical and magnetic behaviour of nanocrystalline 5% Ca doped ZnO. AIP Conference Proceedings, 2018, , . | 0.4 | 3 |
| 78 | Optical absorption and photoluminescence study of nanocrystalline Zn _{0.92} M _{0.08} O (M: Li & Gd). AIP Conference Proceedings, 2018, , . | 0.4 | 3 |
| 79 | Study of structural, optical and photoluminescence properties of Zn _{0.93} Mg _{0.07} O nanoparticles. AIP Conference Proceedings, 2020, , . | 0.4 | 3 |
| 80 | Dielectric and superparamagnetic behavior of nanocrystalline CaFe ₂ O ₄ . AIP Conference Proceedings, 2020, , . | 0.4 | 3 |
| 81 | Synthesis and Characterization of Charge-Transfer Complexes of Î-Acceptor TCNQ with Various Phenols. Molecular Crystals and Liquid Crystals, 2007, 469, 99-110. | 0.9 | 2 |
| 82 | Pr Substitution at Y and Ba sites in YBCO (123) System. AIP Conference Proceedings, 2011, , . | 0.4 | 2 |
| 83 | Comment on â€œPreparation of transition metal phosphides using the facile solid state synthesisâ€ Journal of Alloys and Compounds, 2012, 515, 20-21. | 5.5 | 2 |
| 84 | Electronic and magnetic correlations in Mn doped ZnO nano-rods. , 2013, , . | | 2 |
| 85 | Magnetization and XPS study of pristine bulk In[sub 2]O[sub 3]. AIP Conference Proceedings, 2013, , . | 0.4 | 2 |
| 86 | Magnetic and dielectric studies of multiferroic perovskite HoCr _{0.9} Tm _{0.1} O ₃ (TM=Fe and Mn). Materials Research Express, 2019, 6, 056107. | 1.6 | 2 |
| 87 | Defect induced structural and Raman study of Nd-doped CeO ₂ nanomaterials. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 88 | Wasp-waisted like magnetic behavior of nanocrystalline CoFe ₂ O ₄ at 5K. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 89 | Synthesis and optical properties of anatase-TiO ₂ nanoparticles. AIP Conference Proceedings, 2020, , . | 0.4 | 2 |
| 90 | Synthesis, structural, electrical and magnetic characterization of apatite-type lanthanide silicates. Applied Physics A: Materials Science and Processing, 2020, 126, 1. | 2.3 | 2 |

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|-----|--|-----|-----------|
| 91 | Neutron diffraction study on the magnetic structure of (Fe _{0.90} Cr _{0.03} Ni _{0.07}) ₂ P. Journal of Alloys and Compounds, 2006, 426, 51-56. | 5.5 | 1 |
| 92 | Study of room temperature ferromagnetism for cobalt and manganese doped ZnO diluted magnetic semiconductor. Journal of Physics: Conference Series, 2010, 200, 062029. | 0.4 | 1 |
| 93 | Corrigendum to "Defect-induced reversible ferromagnetism in Fe-doped ZnO semiconductor: An electronic structure and magnetization study" [Mater. Chem. Phys. 123 (2010) 678-684]. Materials Chemistry and Physics, 2011, 126, 998. | 4.0 | 1 |
| 94 | Synthesis, Structural and Magnetization Studies of Nanocrystalline Cu _{1-x} Zn _x Fe ₂ O ₄ . , 2011, , . | | 1 |
| 95 | Preparation and Magnetic Studies of Mn Substituted Analogues of BiFeO ₃ . , 2011, , . | | 1 |
| 96 | Influence of annealing on the structural, optical and photoluminescence properties of TiO ₂ nanoparticles. AIP Conference Proceedings, 2020, , . | 0.4 | 1 |
| 97 | Magnetism of (Fe _{0.93} Ni _{0.07}) ₂ P studied using ⁵⁷ Fe Mössbauer spectroscopy. , 2008, , 569-573. | | 0 |
| 98 | Application of Rietveld Method to the Structural Characteristics of some Bulk and Nanocrystalline Materials. , 2011, , . | | 0 |
| 99 | Influence of Co Doping on Structural and Magnetic Properties of Fe ₂ P. Solid State Phenomena, 2011, 171, 93-106. | 0.3 | 0 |
| 100 | Synthesis and size dependent magnetic behaviour of nanocrystalline Cu _{0.2} Ni _{0.8} Fe ₂ O ₄ ferrite. , 2011, , . | | 0 |
| 101 | Structural, optical and magnetic behaviour of nanocrystalline Volborthite. AIP Conference Proceedings, 2016, , . | 0.4 | 0 |
| 102 | Changes in optical behaviour of iron pyritohedron upon microwave treatment. AIP Conference Proceedings, 2016, , . | 0.4 | 0 |