Subrahmanyam Challapalli

List of Publications by Year
in descending order

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121 papers	4,344 citations	109321 35 h-index	128289 60 g-index
123 all docs	123 docs citations	123 times ranked	4316 citing authors

#	Article	IF	Citations
1	Switching of support materials for the hydrogenation of nitroarenes: A review. Catalysis Reviews - Science and Engineering, 2024, 66, 259-342.	12.9	2
2	Enhanced electrical and photocatalytic activities in Na0.5Bi0.5TiO3 through structural modulation by using anatase and rutile phases of TiO2. Journal of Materiomics, 2022, 8, 18-29.	5.7	11
3	Rational design of TiO2/BiSbS3 heterojunction for efficient solar water splitting. Sustainable Energy Technologies and Assessments, 2022, 49, 101775.	2.7	14
4	Emerging materials for plasmon-assisted photoelectrochemical water splitting. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2022, 51, 100472.	11.6	44
5	Mechano-optical Modulation of Excitons and Carrier Recombination in Self-Assembled Halide Perovskite Quantum Dots. ACS Nano, 2022, 16, 160-168.	14.6	16
6	Physicochemical process of non-thermal plasma at gas-liquid interface and synergistic effect of plasma with catalyst. Current Applied Physics, 2022, 36, 16-26.	2.4	5
7	Room-Temperature Toluene Decomposition by Catalytic Non-Thermal Plasma Reactor. IEEE Transactions on Plasma Science, 2022, 50, 1416-1422.	1.3	4
8	Oxidation of Toluene by Ozone over Surface-Modified Î³-Al2O3: Effect of Ag Addition. Catalysts, 2022, 12, 421.	3.5	4
9	Plasma Functionalized Carbon Interfaces for Biosensor Application: Toward the Real-Time Detection of Escherichia coli O157:H7. ACS Omega, 2022, 7, 21025-21034.	3.5	6
10	Methane decomposition by plasma-packed bed non-thermal plasma reactor. Chemical Engineering Science, 2022, 258, 117779.	3.8	10
11	Plasmonic Au nanoparticle sandwiched CuBi₂O₄/Sb₂S₃photocathode with multi-mediated electron transfer for efficient solar water splitting. Sustainable Energy and Fuels, 2022, 6, 3961-3974.	4.9	15
12	A promising plasma-catalytic approach towards single-step methane conversion to oxygenates at room temperature. Applied Catalysis B: Environmental, 2021, 284, 119735.	20.2	69
13	Ni and Cu oxide supported Î³-Al2O3 packed DBD plasma reactor for CO2 activation. Journal of CO2 Utilization, 2021, 44, 101400.	6.8	38
14	Varying Efficacies of Fenton's Oxidation Treatment on Pharmaceutical Industry Effluents of Contrasting Viscosity Profiles. Clean - Soil, Air, Water, 2021, 49, 2000335.	1.1	2
15	Effect of Curing Time on the Performance of Fly Ash Geopolymer-Stabilized RAP Bases. Journal of Materials in Civil Engineering, 2021, 33, .	2.9	4
16	Facile Synthesis and Photoelectrochemical Performance of a Bi₂S₃@rGO Nanocomposite Photoanode for Efficient Water Splitting. Energy & Fuels, 2021, 35, 6315-6321.	5.1	20
17	Visible light-induced catalytic abatement of 4-nitrophenol and Rhodamine B using ZnO/g-C3N4 catalyst. Journal of Chemical Sciences, 2021, 133, 1.	1.5	9
18	Influence of Biâ€“Cu microstructure on the photoelectrochemical performance of BiVO4 photoanode for efficient water splitting. Solar Energy Materials and Solar Cells, 2021, 232, 111354.	6.2	16

