

Jai Prakash

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1624526/jai-prakash-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

75
papers

1,727
citations

25
h-index

39
g-index

78
ext. papers

2,284
ext. citations

5.2
avg, IF

5.31
L-index

#	Paper	IF	Citations
75	Noble metals-TiO ₂ nanocomposites: From fundamental mechanisms to photocatalysis, surface enhanced Raman scattering and antibacterial applications. <i>Applied Materials Today</i> , 2018 , 11, 82-135	6.6	148
74	Dual Functional Ta-Doped Electrospun TiO Nanofibers with Enhanced Photocatalysis and SERS Detection for Organic Compounds. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 28495-28507	9.5	111
73	Rational design of multifunctional air electrodes for rechargeable Zn-Air batteries: Recent progress and future perspectives. <i>Energy Storage Materials</i> , 2019 , 21, 253-286	19.4	102
72	Design and engineering of high-performance photocatalytic systems based on metal oxide-graphene-noble metal nanocomposites. <i>Molecular Systems Design and Engineering</i> , 2017 , 2, 422-439	4.6	69
71	Noble metal nanoparticles embedding into polymeric materials: From fundamentals to applications. <i>Advances in Colloid and Interface Science</i> , 2015 , 226, 187-202	14.3	69
70	Synthesis, characterization and multifunctional properties of plasmonic Ag-TiO ₂ nanocomposites. <i>Nanotechnology</i> , 2016 , 27, 355707	3.4	59
69	Spectroscopic identification of an Fe(III) center, not Fe(IV), in the crystalline Sc-O-Fe adduct derived from [Fe(IV)(O)(TMC)] ⁺ . <i>Journal of the American Chemical Society</i> , 2015 , 137, 3478-81	16.4	51
68	Nitrogen-doping processes of graphene by a versatile plasma-based method. <i>Carbon</i> , 2014 , 73, 216-224	10.4	51
67	Plasmonic resonance of Ag nanoclusters diffused in soda-lime glasses. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 8596-603	3.6	48
66	Opacity and plasmonic properties of Ag embedded glass based metamaterials. <i>RSC Advances</i> , 2015 , 5, 12555-12562	3.7	44
65	Synthesis of Au nanoparticles at the surface and embedded in carbonaceous matrix by 150 keV Ar ion irradiation. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 125302	3	44
64	Swift heavy ion irradiation induced modification of the microstructure of NiO thin films. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2010 , 268, 1613-1617	1.2	42
63	Embedded plasmonic nanostructures: synthesis, fundamental aspects and their surface enhanced Raman scattering applications. <i>International Reviews in Physical Chemistry</i> , 2016 , 35, 353-398	7	41
62	Optical and surface enhanced Raman scattering properties of Au nanoparticles embedded in and located on a carbonaceous matrix. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 2468-80	3.6	41
61	Engineering of transition metal dichalcogenide-based 2D nanomaterials through doping for environmental applications. <i>Molecular Systems Design and Engineering</i> , 2019 , 4, 804-827	4.6	40
60	Progress in tailoring perovskite based solar cells through compositional engineering: Materials properties, photovoltaic performance and critical issues. <i>Materials Today Energy</i> , 2018 , 9, 440-486	7	40
59	Surface roughness and power spectral density study of SHI irradiated ultra-thin gold films. <i>Applied Surface Science</i> , 2009 , 256, 558-561	6.7	37

