## Saravanan Rajendran

List of Publications by Year in descending order

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129 papers 12,874 citations

53 h-index 23533 111 g-index

130 all docs

130 docs citations

130 times ranked

8784 citing authors

#	Article	IF	CITATIONS
1	Enhanced photocatalytic activity of ZnO/CuO nanocomposite for the degradation of textile dye on visible light illumination. Materials Science and Engineering C, 2013, 33, 91-98.	7.3	923
2	Conducting PANI stimulated ZnO system for visible light photocatalytic degradation of coloured dyes. Journal of Molecular Liquids, 2016, 221, 1029-1033.	4.9	608
3	ZnO/Ag/CdO nanocomposite for visible light-induced photocatalytic degradation of industrial textile effluents. Journal of Colloid and Interface Science, 2015, 452, 126-133.	9.4	579
4	ZnO/Ag nanocomposite: An efficient catalyst for degradation studies of textile effluents under visible light. Materials Science and Engineering C, 2013, 33, 2235-2244.	7.3	525
5	Ce3+-ion-induced visible-light photocatalytic degradation and electrochemical activity of ZnO/CeO2 nanocomposite. Scientific Reports, 2016, 6, 31641.	3.3	506
6	Visible light induced degradation of methylene blue using CeO2/V2O5 and CeO2/CuO catalysts. Materials Science and Engineering C, 2013, 33, 4725-4731.	7.3	465
7	The photocatalytic activity of ZnO prepared by simple thermal decomposition method at various temperatures. Journal of Molecular Liquids, 2013, 177, 394-401.	4.9	459
8	ZnO/Ag/Mn <sub>2</sub> O <sub>3</sub> nanocomposite for visible light-induced industrial textile effluent degradation, uric acid and ascorbic acid sensing and antimicrobial activity. RSC Advances, 2015, 5, 34645-34651.	3.6	426
9	Preparation and characterization of V2O5/ZnO nanocomposite system for photocatalytic application. Journal of Molecular Liquids, 2014, 198, 409-412.	4.9	363
10	Guanine-Based DNA Biosensor Amplified with Pt/SWCNTs Nanocomposite as Analytical Tool for Nanomolar Determination of Daunorubicin as an Anticancer Drug: A Docking/Experimental Investigation. Industrial & Description Chemistry Research, 2021, 60, 816-823.	3.7	358
11	Comparative study on photocatalytic activity of ZnO prepared by different methods. Journal of Molecular Liquids, 2013, 181, 133-141.	4.9	348
12	A critical review on the use of potentiometric based biosensors for biomarkers detection. Biosensors and Bioelectronics, 2021, 184, 113252.	10.1	343
13	Visible light degradation of textile effluent using novel catalyst ZnO/γ-Mn2O3. Journal of the Taiwan Institute of Chemical Engineers, 2014, 45, 1910-1917.	<b>5.</b> 3	333
14	Fabrication of novel shape Cu and Cu/Cu2O nanoparticles modified electrode for the determination of dopamine and paracetamol. Journal of Molecular Liquids, 2016, 221, 930-941.	4.9	332
15	Tuning of metal oxides photocatalytic performance using Ag nanoparticles integration. Journal of Molecular Liquids, 2020, 314, 113588.	4.9	323
16	Synthesis, characterization and photocatalytic activity of novel Hg doped ZnO nanorods prepared by thermal decomposition method. Journal of Molecular Liquids, 2013, 178, 88-93.	4.9	296
17	An amplified voltammetric sensor based on platinum nanoparticle/polyoxometalate/two-dimensional hexagonal boron nitride nanosheets composite and ionic liquid for determination of N-hydroxysuccinimide in water samples. Journal of Molecular Liquids, 2020, 310, 113185.	4.9	248
18	A critical review on various remediation approaches for heavy metal contaminants removal from contaminated soils. Chemosphere, 2022, 287, 132369.	8.2	246

