

Satyabrata Mohapatra

List of Publications by Year in descending order

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119
papers

4,025
citations

94269

37
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133063

59
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121
all docs

121
docs citations

121
times ranked

7513
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced photocatalytic activity of Co doped ZnO nanodisks and nanorods prepared by a facile wet chemical method. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 12741.	1.3	301
2	Highly efficient photocatalytic degradation of organic dyes by Cu doped ZnO nanostructures. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25172-25181.	1.3	176
3	Au@ZnO: A tunable localized surface plasmonic nanocomposite. <i>Applied Physics Letters</i> , 2008, 92, 043107.	1.5	153
4	Facile synthesis of Ag@ZnO hybrid nanospindles for highly efficient photocatalytic degradation of methyl orange. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 17560.	1.3	144
5	Synthesis and characterization of Ag nanoparticles in silica matrix by atom beam sputtering. <i>Scripta Materialia</i> , 2007, 56, 629-632.	2.6	124
6	Nanostructured TiO ₂ thin films prepared by RF magnetron sputtering for photocatalytic applications. <i>Applied Surface Science</i> , 2017, 422, 953-961.	3.1	123
7	Crystal growth behaviour in Au-ZnO nanocomposite under different annealing environments and photoswitchability. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	117
8	Enhanced photocatalytic activity of Ag@ZnO hybrid plasmonic nanostructures prepared by a facile wet chemical method. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 639-650.	1.5	99
9	Structural, optical and photocatalytic properties of flower-like ZnO nanostructures prepared by a facile wet chemical method. <i>Beilstein Journal of Nanotechnology</i> , 2013, 4, 763-770.	1.5	88
10	Synthesis of gold-silicon core-shell nanoparticles with tunable localized surface plasmon resonance. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	87
11	Rapid green synthesis of silver nanoparticles and nanorods using Piper nigrum extract. <i>Journal of Alloys and Compounds</i> , 2015, 637, 119-126.	2.8	86
12	Atom beam sputtered Ag-TiO ₂ plasmonic nanocomposite thin films for photocatalytic applications. <i>Applied Surface Science</i> , 2017, 411, 347-354.	3.1	82
13	Facile synthesis of Au-ZnO plasmonic nano hybrids for highly efficient photocatalytic degradation of methylene blue. <i>Optical Materials</i> , 2017, 64, 47-52.	1.7	77
14	Formation of Self-organized Silver Nanocup-Type Structures and Their Plasmonic Absorption. <i>Plasmonics</i> , 2013, 8, 811-815.	1.8	75
15	Facile synthesis of ZnO nanoplates and nanoparticle aggregates for highly efficient photocatalytic degradation of organic dyes. <i>Journal of Physics and Chemistry of Solids</i> , 2018, 121, 186-195.	1.9	69
16	Effects of swift heavy ion irradiation on structural, optical and photocatalytic properties of ZnO@CuO nanocomposites prepared by carbothermal evaporation method. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 928-937.	1.5	67
17	Structural, Optical and Plasmonic Properties of Ag-TiO ₂ Hybrid Plasmonic Nanostructures with Enhanced Photocatalytic Activity. <i>Plasmonics</i> , 2017, 12, 877-888.	1.8	65
18	Performance of the ATLAS muon trigger in pp collisions at $\sqrt{s}=8$ TeV. <i>European Physical Journal C</i> , 2015, 75, 120.	1.4	62