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19	Efficient solar water splitting using a CdS quantum dot decorated TiO2/Ag2Se photoanode. International Journal of Hydrogen Energy, 2021, 46, 34079-34088.	7.1	21
20	Plasmonic nanometal decorated photoanodes for efficient photoelectrochemical water splitting. Catalysis Today, 2021, 379, 1-6.	4.4	16
21	TiO₂ Photoanodes Sensitized with Bi₂Se₃ Nanoflowers for Visibleâ€“Near-Infrared Photoelectrochemical Water Splitting. ACS Applied Nano Materials, 2021, 4, 739-745.	5.0	27
22	Facile, Labelâ€Free, Nonâ€Enzymatic Electrochemical Nanobiosensor Platform as a Significant Step towards Continuous Glucose Monitoring. ChemistrySelect, 2021, 6, 11086-11094.	1.5	10
23	Decoration of plasmonic Cu nanoparticles on WO3/Bi2S3 QDs heterojunction for enhanced photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2020, 45, 7706-7715.	7.1	38
24	Plasmonic Bi nanoparticle decorated BiVO4/rGO as an efficient photoanode for photoelectrochemical water splitting. International Journal of Hydrogen Energy, 2020, 45, 7779-7787.	7.1	22
25	Low-cost adsorbent derived from the coconut shell for the removal of hexavalent chromium from aqueous medium. Materials Today: Proceedings, 2020, 26, 44-51.	1.8	20
26	Oxidative treatment of crude pharmaceutical industry effluent by hydrodynamic cavitation. Journal of Environmental Chemical Engineering, 2020, 8, 104281.	6.7	15
27	Electrocatalytic performance of cobalt doped copper bismuth oxide for glucose sensing and photoelectrochemical applications. Inorganic Chemistry Communication, 2020, 119, 108112.	3.9	9
28	Synthesis of Ni_{0.5}Zn_{0.5}Fe₂O₄-reinforced E-glass/epoxy nanocomposites for radar-absorbing structures. Plastics, Rubber and Composites, 2020, 49, 434-442.	2.0	7
29	Toxicity of nanomaterials due to photochemical degradation and the release of heavy metal ions. Nanoscale, 2020, 12, 22049-22058.	5.6	28
30	Enhanced synergy by plasma reduced Pd nanoparticles on in-plasma catalytic methane conversion to liquid oxygenates. Catalysis Communications, 2020, 147, 106139.	3.3	9
31	Reduced graphene oxide supported ZnO quantum dots for visible light-induced simultaneous removal of tetracycline and hexavalent chromium. RSC Advances, 2020, 10, 20494-20503.	3.6	33
32	An industrial insight on treatment strategies of the pharmaceutical industry effluent with varying qualitative characteristics. Journal of Environmental Chemical Engineering, 2020, 8, 104190.	6.7	14
33	Promising Utilization of CO₂ for Syngas Production over Mg²⁺- and Ce²⁺-Promoted Ni/Î³-Al₂O₃ Assisted by Nonthermal Plasma. ACS Omega, 2020, 5, 14040-14050.	3.5	14
34	Green oxidation of alkylaromatics using molecular oxygen over mesoporous manganese silicate catalysts. Dalton Transactions, 2020, 49, 9710-9718.	3.3	7
35	Promising catalytic activity by non-thermal plasma synthesized SBA-15-supported metal catalysts in one-step plasma-catalytic methane conversion to value-added fuels. Catalysis Science and Technology, 2020, 10, 5566-5578.	4.1	11
36	A facile method to decompose CO2 using a g-C3N4-assisted DBD plasma reactor. Environmental Research, 2020, 183, 109286.	7.5	25