58	Role of silver doping on the defects related photoluminescence and antibacterial behaviour of zinc oxide nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 159, 191-199	6	36
57	Rational Design of Novel Catalysts with Atomic Layer Deposition for the Reduction of Carbon Dioxide. <i>Advanced Energy Materials</i> , 2019 , 9, 1900889	21.8	33
56	Upside Down! Crystallographic and Spectroscopic Characterization of an [Fe IV(O syn)(TMC)] ²⁺ Complex. <i>Inorganic Chemistry</i> , 2015 , 54, 11055-7	5.1	29
55	Phosphor Polymer Nanocomposite: ZnO:Tb ³⁺ Embedded Polystyrene Nanocomposite Thin Films for Solid-State Lighting Applications. <i>ACS Applied Nano Materials</i> , 2018 , 1, 977-988	5.6	29
54	Structural phase transformation in ZnS nanocrystalline thin films by swift heavy ion irradiation. <i>Solid State Communications</i> , 2010 , 150, 1158-1161	1.6	29
53	Chemical vapour deposition of graphene: layer control, the transfer process, characterisation, and related applications. <i>International Reviews in Physical Chemistry</i> , 2019 , 38, 149-199	7	28
52	Role of surface and subsurface defects in MgO thin film: XANES and magnetic investigations. <i>Superlattices and Microstructures</i> , 2015 , 77, 313-324	2.8	27
51	Iron (II) phthalocyanine/N-doped graphene: A highly efficient non-precious metal catalyst for oxygen reduction. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 18103-18114	6.7	26
50	Study Of Surface Morphology And Grain Size Of Irradiated MgO Thin Films. <i>Advanced Materials Letters</i> , 2012 , 3, 112-117	2.4	25
49	Phenomenological understanding of dewetting and embedding of noble metal nanoparticles in thin films induced by ion irradiation. <i>Materials Chemistry and Physics</i> , 2014 , 147, 920-924	4.4	23
48	Oxoiron(IV) Complex of the Ethylene-Bridged Dialkylcyclam Ligand Me ₂ EBC. <i>Inorganic Chemistry</i> , 2015 , 54, 7828-39	5.1	22
47	Ion beam induced interface mixing of Ni on PTFE bilayer system studied by quadrupole mass analysis and electron spectroscopy for chemical analysis. <i>Vacuum</i> , 2010 , 84, 1275-1279	3.7	21
46	Band gap tailoring of cauliflower-shaped CuO nanostructures by Zn doping for antibacterial applications. <i>Journal of Alloys and Compounds</i> , 2020 , 832, 154968	5.7	20
45	Fabrication and characterization of nitrogen doped p-ZnO on n-Si heterojunctions. <i>Sensors and Actuators A: Physical</i> , 2016 , 247, 475-481	3.9	20
44	Novel rare earth metal doped one-dimensional TiO ₂ nanostructures: Fundamentals and multifunctional applications. <i>Materials Today Sustainability</i> , 2021 , 13, 100066	5	20
43	Fundamentals and applications of recyclable SERS substrates. <i>International Reviews in Physical Chemistry</i> , 2019 , 38, 201-242	7	19
42	Plasmonic and nonlinear optical behavior of nanostructures in glass matrix for photonics application. <i>Materials Research Bulletin</i> , 2020 , 125, 110799	5.1	19
41	Emerging applications of atomic layer deposition for the rational design of novel nanostructures for surface-enhanced Raman scattering. <i>Journal of Materials Chemistry C</i> , 2019 , 7, 1447-1471	7.1	18

40	Hydrothermal synthesis of TiO ₂ nanorods: formation chemistry, growth mechanism, and tailoring of surface properties for photocatalytic activities. <i>Materials Today Chemistry</i> , 2021 , 20, 100428	6.2	18
39	Swift heavy ion irradiation induced modification of structure and surface morphology of BiFeO ₃ thin film. <i>Bulletin of Materials Science</i> , 2013 , 36, 813-818	1.7	14
38	Optical limiting applications of resonating plasmonic Au nanoparticles in a dielectric glass medium. <i>Nanotechnology</i> , 2021 , 32,	3.4	13
37	Surface evolution of titanium oxide thin film with swift heavy ion irradiation. <i>Radiation Effects and Defects in Solids</i> , 2011 , 166, 571-577	0.9	12
36	High-energy ion induced physical and surface modifications in antimony sulphide thin films. <i>Current Applied Physics</i> , 2010 , 10, 1112-1116	2.6	12
35	Study on synthesis of magnetic nanocomposite (Ni-Teflon) by swift heavy ion beam mixing. <i>Advanced Materials Letters</i> , 2011 , 2, 71-75	2.4	12
34	130MeV Au ion irradiation induced dewetting on In ₂ Te ₃ thin film. <i>Applied Surface Science</i> , 2012 , 258, 8558-8563	6.7	11
33	Engineering metal oxide semiconductor nanostructures for enhanced charge transfer: fundamentals and emerging SERS applications. <i>Journal of Materials Chemistry C</i> , 2021 , 10, 73-95	7.1	11
32	Improvement of opto-electro-structural properties of nanocrystalline CdS thin films induced by Au ₉ + ion irradiation. <i>Thin Solid Films</i> , 2017 , 626, 117-125	2.2	10
31	PbTe formation by swift heavy ion beam induced interface mixing of Te/PbO bilayer. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 289, 22-27	1.2	10
30	Synthesis Of Ag Nanoparticles On Polymer Surface: 150 KeV Ar Ion Irradiation Of Ag-PVC Bilayer. <i>Advanced Materials Letters</i> , 2013 , 4, 408-412	2.4	10
29	Study of Tunable Plasmonic, Photoluminescence, and Nonlinear Optical Behavior of Ag Nanoclusters Embedded in a Glass Matrix for Multifunctional Applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019 , 216, 1800768	1.6	10
28	Investigation of swift heavy ion-induced mixing in metal/polymer systems. <i>Radiation Effects and Defects in Solids</i> , 2011 , 166, 682-688	0.9	9
27	Surface modifications of ultra-thin gold films by swift heavy ion irradiation. <i>Indian Journal of Physics</i> , 2010 , 84, 1391-1397	1.4	9
26	Photocatalytic TiO ₂ nanomaterials as potential antimicrobial and antiviral agents: Scope against blocking the SARS-COV-2 spread. <i>Micro and Nano Engineering</i> , 2022 , 14, 100100	3.4	8
25	Electrochemical Sensor Based on Nanodiamonds and Manioc Starch for Detection of Tetracycline. <i>Journal of Sensors</i> , 2021 , 2021, 1-10	2	7
24	Synthesis and studies of carbazole-based donor polymer for organic solar cell applications. <i>Colloid and Polymer Science</i> , 2018 , 296, 1193-1203	2.4	7
23	Novel polypyrrole-graphene oxide-gold nanocomposite for high performance hydrogen peroxide sensing application. <i>Sensors and Actuators A: Physical</i> , 2021 , 328, 112769	3.9	7