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19	Two-dimensional CuO-ZnO nano hybrids with enhanced photocatalytic performance for removal of pollutants. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 137, 109223.	1.9	61
20	Gold-silica nanocomposites for the detection of human ovarian cancer cells: a preliminary study. <i>Nanotechnology</i> , 2007, 18, 345606.	1.3	59
21	Thermal evolution of morphological, structural, optical and photocatalytic properties of CuO thin films. <i>Nano Structures Nano Objects</i> , 2019, 17, 92-102.	1.9	58
22	Template-free and surfactant-free synthesis of CeO ₂ nanodiscs with enhanced photocatalytic activity. <i>Applied Surface Science</i> , 2020, 503, 144102.	3.1	57
23	Catalytic reduction of 4-nitrophenol and photocatalytic degradation of organic pollutants in water by copper oxide nanosheets. <i>Optical Materials</i> , 2019, 93, 58-69.	1.7	54
24	Enhanced CO gas sensing properties of Cu doped SnO ₂ nanostructures prepared by a facile wet chemical method. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 18846-18854.	1.3	52
25	Synthesis and Characterization of Ag-Polymer Nanocomposites. <i>Journal of Nanoscience and Nanotechnology</i> , 2010, 10, 2833-2837.	0.9	47
26	Enhanced near infrared luminescence in Ag@Ag ₂ S core-shell nanoparticles. <i>Applied Surface Science</i> , 2019, 463, 573-580.	3.1	44
27	Tunable surface plasmon resonance of silver nanoclusters in ion exchanged soda lime glass. <i>Journal of Alloys and Compounds</i> , 2014, 598, 11-15.	2.8	43
28	Synthesis of Ag-TiO ₂ hybrid nanoparticles with enhanced photocatalytic activity by a facile wet chemical method. <i>Nano Structures Nano Objects</i> , 2019, 18, 100266.	1.9	43
29	Synthesis and characterizations of silver-fullerene C ₇₀ nanocomposite. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	42
30	Facile synthesis, structural and optical properties of Au-TiO ₂ plasmonic nano hybrids for photocatalytic applications. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 135, 109100.	1.9	42
31	Swift heavy ion induced modifications of optical and microstructural properties of silver-fullerene C ₆₀ nanocomposite. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009, 267, 1349-1352.	0.6	41
32	Microwave-assisted synthesis of Fe ₂ O ₃ /ZnFe ₂ O ₄ /ZnO ternary hybrid nanostructures for photocatalytic applications. <i>Ceramics International</i> , 2021, 47, 3833-3841.	2.3	41
33	Facile wet chemical synthesis of ZnO nanosheets: Effects of counter ions on the morphological, structural, optical and photocatalytic properties. <i>Ceramics International</i> , 2018, 44, 23094-23101.	2.3	40
34	Plasmon-enhanced photoluminescence from SnO ₂ nanostructures decorated with Au nanoparticles. <i>Applied Surface Science</i> , 2020, 504, 144381.	3.1	40
35	Linear and nonlinear optical absorption in copper nanocluster-glass composites. <i>Materials Letters</i> , 2007, 61, 4512-4515.	1.3	39
36	Current status on designing of dual Z-scheme photocatalysts for energy and environmental applications. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 106, 340-355.	2.9	39

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37	Synthesis of Plasmonic Nanocomposites for Diverse Applications. Journal of Nanoscience and Nanotechnology, 2010, 10, 2705-2712.	0.9	38
38	RF magnetron sputtered Ag-Cu ₂ O-CuO nanocomposite thin films with highly enhanced photocatalytic and catalytic performance. Applied Surface Science, 2020, 517, 146169.	3.1	38
39	Swift heavy ion induced modifications of fullerene C70 thin films. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3257-3262.	0.6	37
40	Structural, optical and gas sensing properties of Ag-SnO ₂ plasmonic nanocomposite thin films. Ceramics International, 2016, 42, 17237-17242.	2.3	37
41	Enhanced catalytic activity of CuO/Cu ₂ O hybrid nanowires for reduction of 4-nitrophenol in water. Journal of Physics and Chemistry of Solids, 2020, 136, 109143.	1.9	37
42	Shape deformation of embedded metal nanoparticles by swift heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 936-940.	0.6	36
43	Plasmonic, Low-Frequency Raman, and Nonlinear Optical-Limiting Studies in Copper-Silica Nanocomposites. Plasmonics, 2012, 7, 25-31.	1.8	35
44	Radiation stability of Gd ₂ Zr ₂ O ₇ : Effect of stoichiometry and structure. Ceramics International, 2016, 42, 103-109.	2.3	35
45	Thermal Evolution Of Structural, Optical And Photocatalytic Properties Of TiO ₂ Nanostructures. Advanced Materials Letters, 2015, 6, 924-929.	0.3	34
46	Shape elongation of Zn nanoparticles in silica irradiated with swift heavy ions of different species and energies: scaling law and some insights on the elongation mechanism. Nanotechnology, 2014, 25, 435301.	1.3	32
47	Rapid synthesis of ZnO nanowires and nanoplates with highly enhanced photocatalytic performance. Applied Surface Science, 2021, 541, 148484.	3.1	31
48	A study on the formation of Ag nanoparticles on the surface and catcher by ion beam irradiation of Ag thin films. Journal Physics D: Applied Physics, 2012, 45, 445304.	1.3	30
49	Surface Plasmon Resonance of Ag Nanoparticles Embedded in Partially Oxidized Amorphous Si Matrix. Journal of Nanoscience and Nanotechnology, 2008, 8, 4285-4289.	0.9	27
50	Ion beam engineering of morphological, structural, optical and photocatalytic properties of Ag-TiO ₂ -PVA nanocomposite thin film. Ceramics International, 2019, 45, 7976-7983.	2.3	27
51	Growth of Au nanostructures by annealing electron beam evaporated thin films. Journal of Optics, 2007, 9, S410-S414.	1.5	25
52	Size saturation in low energy ion beam synthesized Au nanoclusters and their size redistribution with O irradiation. Thin Solid Films, 2005, 492, 35-40.	0.8	24
53	Synthesis of Au nanoparticles in partially oxidized Si matrix by atom beam sputtering. Journal Physics D: Applied Physics, 2007, 40, 7063-7068.	1.3	24
54	Swift heavy ion irradiation of ZnO nanoparticles embedded in silica: Radiation-induced deoxidation and shape elongation. Applied Physics Letters, 2013, 103, .	1.5	23

