Recent Publications:

S. No.	Author(s)	Year	Title	Complete Reference of Journal
1.	Aradhana Tiwari, P. P. Sahay	2023	Cation-cation co-doped ZnO thin films for transparent conductive oxide applications	Materials Today: Proceedings DOI: 10.1016/j.matpr.2023.08.372
2.	Aradhana Tiwari, P. P. Sahay	2023	Improved transparent conductive properties of highly *c*-axis oriented ZnO thin films upon (Ga, Mg) co-doping	Micro and Nanostructures, Vol. 181, pp. 207617 (14 pages). DOI: 10.1016/j.micrna.2023.207617 [I.F.: 3.1]
3.	Nikita Sharma, P. P. Sahay	2023	Effect of (Ce, Dy) co-doping on the microstructural, optical, and photoluminescence characteristics of solution combustion synthesized ZnO nanoparticles	Luminescence, Vol. 38, pp. 196-207. DOI: 10.1002/bio.4441 [I.F.: 2.9
4.	Nikita Sharma, P. P. Sahay	2023	Solution combustion synthesized Y_2O_3 nanoparticles and influence of Dy doping on their microstructural, optical and photoluminescence characteristics	Journal of the Chinese Journal of the Chinese Chemical Society, Vol. 70, pp. 58-67. DOI: 10.1002/jccs.202200382 [I.F.: 1.8]
5.	Nikita Sharma, P. P. Sahay	2023	Solution combustion synthesis of Dy-doped ZnO nanoparticles: An investigation of their structural, optical and photoluminescence characteristics	Journal of Luminescence, Vol. 257, pp. 119655 (8 pages). DOI: 10.1016/j.jlumin.2022.119655 [I.F.: 3.6]
6.	Aradhana Tiwari, P. P. Sahay	2022	Highly *c*-axis oriented (Mg, Sn) co-doped ZnO thin films for optoelectronic applications	Optical Materials, Vol. 134, pp. 113098 (9 pages). DOI: 0.1016/j.optmat.2022.113098 [I.F.: 3.9]
7.	Aradhana Tiwari, P. P. Sahay	2022	Impact of Heterovalent Cations (Ga, Co) Co-doping on the Physical Properties of ZnO Films for Optoelectronic Applications	Brazilian Journal of Physics, Vol. 52, pp. 176 (13 pages) DOI: 10.1007/s13538-022-01175-8 [I.F.: 1.6]
8.	Aradhana Tiwari, P. P. Sahay	2022	Structural and optical behavior of gallium and cobalt co-doped ZnO thin films fabricated by a sol-gel spin coating technique	Materials Today: Proceedings Vol. 68, pp. 187-189. DOI: 10.1016/j.matpr.2022.07.261
9.	Anil Kumar, P. P. Sahay	2022	Precursor-Dependent Spray-Pyrolyzed Co_3O_4 Thin Films: Comparative Results on Their Structural, Optical, and Electrical Properties	Brazilian Journal of Physics, Vol. 52, pp. 101 (8 pages). DOI: 10.1007/s13538-022-01108-5 [I.F.: 1.6]

10.	Aradhana Tiwari, P. P. Sahay	2022	Modification in the physical properties of nanocrystalline ZnO thin films by Sn/Ni co-doping for transparent conductive oxide applications	Physica B, Vol. 629, pp. 413638 (10 pages). DOI: 10.1016/j.physb.2021.413638 [I.F.: 2.988]
11.	Anil Kumar, P. P. Sahay	2021	Lithium doping in spray-pyrolyzed NiO thin films: Results on their microstructural, optical and electrochromic properties	Applied Physics A, Vol. 127, pp. 286 (17 pages). DOI: 10.1007/s00339-021-04436-6 [I.F.: 2.983]
12.	P. P. Sahay	2021	Galvanostatically deposited Co_3O_4–NiO nanocomposite thin films onto FTO glass substrates: An investigation of their microstructural and supercapacitive properties	Journal of Alloys and Compounds, Vol. 867, pp. 159022 (9 pages). DOI: 10.1016/j.jallcom.2021.159022 [I.F.: 6.371]
