Shri Shivaji Science College, Amravati

Name of The Teaching Faculty:
Dr.P.P.KHIRADE

Department: Physics

Total No of Papers Published: 50
Total No of papers inScopus/ WoS: 42

S. N.	Title of paper	Name of the author/s	Department	Journal	Details	Year	ISSN	Scopus/WoS	Link
1	Multiferroic iron doped $BaTiO_3$ nanoceramics synthesized by sol-gel auto combustion: Influence of iron on physical properties	P. P. Khirade et al.	Physics	Ceramics International	42, 12441 – 12451	2016	0272-8842	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en
2	Room temperature ferromagnetism and photoluminescence of multifunctional Fe doped $BaZrO_3$ nanoceramics	P. P. Khirade et al.	Physics	Journal of Alloys and Compounds	691, 287–298	2017	0925-8388	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en
3	Effect of Fe–substitution on phase transformation, optical, electrical and dielectrical properties of $BaTiO_3$ nanoceramics synthesized by sol-gel auto combustion method	P. P. Khirade et al.	Physics	Journal of Electroceramics	37, 110–120	2016	1573-8663	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en
4	Structural, electrical and dielectrical property investigations of Fe-doped $BaZrO_3$ nanoceramics	P. P. Khirade et al.	Physics	Journal of Electronic Materials	45, 3227–3235	2016	0361-5235	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en

5	Investigations on the synthesis, structural and microstructural characterizations of $Ba_{1-x}Sr_xZrO_3$ nanoceramics	P. P. Khirade et al.	Physics	Ferroelectrics	504, 1–14	2016	1563-5112	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en
6	Structural, microstructural and magnetic properties of sol-gel synthesized novel $BaZrO_3 – CoFe_2O_4$ nanocomposite	P. P. Khirade	Physics	Journal of Nanostructure in Chemistry	9, 163–173	2019	2008-9244	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en
7	Synthesis, structural, morphological, optical and magnetic properties of Zn1-xCoxO ($0 \leq x \leq 0.36$) nanoparticles synthesized by sol-gel auto combustion method	S. D. Birajdar et al.	Physics	Journal of Alloys and Compounds	683, 513–526	2016	0925-8388	Yes	https://scholar.google.com/citations?user=0sg6iBAAAAAJ&hl=en
8	Sol-gel auto combustion synthesis, electrical and dielectric properties of Zn1-xCoxO(0.0 -x -0.36) semiconductor nanoparticles	S. D. Birajdar et al.	Physics	Journal of Alloys and Compounds	691, 355–363	2017	0925-8388	Yes	
9	Presence of intrinsic defects and transition from diamagnetic to ferromagnetic state in Co2+ ions doped ZnO nanoparticles	S. D. Birajdar et al.	Physics	J Mater Sci Mater Electron	27, 5575–5583	2016	1573-482X	Yes	
10	Structural, microstructural and magnetic studies on magnesium (Mg2+)-substituted CoFe2O4 nanoparticles	V. Vinayak et al.	Physics	J Supercond Nov Magn	29, 1025–1032	2016	1557-1947	Yes	
11	Structural, magnetic and dielectrical properties of Al-Cr co-substituted M-type barium hexaferrite nanoparticles	R. C. Alange et al.	Physics	Journal of Molecular Structure	1106, 460–467	2016	0022-2860	Yes	
12	Electrical and dielectrical properties of low-temperature-synthesized nanocrystalline Mg2+-	V. Vinayak et al.	Physics	J Supercond Nov Magn	28, 3351–3356	2015	1557-1947	Yes	

	substituted cobalt spinel ferrite								
13	Influence of Al–Cr co-substitution on physical properties of strontium hexaferrite nanoparticles synthesized by sol–gel auto combustion method	R. C. Alange et al.	Physics	J Mater Sci Mater Electron	28, 407–417	2017	1573-482X	Yes	
14	Structural, Electrical, Dielectric and Magnetic Properties of Al3+ Substituted Ni-Zn Ferrite	A. V. Raut et al.	Physics	J Supercond Nov Magn	29, 1331–1337	2016	1557-1947	Yes	
15	Effect of iron oxide (Fe2O3) on the structural, optical, electrical and dielectric properties of SrO-V2O5 glasses	D. B. Sable et al.	Physics	Glass Physics and Chemistry	302–312	2017	1087-6596	Yes	
16	Structural, Microstructural, Magnetic, and Ferroelectric Properties of Ba2+-Doped BiFeO3 Nanocrystalline Multifferroic Material	M. V. Shisode et al.	Physics	J Supercond Nov Magn	31, 2501–2509	2018		Yes	
17	Temperature dependent viscosity of cobalt ferrite/ethylene glycol ferrofluids	P. B. Kharat et al.	Physics	AIP Conference Proceedings	1942, 050044	2018	1551-7616	Yes	
18	Hyperthermic evaluation of oleic acid coated nano-spinel magnesium ferrite: enhancement via hydrophobic-to-hydrophilic surface transformation	S. B. Somvanshi et al.	Physics	Journal of Alloys and Compounds	835, 155422	2020	0925-8388	Yes	
19	Doping Effect of Fe Ions on the Structural, Electrical, and Magnetic Properties of SrTiO3 Nanoceramic Matrix	D. N. Bhoyar et al.	Physics	J Supercond Nov Magn	32, 1395–1406	2019		Yes	
20	Rietveld refinement and electrical properties of LiTiFeO4	J. S. Kounsalye et al.	Physics	AIP Conference Proceedings	1832, 050123	2017		Yes	
21	Influence of Trivalent Cr ion Substitution on Physicochemical, Optical, Electrical and Dielectric Parameters of Sprayed NiFe2O4 Spinel-Magnetic Thin Films	A. R. Chavan et al.	Physics	RSC Advances	10, 25143 - 25154	2020	2046-2069	Yes	
22	Induction Heating Analysis of Surface-	P. B.	Physic	ACS	5,	202	2470-	Yes	