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55	Facile Synthesis and Phase-Dependent Catalytic Activity of Cabbage-Type Copper Oxide Nanostructures for Highly Efficient Reduction of 4-Nitrophenol. <i>Catalysis Letters</i> , 2019, 149, 2519-2527.	1.4	23
56	Engineering of morphological, optical, structural, photocatalytic and catalytic properties of nanostructured CuO thin films fabricated by reactive DC magnetron sputtering. <i>Ceramics International</i> , 2020, 46, 7499-7509.	2.3	23
57	Biosynthesis Of High Concentration, Stable Aqueous Dispersions Of Silver Nanoparticles Using Citrus Limon extract. <i>Advanced Materials Letters</i> , 2015, 6, 228-234.	0.3	23
58	Facile synthesis, morphological, structural, photocatalytic and optical properties of ZnFe ₂ O ₄ -ZnO hybrid nanostructures. <i>Journal of Alloys and Compounds</i> , 2022, 895, 162723.	2.8	22
59	Morphology Controlled CuO Nanostructures for Efficient Catalytic Reduction of 4-Nitrophenol. <i>Catalysis Letters</i> , 2020, 150, 471-481.	1.4	21
60	Thermal annealing induced strong photoluminescence enhancement in Ag-TiO ₂ plasmonic nanocomposite thin films. <i>Journal of Alloys and Compounds</i> , 2019, 786, 750-757.	2.8	20
61	Thickness dependent optical, structural, morphological, photocatalytic and catalytic properties of radio frequency magnetron sputtered nanostructured Cu ₂ O-CuO thin films. <i>Ceramics International</i> , 2020, 46, 14902-14912.	2.3	20
62	Photocatalytic and catalytic removal of toxic pollutants from water using CuO nanosheets. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 6088-6099.	1.1	19
63	Crater formation in gold nanoislands due to MeV self-ion irradiation. <i>Journal of Applied Physics</i> , 2003, 93, 6399-6401.	1.1	18
64	Thermal annealing induced evolution of morphological, structural, optical and photocatalytic properties of Ag-TiO ₂ nanocomposite thin films. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 129, 317-323.	1.9	18
65	Fabrication of Au-CuO hybrid plasmonic nanostructured thin films with enhanced photocatalytic activity. <i>Materials Research Bulletin</i> , 2020, 123, 110707.	2.7	18
66	Structural and optical properties of SnO ₂ nanotowers and interconnected nanowires prepared by carbothermal reduction method. <i>Journal of Alloys and Compounds</i> , 2014, 592, 238-243.	2.8	17
67	Facile Synthesis Of Co Doped ZnO Nanodisks For Highly Efficient Photocatalytic Degradation Of Methyl Orange. <i>Advanced Materials Letters</i> , 2015, 6, 217-223.	0.3	17
68	Plasmonic properties of Ag nanoparticles embedded in GeO ₂ -SiO ₂ matrix by atom beam sputtering. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3878-3883.	1.3	16
69	Synthesis of embedded Au nanostructures by ion irradiation: influence of ion induced viscous flow and sputtering. <i>Beilstein Journal of Nanotechnology</i> , 2014, 5, 105-110.	1.5	15
70	Smoothing, roughening and sputtering: the complex evolution of immiscible Fe/Bi bilayer system. <i>Journal Physics D: Applied Physics</i> , 2008, 41, 215306.	1.3	15
71	Synthesis of nanostructured TiO ₂ thin films with highly enhanced photocatalytic activity by atom beam sputtering. <i>Advanced Materials Letters</i> , 2017, 8, 107-113.	0.3	15
72	Compositional analysis of atom beam co-sputtered metal-silica nanocomposites by Rutherford backscattering spectrometry. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008, 266, 1511-1516.	0.6	13