13.	Aradhana Tiwari, P. P. Sahay	2020	The effects of Sn–In co-doping on the structural, optical, photoluminescence and electrical characteristics of the sol-gel processed ZnO thin films	Optical Materials, Vol. 110, pp. 110395 (9 pages). DOI: 10. 1016/ j. optmat. 2020. 110395 [I.F.: 3.754]
14.	Aradhana Tiwari, P. P. Sahay	2020	Sn-Ga co-doping in sol-gel derived ZnO thin films: studies of their microstructural, optical, luminescence and electrical properties	Materials Science in Semiconductor Processing, Vol. 118, pp. 105178 (9 pages). DOI: 10.1016/j.mssp.2020.105178 [I.F.: 4.644]
15.	Anil Kumar, P. P. Sahay	2020	Influence of Ti doping on the microstructural and electrochromic properties of dip-coated nanocrystalline V_2O_5 thin films	Journal of Sol-Gel Science and Technology, Vol. 95, pp. 34-51. DOI: 10.1007/s10971-020-05298-9 [I.F.: 2.606]
16.	Rajesh K. Mishra, Rohit R. Shahi, Amit Raj Singh, P. P. Sahay	2020	Synthesis, characterizations, and magnetic properties of FeCoNiTi-based high-entropy alloys	Emergent Materials, Vol. 3, pp. 655-662. DOI: 10.1007/s42247-020-00110-4 :
17.	Anil Kumar, P. P. Sahay	2019	Microstructural, optical and electrochromical properties of W-doped Nb_2O_5 thin films prepared by dip-coating process using sols obtained by the chloroalkoxide route	Journal of Materials Science: Materials in Electronics, Vol. 30, pp.17999–18014. DOI: 10.1007/s10854-019-02153-8 [I.F.: 2.779]
18.	Anil Kumar, Chandra Shekhar Prajapati, P. P. Sahay	2019	Results on the microstructural, optical and electrochromic properties of spray-deposited MoO_3 thin films by the influence of W doping	Materials Science in Semiconductor Processing Vol. 104, 104668 (12 pages). DOI: 10.1016/j.mssp.2019.104668 [I.F.: 4.644]

19.	Anil Kumar, Chandra Shekhar Prajapati, P. P. Sahay	2019	Modification in the microstructural and electrochromic properties of spray-pyrolysed WO_3 thin films upon Mo doping	Journal of Sol-Gel Science and Technology, Vol. 90, pp. 281-295. DOI: 10.1007/s10971-019-04960-1 [I.F.: 2.606]
20.	Rajesh K. Mishra, P. P. Sahay, Rohit R. Shahi	2019	Alloying, magnetic and corrosion behavior of AlCrFeMnNiTi high entropy alloy	Journal of Materials Science, Vol. 54, pp. 4433-4443. DOI: 10.1007/s10853-018-3153-z {I.F.: 4.682]
21.	Rajesh Kumar Mishra, Chandra Shekhar Prajapati, P.P. Sahay	2018	Supercapacitive performance of electrochemically synthesized nanocrystalline MnO_2 films using different plating solutions: A comparative study	Journal of Alloys and Compounds, Vol. 749, pp. 172-179. DOI: 10.1016/j.jallcom.2018.03.271 [I.F.: 6.371]
22.	R.K. Mishra, C.S. Prajapati, R.R. Shahi, A.K. Kushwaha, P.P. Sahay	2018	Influence of electrodeposition modes on the electrochemical performance of MnO_2 films prepared using anionic MnO_4^- (Mn^{7+}) precursor	Ceramics International, Vol. 44, pp. 5710–5718. DOI: 10.1016/j.ceramint.2017.12.224 [I.F.: 5.532]
23.	P.P. Sahay	2017	Multifunctional metal oxide nanomaterials for chemical gas sensing	Procedia Engineering, Vol. 215, pp. 145-151. DOI: 10.1016/j.proeng.2017.11.003 [I.F.: 0.783]
24.	Rajneesh Kumar Mishra, G. Murali, Tae-Hyung Kim, Jee Hun Kim, Young Jin Lim, Byoung-Suhk Kim, P. P. Sahay, SeungHee Lee	2017	Nanocube In_2O_3@RGO heterostructure based gas sensor for acetone and formaldehyde detection	RSC Advances, Vol. 7, pp. 38714-38724. DOI: 10.1039/c7ra05685k [I.F.: 4.036]