	Functionalized Nanoscale CoFe2O4 for Magnetic Fluid Hyperthermia toward Noninvasive Cancer Treatment	Kharat et al.	s	Omega	23378 - 23384	0	1343		
23	Sol–gel auto-ignition fabrication of Gd3+ incorporated Ni0.5Co0.5Fe2O4 multifunctional spinel ferrite nanocrystals and its impact on structural, optical and magnetic properties	D. B. Pawar et al.	Physics	SN Applied Sciences	2, 1-12	2020	2523-3971	Yes	
24	Enhanced solar-cell efficiency via fabricated zinc sulfide nanocrystalline thin film-based Schottky diodes as a bypass: An experimental and theoretical investigations	S. V. Mukhamale et al.	Physics	Solar Energy	211, 866-878	2020	0038-092X	Yes	
25	Green Synthesis of Ba1−xSrxTiO3 ceramic nanopowders by sol-gel combustion method using lemon juice as a fuel: Tailoring of Microstructure, ferroelectric, dielectric and electrical properties	P. P. Khirade et al.	Physics	Optical Materials	111, 110664	2021	1873-1252	Yes	
26	Tuning of physical properties of multifunctional Mg-Zn spinel ferrite nanocrystals: A comparative investigations manufactured via conventional ceramic versus green approach sol-gel combustion route	P. P. Khirade et al.	Physics	Materials Research Express	7, 116102	2020	2158-5849	Yes	
27	Eco-friendly green synthesis and characterizations of CoFe2-xAlxO4 nanocrystals: analysis of structural, magnetic, electrical, and dielectric properties	A. R. Chavan et al.	Physics	Journal of Nanostructure in Chemistry	11, 469–481	2021	2193-8865	Yes	
28	Gamma radiation shielding characteristics of various spinel ferrite nanocrystals: a combined experimental and	R. M. Lokhande et al.	Physics	RSC Advances	11, 7925-7937	2021		Yes	

	theoretical investigation								
29	Structural, electrical and dielectric investigations of cerium doped barium zirconate (BaZrO3) nano-ceramics produced via green synthesis: Probable candidate for solid oxide fuel cells and microwave applications	P. P. Khirade et al.	Physics	Physica B	613, 412948	2021		Yes	
30	50 kGy–100 kGy 60 Co γ-irradiation effects on structural and DC-electrical properties of sol–gel synthesized ZnF NPs	A. V. Raut et al.	Physics	J Mater Sci Mater Electron	32, 11017 - 11027	2021		Yes	
31	Diverse physical characteristics of mixed Li–Mg spinel ferrite thin films fabricated by spray pyrolysis technique	A. R. Chavan et al.	Physics	Physica B	413075	2021		Yes	
32	Structural, Optical and Magnetic Properties of Diamagnetic Cd2+Incorporated Cobalt Ferrite Thin Films Deposited by Spray Pyrolysis	G. L. Jadhav et al.	Physics	Journal of Electronic Materials	50, 6525–6534	2022	0361-5235	Yes	
33	Structural, morphological, and electrical investigation of 50 Mrad c-radiated Ni1-xCdxFe2O4 nanoparticles	M. R. Patil et al.	Physics	Materials Today Proceedings		2022		Yes	
34	Solvent-free synthesis of 1, 4 dihydropyridines derivatives via Hantzsch reaction employing MgFe2O4 MNPs: An efficient and recyclable heterogeneous catalyst	—	Physics	J Inorg Organomet Polym Mater	34, 1104–1120	2024	1574-1451	Yes	
35	Fabrication of Ferrite Core Inductors Utilizing Sol-Gel-Produced La3+ Doped CoFe2O4 Nanomaterials	Jiskar et al.	Physics	Journal of Electronic Materials	53, 4477-4483	2024	1543-186X	Yes	
36	Structural, microstructural and optical characteristics of rGO-ZnO nanocomposites via hydrothermal approach	Rajguru et al.	Physics	Optical Materials	154, 115720	2024	1873-1252	Yes	
37	Experimental, theoretical and numerical simulation-based	Mukhamale et al.	Physics	Scientific Reports	14, 15970	2024	2045-2322	Yes	

	investigations on the fabricated Cu2ZnSn thin-film-based Schottky diodes with enhanced electron transport for solar cell								
38	Enhanced Gas Sensing Characteristics of rGO-TiO□ Nanocomposites: Synthesis, Structural, Optical Characterization and Sensitivity Analysis for Environmental Monitoring	Rajguru et al.	Physics	Ceramics International		2025		Yes	
39	Enhanced γ-radiation shielding characteristics of some emergent perovskite titanate nanoceramics: A comprehensive study of structural characteristics and radiation attenuation mechanisms	Khirade et al.	Physics	Radiation Physics and Chemistry	232, 112657	2025		Yes	
40	Effect of Zr4+ dopants on micro-structural and antibacterial characteristics of CuFe2O4 nanoparticles produced via sol-gel auto combustion	Chavan et al.	Physics	Journal of Sol-Gel Science and Technology		2025		Yes	
41	Facile synthesis of graphene oxide via equivalent Hummers' method: Comprehensive characterizations and analysis	Nikam et al.	Physics	Next Materials	7, 100626	2025		Yes	
42	Gamma Radiation Shielding Characteristics of Some Nitrides: A Monte-Carlo Simulation Study	Lokhande et al.	Physics	Radiation Effects and Defects in Solids		2026		Yes	