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19	ZnO/CdO composite nanorods for photocatalytic degradation of methylene blue under visible light. Materials Chemistry and Physics, 2011, 125, 277-280.	4.0	239
20	Facile synthesis of paper based graphene electrodes for point of care devices: A double stranded DNA (dsDNA) biosensor. Journal of Colloid and Interface Science, 2020, 566, 463-472.	9.4	232
21	Synthesis and characterization of chitosan–silver nanocomposite. Applied Nanoscience (Switzerland), 2012, 2, 299-303.	3.1	175
22	Nanochemistry approach for the fabrication of Fe and N co-decorated biomass-derived activated carbon frameworks: a promising oxygen reduction reaction electrocatalyst in neutral media. Journal of Nanostructure in Chemistry, 2022, 12, 429-439.	9.1	171
23	Synthesis and characterization of metal oxides (CeO 2 , CuO, NiO, Mn 3 O 4 , SnO 2 and ZnO) nanoparticles as photo catalysts for degradation of textile dyes. Journal of Photochemistry and Photobiology B: Biology, 2017, 173, 43-49.	3.8	168
24	ZnO/CdO nanocomposites for textile effluent degradation and electrochemical detection. Journal of Molecular Liquids, 2015, 209, 374-380.	4.9	163
25	A critical review on relationship of CeO2-based photocatalyst towards mechanistic degradation of organic pollutant. Chemosphere, 2022, 286, 131651.	8.2	147
26	Green polymeric nanomaterials for the photocatalytic degradation of dyes: a review. Environmental Chemistry Letters, 2020, 18, 1569-1580.	16.2	134
27	Towards green synthesis of monodisperse Cu nanoparticles: An efficient and high sensitive electrochemical nitrite sensor. Sensors and Actuators B: Chemical, 2018, 266, 873-882.	7.8	133
28	Crystallinity and lowering band gap induced visible light photocatalytic activity of TiO2/CS (Chitosan) nanocomposites. International Journal of Biological Macromolecules, 2018, 109, 1239-1245.	<b>7.</b> 5	121
29	Heterostructured dâ€Ti <sub>3</sub> C <sub>2</sub> /TiO <sub>2/</sub> gâ€C <sub>3</sub> N <sub>4</sub> Nanocomposites with Enhanced Visibleâ€Light Photocatalytic Hydrogen Production Activity. ChemSusChem, 2018, 11, 4226-4236.	6.8	120
30	Basic Principles, Mechanism, and Challenges of Photocatalysis. Springer Series on Polymer and Composite Materials, 2017, , 19-40.	0.7	112
31	Visible light induced degradation of methyl orange using $\hat{l}^2$ -Ag0.333V2O5 nanorod catalysts by facile thermal decomposition method. Journal of Saudi Chemical Society, 2015, 19, 521-527.	<b>5.</b> 2	106
32	Mechanothermal synthesis of Ag/TiO2 for photocatalytic methyl orange degradation and hydrogen production. Chemical Engineering Research and Design, 2018, 120, 339-347.	5 <b>.</b> 6	106
33	Degradation of azo dyes under different wavelengths of UV light with chitosan-SnO2 nanocomposites. Journal of Molecular Liquids, 2017, 232, 423-430.	4.9	102
34	Two-dimensional porous sheet-like carbon-doped ZnO/g-C3N4 nanocomposite with high visible-light photocatalytic performance. Materials Letters, 2017, 189, 156-159.	2.6	99
35	Plant-derived silica nanoparticles and composites for biosensors, bioimaging, drug delivery and supercapacitors: a review. Environmental Chemistry Letters, 2021, 19, 1667-1691.	16.2	94
36	Influence of mesoporous defect induced mixed-valent NiO (Ni2+/Ni3+)-TiO2 nanocomposite for non-enzymatic glucose biosensors. Sensors and Actuators B: Chemical, 2018, 264, 27-37.	7.8	88