25.	P.P. Sahay, Ajay Kumar Kushwaha	2017	Electrochemical supercapacitive performance of potentiostatically cathodic electrodeposited nanostructured MnO_2 films	Journal of Solid State Electrochemistry, Vol. 21, pp. 2393-2405. DOI: 10.1007/s10008-017-3574-7 [I.F.: 2.747]
26.	S.B. Upadhyay, R.K. Mishra, P.P. Sahay	2016	Cr-doped WO_3 nanosheets: structural, optical and formaldehyde sensing properties	Ceramics International, Vol. 42, pp. 15301-15310. DOI: 10.1016/j.ceramint.2016.06.170 [I.F.: 5.532]
27.	Ramnayan Mukherjee, P.P. Sahay	2016	Improved electrochromic performance in sprayed WO3 thin films upon Sb doping	Journal of Alloys and Compounds, Vol. 660, pp. 336-341. DOI: 10.1016/j.jallcom.2015.11.138 [I.F.: 6.371]

28.	S.B. Upadhyay, P.P. Sahay	2015	Structure, optical and formaldehyde sensing properties of co-precipitated Fe-doped WO_3 nanomaterials	NANO: Brief Reports and Reviews, Vol. 10, pp. 1550113 (12 pages) DOI: 10.1142/S1793292015501131 [I.F.: 1.438]
29.	R. K. Mishra, S. B. Upadhyay, Ajay Kushwaha, Tae-Hyung Kim, G. Murali, Ranjana Verma, Manish Srivastava, Jay Singh, P. P. Sahay, SeungHee Lee	2015	SnO_2 quantum dots decorated on RGO: a superior sensitive, selective and reproducible performance for a H_2 and LPG sensor	Nanoscale, Vol. 209, pp. 368-376. DOI: 10.1039/c5nr02837j [I.F.: 8.307]
30.	Ramnayan Mukherjee, P.P. Sahay	2015	Effect of precursors on the microstructural, optical, electrical and electrochromic properties of WO_3 nanocrystalline thin films	Journal of Materials Science: Materials in Electronics, Vol. 26, pp. 6293-6305. DOI: 10.1007/s10854-015-3216-8 [I.F.: 2.779]
31.	Ramnayan Mukherjee, P.P. Sahay	2015	Structural, morphological, optical and electrical properties of spray-deposited Sb-doped WO3 nanocrystalline thin films prepared using ammonium tungstate precursor	Journal of Materials Science: Materials in Electronics, Vol. 26, pp. 2697-2708. DOI: 10.1007/s10854-015-2745-5 [I.F.: 2.779]
32.	S.B. Upadhyay, R.K. Mishra, P.P. Sahay	2015	Enhanced acetone response in co-precipitated WO_3 nanostructures upon indium doping	Sensors and Actuators B-Chemical, Vol. 209, pp. 368-376. DOI:10.1016/j.snb.2014.11.138 [I.F.: 9.221]
33.	R. K. Mishra, Ajay Kushwaha, P.P. Sahay	2015	Cr induced modifications in the structural, photoluminescence and acetone sensing behaviour of hydrothermally synthesized SnO_2 nanoparticles	Journal of Experimental Nanoscience, Vol. 10, pp. 1042-1056. DOI: 10.1080/17458080.2014.952685. [I.F.: 2.024]
34.	Ramnayan Mukherjee, C.S. Prajapati, P.P. Sahay	2014	Tin-incorporation induced changes in the microstructural, optical and electrical behaviour of tungsten oxide nanocrystalline thin films grown via spray pyrolysis	Journal of Thermal Spray Technology, Vol. 23, pp. 1445-1455. DOI: 10.1007/s11666-014-0134-x [I.F.: 2.839]
35.	Ramnayan Mukherjee, C.S. Prajapati, P.P. Sahay	2014	Tailoring the microstructural, optical and electrical properties of nanocrystalline WO_3 thin films using Al doping	Journal of Materials Engineering and Performance, Vol. 23, pp. 3141-3151. DOI: 10.1007/s11665-014-1094-5

				[I.F.: 2.036]
36.	R. K. Mishra, Ajay Kushwaha, P.P. Sahay	2014	Influence of Cu doping on the structural, photoluminescence and formaldehyde sensing properties of SnO_2 nanoparticles	RSC Advances, Vol. 4, pp. 3904-3912. DOI:10.1039/C3RA43709D [I.F.: 4.036]