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73	Ion beam engineering of morphological, structural and optical properties of Au/SnO ₂ hybrid nanostructured thin films. <i>Journal of Alloys and Compounds</i> , 2016, 680, 155-162.	2.8	13
74	Morphological, plasmonic and enhanced antibacterial properties of Ag nanoparticles prepared using <i>Zingiber officinale</i> extract. <i>Journal of Physics and Chemistry of Solids</i> , 2019, 126, 257-266.	1.9	13
75	Effects Of Solvent On Structural, Optical And Photocatalytic Properties Of ZnO Nanostructures. <i>Advanced Materials Letters</i> , 2015, 6, 1104-1110.	0.3	13
76	Facile synthesis, structural, optical and photocatalytic properties of anatase/ rutile mixed phase TiO ₂ ball-like sub-micron structures. <i>Optik</i> , 2019, 188, 270-276.	1.4	12
77	Facile fabrication of CuO spindles for photocatalytic applications. <i>Ceramics International</i> , 2020, 46, 24407-24412.	2.3	12
78	Synthesis and characterization of Au@alumina nanocomposites prepared by atom beam co-sputtering. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012, 209, 2499-2504.	0.8	11
79	Facile synthesis, morphological, structural, photocatalytic and optical properties of CoFe ₂ O ₄ nanostructures. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	11
80	Silver nanoparticles decorated two dimensional MoS ₂ nanosheets for enhanced photocatalytic activity. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 635, 128102.	2.3	11
81	Green aspects of photocatalysts during corona pandemic: a promising role for the deactivation of COVID-19 virus. <i>RSC Advances</i> , 2022, 12, 13609-13627.	1.7	11
82	Low energy O induced redistribution of nanosized Au inclusions in an oxide layer grown on Si(100). <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005, 227, 559-566.	0.6	10
83	Facile synthesis, structural, optical and photocatalytic properties of mesoporous Ag ₂ O/TiO ₂ nanoheterojunctions. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 138, 109305.	1.9	10
84	Chemical Synthesis of Rare Earth (La, Gd) Doped Cobalt Ferrite and a Comparative Analysis of Their Magnetic Properties. <i>Journal of Nanoscience and Nanotechnology</i> , 2020, 20, 5239-5245.	0.9	10
85	Surfactant based synthesis and magnetic studies of cobalt ferrite. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	9
86	Magnetic bipolar transistor based on ZnO/NiO/Si heterostructure using pulsed laser deposition. <i>AIP Advances</i> , 2020, 10, .	0.6	9
87	Rutherford backscattering and electron microscopy study of annealing behavior of MeV implanted gold in silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 222, 249-254.	0.6	8
88	Effects of MeV ion irradiation on structural and optical properties of SnO ₂ @ZnO nanocomposites prepared by carbothermal evaporation. <i>Journal of Alloys and Compounds</i> , 2014, 617, 734-739.	2.8	8
89	Facile fabrication of CuO nanosheets for photocatalytic applications. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	8
90	Anomalous diffusion of Au in mega-electron-volt Au implanted SiO ₂ @Si(100). <i>Journal of Applied Physics</i> , 2007, 101, 063542.	1.1	7