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37	Fabrication of amine functionalized graphene oxide – AgNPs nanocomposite with improved dispersibility for reduction of 4-nitrophenol. Composites Part B: Engineering, 2019, 171, 302-309.	12.0	88
38	Metal/metal oxide nanocomposites for bactericidal effect: A review. Chemosphere, 2021, 272, 128607.	8.2	87
39	Recent advancements of spinel ferrite based binary nanocomposite photocatalysts in wastewater treatment. Chemosphere, 2021, 274, 129734.	8.2	86
40	Occurrences and removal of pharmaceutical and personal care products from aquatic systems using advanced treatment- A review. Environmental Research, 2022, 204, 112298.	<b>7.</b> 5	79
41	Investigation of mechanism of heavy metals (Cr6+, Pb2+& Zn2+) adsorption from aqueous medium using rice husk ash: Kinetic and thermodynamic approach. Chemosphere, 2022, 286, 131796.	8.2	78
42	WS <sub>2</sub> and Câ€TiO <sub>2</sub> Nanorods Acting as Effective Charge Separators on gâ€C <sub>3</sub> N <sub>4</sub> to Boost Visibleâ€Light Activated Hydrogen Production from Seawater. ChemSusChem, 2018, 11, 4077-4085.	6.8	77
43	Tailoring the electrical and dielectric properties of ZnO nanorods by substitution. Journal of Molecular Liquids, 2014, 193, 160-165.	4.9	76
44	A review of graphene-based semiconductors for photocatalytic degradation of pollutants in wastewater. Chemosphere, 2022, 300, 134391.	8.2	76
45	Mn <sup>2+</sup> ion influenced optical and photocatalytic behaviour of Mn–ZnS quantum dots prepared by a microwave assisted technique. RSC Advances, 2014, 4, 44592-44599.	3.6	75
46	Line defect Ce3+ induced Ag/CeO2/ZnO nanostructure for visible-light photocatalytic activity. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 353, 499-506.	3.9	73
47	Synthesis and characterization of ZnO and Ni doped ZnO nanorods by thermal decomposition method for spintronics application. Materials Characterization, 2012, 67, 10-16.	4.4	72
48	Visible Light-Driven Photocatalytic H <sub>2</sub> Generation and Mechanism Insights into Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> /G-C <sub>3</sub> N <sub>4</sub> Z-Scheme Photocatalyst. Journal of Physical Chemistry C, 2019, 123, 4795-4804.	3.1	71
49	Intermediate state created by dopant ions (Mn, Co and Zr) into TiO 2 nanoparticles for degradation of dyes under visible light. Journal of Molecular Liquids, 2016, 223, 652-659.	4.9	67
50	Generation of novel n-p-n (CeO2-PPy-ZnO) heterojunction for photocatalytic degradation of micro-organic pollutants. Environmental Pollution, 2022, 292, 118375.	7.5	62
51	Notable photocatalytic activity of TiO2-polyethylene nanocomposites for visible light degradation of organic pollutants. EXPRESS Polymer Letters, 2017, 11, 899-909.	2.1	60
52	Engineering strategies and opportunities of next generation biofuel from microalgae: A perspective review on the potential bioenergy feedstock. Fuel, 2022, 312, 122827.	6.4	57
53	Nanosized Fe3O4 incorporated on a TiO2 surface for the enhanced photocatalytic degradation of organic pollutants. Journal of Molecular Liquids, 2019, 287, 110967.	4.9	56
54	Reviewâ€"Metal Organic Framework Based Nanomaterials for Electrochemical Sensing of Toxic Heavy Metal Ions: Progress and Their Prospects. Journal of the Electrochemical Society, 2021, 168, 037513.	2.9	55