22	Multi-metallic catalysts for the electroreduction of carbon dioxide: Recent advances and perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 155, 111922	16.2	6
21	Formation of the syn isomer of [Fe(IV)(Oanti)(TMC)(NCMe)](2+) in the reaction of Lewis acids with the side-on bound peroxy ligand in [Fe(III)([O2-O2)(TMC)](.). <i>Chemical Communications</i> , 2016 , 52, 8146-8	5.8	5
20	Design and chemical engineering of carbazole-based donor small molecules for organic solar cell applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2018 , 29, 14842-14851	2.1	5
19	Magnetization in MgO based multilayers fabricated by e-beam evaporation 2012 ,		5
18	A facile synthesis of novel polyaniline/graphene nanocomposite thin films for enzyme-free electrochemical sensing of hydrogen peroxide. <i>Molecular Systems Design and Engineering</i> ,	4.6	5
17	Recent Progress on Novel Ag ^{III} IO ₂ Nanocomposites for Antibacterial Applications. <i>Nanotechnology in the Life Sciences</i> , 2019 , 121-143	1.1	4
16	Modifications Induced by Swift Heavy Ion Beam of 60 MeV Si ⁵⁺ in Poly(3-octylthiophene). <i>Science of Advanced Materials</i> , 2012 , 4, 1024-1030	2.3	4
15	Facile Conversion of syn-[Fe(O)(TMC)] into the anti Isomer via Meunier's Oxo-Hydroxo Tautomerism Mechanism. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 1995-1999	16.4	4
14	Spectral studies on Ag ⁸⁺ ions irradiated LAHCl·H ₂ O and LAHBr·H ₂ O single crystals. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2011 , 79, 884-8	4.4	3
13	Hydrothermal synthesis and Ta doping of TiO ₂ nanorods: Effect of soaking time and doping on optical and charge transfer properties for enhanced SERS activity. <i>Materials Chemistry and Physics</i> , 2022 , 278, 125642	4.4	3
12	Facile Conversion of syn-[Fe(IV)(O)(TMC)] ²⁺ into the anti Isomer via Meunier's Oxo-Hydroxo Tautomerism Mechanism. <i>Angewandte Chemie</i> , 2019 , 131, 2017-2021	3.6	2
11	An insight into the green synthesis of SiO ₂ nanostructures as a novel adsorbent for removal of toxic water pollutants.. <i>Environmental Research</i> , 2022 , 212, 113328	7.9	2
10	Chiral adsorption studied by field emission techniques: the case of alanine on platinum. <i>New Journal of Chemistry</i> , 2017 , 41, 6638-6645	3.6	1
9	Nanoscale Chiral Recognition Using Field Ion and Field Emission Microscopy. <i>Microscopy and Microanalysis</i> , 2017 , 23, 626-627	0.5	1
8	3D Graphene and Its Nanocomposites: From Synthesis to Multifunctional Applications. <i>Carbon Nanostructures</i> , 2019 , 363-388	0.6	1
7	A novel and facile green synthesis of SiO ₂ nanoparticles for removal of toxic water pollutants. <i>Applied Nanoscience (Switzerland)</i> , 2022 , 12, 113350	3.3	1
6	TiO ₂ nanoflower photocatalysts: Synthesis, modifications and applications in wastewater treatment for removal of emerging organic pollutants. <i>Environmental Research</i> , 2022 , 212, 113550	7.9	1
5	Design and engineering of graphene nanostructures as independent solar-driven photocatalysts for emerging applications in the field of energy and environment. <i>Molecular Systems Design and Engineering</i> ,	4.6	0

4	Surface Gold and Silver-Polymer Nanocomposite Self-Standing Films 2021 , 199-217	0
3	Unmasking Steps in Intramolecular Aromatic Hydroxylation by a Synthetic Nonheme Oxoiron(IV) Complex. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 20991-20998	16.4 0
2	Silver Nanostructures, Chemical Synthesis Methods, and Biomedical Applications. <i>Nanotechnology in the Life Sciences</i> , 2020 , 281-303	1.1
1	Unmasking Steps in Intramolecular Aromatic Hydroxylation by a Synthetic Nonheme Oxoiron(IV) Complex. <i>Angewandte Chemie</i> , 2021 , 133, 21159-21166	3.6