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91	Thermal annealing induced cave in and formation of nanoscale pits in Ag@TiO ₂ plasmonic nanocomposite thin film. <i>Ceramics International</i> , 2020, 46, 3275-3281.	2.3	7
92	Cu@CuO and Cu@CuO@ZnO hybrid nanostructures as photocatalysts and catalysts for efficient removal of pollutants. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	6
93	Tailoring The Size Of Gold Nanoparticles By Electron Beam Inside Transmission Electron Microscope. <i>Advanced Materials Letters</i> , 2010, 1, 151-155.	0.3	6
94	In-situ TEM Observation Of Electron Irradiation Induced Shape Transition Of Elongated Gold Nanoparticles Embedded In Silica. <i>Advanced Materials Letters</i> , 2013, 4, 444-448.	0.3	6
95	Facile synthesis, morphological, structural, photocatalytic, and optical properties of ZnFe ₂ O ₄ nanostructures. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 27429-27440.	1.1	6
96	High efficiency gettering of Au in Si(111) by MeV C implantation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2004, 217, 578-582.	0.6	5
97	Effects of MeV heavy ion irradiation on structural, morphological and optical properties of nanostructured SnO ₂ thin films prepared by thermal evaporation. <i>Journal of Alloys and Compounds</i> , 2016, 656, 647-653.	2.8	5
98	CdTe and anodic oxides on Hg _{1-x} CdxTe: interface and compositional analysis using Rutherford backscattering spectroscopy. <i>Surface and Interface Analysis</i> , 2005, 37, 562-567.	0.8	4
99	Improvement in the ability to block Hg out diffusion from Hg _{1-x} CdxTe by hydrogenation. <i>Semiconductor Science and Technology</i> , 2006, 21, 998-1001.	1.0	4
100	Gettering of implanted Au in MeV C implanted Si. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 82, 297-304.	1.1	4
101	Synthesis of silver nanorings by atom beam sputtering. <i>International Journal of Nanomanufacturing</i> , 2011, 7, 21.	0.3	4
102	MeV ion irradiation induced evolution of morphological, structural and optical properties of nanostructured SnO ₂ thin films. <i>Materials Research Express</i> , 2015, 2, 045013.	0.8	4
103	Swift heavy ion irradiation of metal containing tetrahedral amorphous carbon films. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2016, 379, 162-166.	0.6	4
104	Magnetic properties of single-layer and multilayer structured Co ₄₀ Fe ₄₀ B ₂₀ thin films. <i>Thin Solid Films</i> , 2016, 616, 126-133.	0.8	4
105	Morphological, optical, catalytic and photocatalytic properties of RF magnetron sputtered Au-Cu ₂ O-CuO nanocomposite thin films. <i>Surfaces and Interfaces</i> , 2021, 26, 101436.	1.5	4
106	Synthesis of Controlled Diluted Magnetic Semiconductor by Ni Implantation in ZnO Crystal. <i>Advanced Science Letters</i> , 2009, 2, 324-328.	0.2	4
107	SHI induced surface modifications of immiscible Fe/Bi bilayer system. <i>Surface and Coatings Technology</i> , 2009, 203, 2399-2402.	2.2	3
108	Ejection of Au and Si nanocrystals from Au implanted Si(100) by MeV heavy ion irradiation. <i>Applied Surface Science</i> , 2013, 283, 128-133.	3.1	3

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109	Ion beam induced evolution of surface morphology and optical properties of SnO ₂ @ZnO nanocomposite thin films. <i>Ceramics International</i> , 2015, 41, 8614-8622.	2.3	3
110	RBS study of annealing effects in passivated mercury cadmium telluride. <i>Semiconductor Science and Technology</i> , 2005, 20, 1072-1077.	1.0	2
111	Effect of implanted O on gettering of Au at dislocations in Si. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 129, 43-47.	1.7	2
112	Growth of Self-Organized Metal Nanostructures by Physical Methods. <i>Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry</i> , 2007, 37, 357-362.	0.6	2
113	Role of melting temperature in intermixing of miscible metal/metal bilayers induced by swift heavy ions. <i>Radiation Effects and Defects in Solids</i> , 2011, 166, 689-695.	0.4	2
114	Fabrication Of SnO ₂ Three Dimensional Complex Microcrystal Chains By Carbothermal Reduction Method. <i>Advanced Materials Letters</i> , 2015, 6, 148-152.	0.3	2
115	Facile synthesis of Ce-doped ZnO nanospindles for photocatalytic applications. <i>Applied Physics A: Materials Science and Processing</i> , 2021, 127, 1.	1.1	2
116	Modification of properties of metal containing carbon films by swift heavy ion irradiation. , 2014, , .		1
117	Au-ZnO: A tunable plasmonic nanocomposite for SERS and switching. , 2009, , .		0
118	Thermal evolution of morphological, optical, and photocatalytic properties of Au@Cu ₂ O@CuO nanocomposite thin film. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 24058-24068.	1.1	0
119	Enhanced gettering of gold at end-of-range defects in high energy ion implanted silicon. <i>Advanced Materials Letters</i> , 2017, 8, 999-1003.	0.3	0