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55	Synthesis of novel AgCl loaded g-C3N5 with ultrahigh activity as visible light photocatalyst for pollutants degradation. Chemical Physics Letters, 2020, 738, 136862.	2.6	47
56	Hybrid metal organic frameworks as an Exotic material for the photocatalytic degradation of pollutants present in wastewater: A review. Chemosphere, 2022, 288, 132448.	8.2	46
57	Effective removal of malachite green dye from aqueous solution in hybrid system utilizing agricultural waste as particle electrodes. Chemosphere, 2021, 273, 129634.	8.2	42
58	Visible light driven exotic p (CuO) - n (TiO2) heterojunction for the photodegradation of 4-chlorophenol and antibacterial activity. Environmental Pollution, 2021, 287, 117304.	7.5	42
59	Green Synthesis of Zinc Oxide Nanoparticles by <i>Justicia adhatoda</i> Leaves and Their Antimicrobial Activity. Chemical Engineering and Technology, 2021, 44, 551-558.	1.5	41
60	Green synthesis of white light emitting carbon quantum dots: Fabrication of white fluorescent film and optical sensor applications. Journal of Hazardous Materials, 2021, 416, 125091.	12.4	39
61	Current advances in microbial fuel cell technology toward removal of organic contaminants – A review. Chemosphere, 2022, 287, 132186.	8.2	39
62	Microplastics in the environment: Recent developments in characteristic, occurrence, identification and ecological risk. Chemosphere, 2022, 298, 134161.	8.2	38
63	Sonochemical synthesis of CuO nanostructures and their morphology dependent optical and visible light driven photocatalytic properties. Journal of Materials Science: Materials in Electronics, 2017, 28, 2448-2457.	2.2	36
64	Hydrogen adsorption properties of Ag decorated TiO2 nanomaterials. International Journal of Hydrogen Energy, 2018, 43, 2861-2868.	7.1	35
65	Heterostructures of mesoporous TiO2 and SnO2 nanocatalyst for improved electrochemical oxidation ability of vitamin B6 in pharmaceutical tablets. Journal of Colloid and Interface Science, 2019, 542, 45-53.	9.4	35
66	A review on recent advancements in photocatalytic remediation for harmful inorganic and organic gases. Chemosphere, 2021, 284, 131344.	8.2	35
67	Preparation of nanosized yttrium doped CeO2 catalyst used for photocatalytic application. Journal of Saudi Chemical Society, 2015, 19, 505-510.	5.2	34
68	Low cost and quick time absorption of organic dye pollutants under ambient condition using partially exfoliated graphite. Journal of Water Process Engineering, 2020, 34, 101078.	5.6	33
69	High-performance and stable Ru-Pd nanosphere catalyst supported on two-dimensional boron nitride nanosheets for the hydrogenation of furfural via water-mediated protonation. Fuel, 2021, 290, 119826.	6.4	31
70	The war using microbes: A sustainable approach for wastewater management. Environmental Pollution, 2021, 275, 116598.	7.5	31
71	The role of MOF based nanocomposites in the detection of phenolic compounds for environmental remediation- A review. Chemosphere, 2022, 300, 134516.	8.2	30
72	Photocatalytic Degradation of Organic Dyes Using ZnO/CeO <sub>2</sub> Nanocomposite Material under Visible Light. Advanced Materials Research, 0, 584, 381-385.	0.3	29

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73	Advanced integrated nanocatalytic routes for converting biomass to biofuels: A comprehensive review. Fuel, 2022, 314, 122762.	6.4	28
74	Enhanced photo-induced catalytic activity of Cu ion doped ZnO - Graphene ternary nanocomposite for degrading organic dyes. Journal of Water Process Engineering, 2019, 32, 100966.	5.6	27
75	Nanoflower-like Ti3CN@TiO2/CdS heterojunction photocatalyst for efficient photocatalytic water splitting. International Journal of Hydrogen Energy, 2022, 47, 19580-19589.	7.1	27
76	Water-soluble graphitic carbon nitride for clean environmental applications. Environmental Pollution, 2021, 269, 116172.	7.5	26
77	Photocatalytic degradation of 2,4-dichlorophenol using bio-green assisted TiO2–CeO2 nanocomposite system. Environmental Research, 2021, 195, 110852.	7.5	26
78	Advancements on sustainable microbial fuel cells and their future prospects: A review. Environmental Research, 2022, 210, 112930.	7.5	26
79	Green Synthesis of Silver Nanoparticle from Datura inoxia Flower Extract and Its Cytotoxic Activity. BioNanoScience, 2019, 9, 564-572.	<b>3.</b> 5	24
80	Recent progress in green and biopolymer based photocatalysts for the abatement of aquatic pollutants. Environmental Research, 2021, 199, 111324.	7.5	24
81	Functionalization of MXene-based nanomaterials for the treatment of micropollutants in aquatic system: A review. Environmental Pollution, 2022, 301, 119034.	7.5	24
82	Recent development of organic–inorganic hybrid photocatalysts for biomass conversion into hydrogen production. Nanoscale Advances, 2022, 4, 2561-2582.	4.6	24
83	A review on MXene and its nanocomposites for the detection of toxic inorganic gases. Chemosphere, 2022, 302, 134933.	8.2	24
84	Photosynthesis of H2 and its storage on the Bandgap Engineered Mesoporous (Ni2+/Ni3+)O @ TiO2 heterostructure. Journal of Power Sources, 2020, 466, 228305.	7.8	23
85	Boosting visible-light hydrogen evolution on CdS hollow nanospheres with CoN as cocatalyst. Fuel, 2022, 316, 123307.	6.4	21
86	Metal organic framework derived magnetically recoverable CuFe2O4 porous cubes for efficient photocatalytic application. Inorganic Chemistry Communication, 2021, 125, 108405.	3.9	20
87	A long-standing polarized electric field in TiO2@BaTiO3/CdS nanocomposite for effective photocatalytic hydrogen evolution. Fuel, 2022, 314, 122758.	6.4	20
88	Role of nanotechnology for the conversion of lignocellulosic biomass into biopotent energy: A biorefinery approach for waste to value-added products. Fuel, 2022, 322, 124236.	6.4	20
89	Recent trends and advancements in nanoporous membranes for water purification. Chemosphere, 2022, 303, 135205.	8.2	20
90	PHOTOCATALYTIC DEGRADATION OF ORGANIC DYE USING NANO <font>ZnO</font> . International Journal of Nanoscience, 2011, 10, 253-257.	0.7	19