37.	S.B. Upadhyay, R.K. Mishra, P.P. Sahay	2014	Structural and alcohol response characteristics of Sn-doped WO_3 nanosheets	Sensors and Actuators B-Chemical, Vol. 193, pp. 19-27. DOI: 10.1016/j.snb.2013.11.049 [I.F.: 9.221]
38.	Ramnayan Mukherjee, Ajay Kushwaha, P.P. Sahay	2014	Spray-deposited nanocrystalline WO_3 thin films prepared using tungsten hexachloride dissolved in N-N dimethylformamide and influence of In doping on their structural, optical and electrical properties	Electronic Materials Letters, Vol. 10, pp. 401-410. DOI: 10.1007/s13391-013-3221-0 [I.F.: 3.151]
39.	K.K. Verma, R. K. Sinha, P. P. Sahay	2013	Structural, optical and ethanol gas-sensing properties of zinc oxide thin film prepared by spray pyrolysis technique using ultrasonic nebuliser	Indian Journal of Pure & Applied Physics, Vol. 51, pp. 765-768. [I.F.: 0.923]
40.	R.K. Mishra, S.B. Upadhyay, P.P. Sahay	2013	Volatile organic compounds (VOCs) response characteristics of the hydrothermally synthesized SnO_2 nanocapsules	Sensor Letters, Vol. 11, pp. 1611-1616. DOI:10.1166/sl.2013.3020
41.	C. S.Prajapati, Ajay Kushwaha, P. P. Sahay	2013	Experimental investigation of spray-deposited Fe-doped ZnO nanoparticle thin films: Structural, microstructural and optical properties	Journal of Thermal Spray Technology, Vol. 22, pp. 1230-1241. DOI: 10.1007/s11666-013-9973-0 [I.F.: 2.839]
42.	C. S.Prajapati, Ajay Kushwaha, P. P. Sahay	2013	Effect of Al dopants on the structural, optical and gas sensing properties of spray-deposited ZnO thin films	Materials Chemistry and Physics, Vol. 142, pp. 276-285. DOI:10.1016/j.matchemphys.2013.07.015 [I.F.: 4.778]
43.	R. K. Mishra, Shiv K. Pandey, P. P. Sahay	2013	Influence of In doping on the structural, photo-luminescence and alcohol response characteristics of the SnO2 nano particles	Materials Research Bulletin, Vol. 48, pp. 4196-4205. DOI:10.1016/j.materresbull.2013.06.071 [I.F.: 5.6]
44.	N. G. Pramod, S. N. Pandey, P.P. Sahay	2013	Sn-doped In_2O_3 nanocrystalline thin films deposited by spray pyrolysis: microstructural, optical, electrical and formaldehyde sensing characteristics	Journal of Thermal Spray Technology, Vol. 22, pp. 1035-1043. DOI: 10.1007/s11666-013-9933-8 [I.F.: 2.839]

45.	C.S. Prajapati, Ajay Kushwaha, P.P. Sahay	2013	Influence of Fe doping on the structural, optical and acetone sensing properties of sprayed ZnO thin films	Materials Research Bulletin, Vol. 48, pp. 2687-2695. DOI: 10.1016/j.materresbull.2013.03.026 [I.F.: 5.6]
46.	C.S. Prajapati, Ajay Kushwaha, P.P. Sahay	2013	Optoelectronics and formaldehyde sensing properties of tin-doped ZnO thin films	Applied Physics A, Vol. 113, pp. 651-662. DOI: 10.1007/s00339-013-7589-3 [I.F.: 2.983]
47.	C.S. Prajapati, P.P. Sahay	2013	Influence of In doping on the structural, optical and acetone sensing properties of ZnO nanoparticulate thin films	Materials Science in Semiconductor Processing, Vol. 16, pp. 200-210. DOI:10.1016/j.mssp.2012.04.015 [I.F.: 4.644]
48.	P.P. Sahay, R.K. Mishra, S.N. Pandey, S. Jha, M. Shamsuddin	2013	Structural, dielectric and photoluminescence properties of co-precipitated Zn-doped SnO_2 nanoparticles	Current Applied Physics, Vol. 13, pp. 479-486. DOI: 10.1016/j.cap.2012.09.010 [I.F.: 2.856]