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91	Facile synthesis of YbVO4, and YVO4 nanostructures through MOF route for photocatalytic applications. Inorganic Chemistry Communication, 2020, 115, 107855.	3.9	18
92	Horseradish Peroxidase-Immobilized Graphene Oxide-Chitosan Gold Nanocomposites as Highly Sensitive Electrochemical Biosensor for Detection of Hydrogen Peroxide. Journal of the Electrochemical Society, 2020, 167, 147517.	2.9	17
93	Surface modification of TiO2 by adding V2O5 nanocatalytic system for hydrogen generation. Chemical Engineering Research and Design, 2022, 182, 114-119.	5.6	16
94	A facile template synthesis of phosphorus-doped graphitic carbon nitride hollow structures with high photocatalytic hydrogen production activity. Materials Chemistry and Physics, 2022, 275, 125299.	4.0	15
95	CuO-ZnO-PANI a lethal p-n-p combination in degradation of 4-chlorophenol under visible light. Journal of Hazardous Materials, 2021, 416, 125989.	12.4	14
96	Cultivation of Chlorella vulgaris on dairy waste using vision imaging for biomass growth monitoring. Bioresource Technology, 2021, 341, 125892.	9.6	14
97	A review of recent progress on photocatalytic carbon dioxide reduction into sustainable energy products using carbon nitride. Chemical Engineering Research and Design, 2022, 177, 304-320.	5.6	14
98	Facile synthesis of graphene-AgVO3 nanocomposite with excellent supercapacitor performance. Materials Chemistry and Physics, 2018, 212, 30-34.	4.0	13
99	Core–Shell Nanostructured Fe <sub>3</sub> O <sub>4</sub> –Poly(styrene- <i>co</i> -vinylbenzyl) Tj ETQq1 1 Omega, 2018, 3, 13685-13693.	0.784314 3.5	rgBT /Over 13
100	Current Role of Nanomaterials in Environmental Remediation. Environmental Chemistry for A Sustainable World, 2019, , 1-20.	0.5	12
101	Nanosized Titania-Nickel mixed oxide for visible light photocatalytic activity. Journal of Molecular Liquids, 2020, 311, 113328.	4.9	12
102	Halides and oxyhalides-based photocatalysts for abatement of organic water contaminants – An overview. Environmental Research, 2022, 212, 113149.	<b>7.</b> 5	12
103	Effect of Ag+ and PO43 <sup>â^²</sup> ratios on the microstructure and photocatalytic activity of Ag3PO4. Functional Materials Letters, 2016, 09, 1650063.	1.2	11
104	Recent advances in carbon nitride-based nanomaterials for hydrogen production and storage. International Journal of Hydrogen Energy, 2022, 47, 37490-37516.	7.1	11
105	Intensification of toxic chlorophenolic compounds degradation over efficient microwave-dried silica-doped tetragonal zirconia nanocatalysts. Chemical Engineering and Processing: Process Intensification, 2021, 165, 108469.	3.6	10
106	Recent developments on graphene and its derivatives based electrochemical sensors for determinations of food contaminants. Food and Chemical Toxicology, 2022, 165, 113169.	3.6	10
107	Principles and Mechanisms of Green Photocatalysis. Environmental Chemistry for A Sustainable World, 2020, , 1-24.	0.5	9
108	Self-assembled dendrite-like 3D-CeO2 nanostructures for non-enzymatic vitamin B2 sensor. Materials Letters, 2021, 295, 129834.	2.6	9

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109	Synthesis and Characterization of Nano-Titania Photocatalyst Loaded on Mo-MCM-41 Support. Advanced Science Letters, 2011, 4, 89-95.	0.2	9
110	Visible light stimulated binary nanostructure and defect enriched TiO2-SnO2 for photocatalysis and antibacterial activity. Materials Letters, 2022, 316, 131998.	2.6	9
111	Adsorptive removal of Pb(II) metal from aqueous medium using biogenically synthesized and magnetically recoverable core-shell structured AM@Cu/Fe3O4 nanocomposite., 0, 111, 278-285.		8
112	Sustainable applicability and environmental impact of wastewater treatment by emerging nanobiotechnological approach: Future strategy for efficient removal of contaminants and water purification. Sustainable Energy Technologies and Assessments, 2022, 53, 102484.	2.7	8
113	SiC x /TiC x Nanostructured Material from Ti 3 SiC 2 for High Rate Performance of Lithium Storage. ChemistrySelect, 2019, 4, 7766-7772.	1.5	7
114	Tailoring the heterojunction of TiO2 with multivalence CeO2 nanocrystals - for detection of toxic 2-aminophenol. Food and Chemical Toxicology, 2022, 165, 113182.	3.6	7
115	Activation of prophenoloxidase and hyperglycemia as indicators of microbial stress in the blue swimmer crab Portunus pelagicus. Marine Pollution Bulletin, 2020, 160, 111711.	5.0	4
116	Photocatalysts for Indoor Air Pollution: A Brief Review. Environmental Chemistry for A Sustainable World, 2020, , 247-274.	0.5	4
117	Magnetically Recoverable Graphene Oxide Wrapped CuCo2S4/Iron Oxides Composites for Supercapacitor Application and Fenton Degradation of Organic Molecules. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 1978-1991.	3.7	3
118	Recent Strategies on Hybrid Inorganic-Graphene Materials for Enhancing the Electrocatalytic Activity Towards Heavy Metal Detection. Topics in Catalysis, 2022, 65, 604-614.	2.8	3
119	Preparation and characterization of Hg doped ZnO nanorods., 2011,,.		2
120	Functional nanomaterial in energy and environmental science., 2020,, 1-23.		2
121	Nanoflower shaped NiO/CeO2 p-n junction material for the degradation of pollutant under visible light. Materials Letters, 2022, 317, 132122.	2.6	2
122	PHOTOCATALYTIC DEGRADATION OF AQUEOUS METHYL ORANGE USING NANOTITANIA LOADED <pre><font>Mo</font>-MCM-41</pre> . International Journal of Nanoscience, 2011, 10, 1131-1135.	0.7	1
123	Recent Trends in Nanomaterials for Sustainable Energy. Environmental Chemistry for A Sustainable World, 2019, , 1-20.	0.5	1
124	Green Photocatalyst for Diverge Applications. Environmental Chemistry for A Sustainable World, 2020, , 1-18.	0.5	1
125	Bismuth Enriched Materials for Pseudo Capacitor Applications. , 2020, , .		1
126	Nano-Titania Photocatalyst Loaded on W-MCM-41 Support and Its Highly Efficient Degradation of Methylene Blue. , 2011, , .		0

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127	Simple and innovative method of removal of unfavourable root: technical note. Tropical Doctor, 2018, 48, 146-148.	0.5	O
128	Electrochemistry: Different Materials and Applications: An Overview., 2020,, 1-24.		0
129	Photocatalytic degradation of organic dyes using nickel oxide incorporated titania nanocatalyst. , 0, 182, 359-364.		O