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37	Novel ultra-small Pd NPs on SOS spheres: a new catalyst for domino intramolecular Heck and intermolecular Sonogashira couplings. RSC Advances, 2020, 10, 4568-4578.	3.6	9
38	Palladium Nanoparticles on Silica Nanospheres for Switchable Reductive Coupling of Nitroarenes. Catalysis Letters, 2020, 150, 2309-2321.	2.6	9
39	Heterogeneous Direct Acylation Strategy to Diaryl Ketones and Their Application to 1, 3â€Dihydroisobenzofurans. ChemistrySelect, 2020, 5, 1349-1352.	1.5	3
40	PVP-PS supported ultra-small Pd nanoparticles for the room temperature reduction of 4-nitrophenol. Journal of Environmental Chemical Engineering, 2020, 8, 103899.	6.7	17
41	Synthesis, optoelectronic properties and applications of halide perovskites. Chemical Society Reviews, 2020, 49, 2869-2885.	38.1	282
42	A photoanode with plasmonic nanoparticles of earth abundant bismuth for photoelectrochemical reactions. Nanoscale Advances, 2020, 2, 5591-5599.	4.6	15
43	Mo-doped BiVO4@reduced graphene oxide composite as an efficient photoanode for photoelectrochemical water splitting. Catalysis Today, 2019, 325, 73-80.	4.4	50
44	Extinction of Antimicrobial Resistant Pathogens Using Silver Embedded Silica Nanoparticles and an Efflux Pump Blocker. ACS Applied Bio Materials, 2019, 2, 4681-4686.	4.6	12
45	Photocatalytic hydrogenation of nitroarenes: supporting effect of CoO_x on TiO₂ nanoparticles. New Journal of Chemistry, 2019, 43, 748-754.	2.8	22
46	Construction of metal oxide decorated $$hbox {g-C}_{{3}}hbox {N}_{{4}}$$ g-C 3 N 4 materials with enhanced photocatalytic p. Journal of Chemical Sciences, 2019, 131, 1.	1.5	2
47	g-C3N4 promoted DBD plasma assisted dry reforming of methane. Energy, 2019, 183, 630-638.	8.8	22
48	Control over relaxor, piezo-photocatalytic and energy storage properties in Na0.5Bi0.5TiO3 via processing methodologies. Journal of Alloys and Compounds, 2019, 798, 540-552.	5.5	43
49	Gold nanoparticle decorated bismuth sulfide nanorods for enhanced photoelectrochemical hydrogen production. Journal of Materials Chemistry C, 2019, 7, 6398-6405.	5.5	32
50	NTP reactor for a single stage methane conversion to methanol: Influence of catalyst addition and effect of promoters. Chemical Engineering Journal, 2019, 372, 638-647.	12.7	24
51	Catalytic DBD plasma approach for methane partial oxidation to methanol under ambient conditions. Catalysis Today, 2019, 337, 117-125.	4.4	24
52	Cu-ZnO for visible light induced mineralization of Bisphenol-A: Impact of Cu ion doping. Journal of Environmental Chemical Engineering, 2019, 7, 103057.	6.7	16
53	Sequential treatment of crude drug effluent for the elimination of API by combined electro-assisted coagulation-photocatalytic oxidation. Journal of Water Process Engineering, 2019, 28, 195-202.	5.6	13
54	Dry Reforming of Methane in DBD Plasma over Niâ€Based Catalysts: Influence of Process Conditions and Support on Performance and Durability. Energy Technology, 2019, 7, 1801008.	3.8	26

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55	NTP-assisted partial oxidation of methane to methanol: effect of plasma parameters on glass-packed DBD. Journal Physics D: Applied Physics, 2019, 52, 015204.	2.8	15
56	Investigation on the physicochemical properties of Ce_{0.8}Eu_{0.1}M_{0.1}O_{2â^'Î´} (M = Zr, Hf, La, and Sm) solid solutions towards soot combustion. New Journal of Chemistry, 2018, 42, 5276-5283.	2.8	20
57	Organic transformations catalyzed by palladium nanoparticles on carbon nanomaterials. Journal of Chemical Sciences, 2018, 130, 1.	1.5	9
58	Fabrication of Pd/CuFe₂O₄ hybrid nanowires: a heterogeneous catalyst for Heck couplings. New Journal of Chemistry, 2018, 42, 1646-1654.	2.8	18
59	Degradation and mineralization of aqueous phenol by an atmospheric pressure catalytic plasma reactor. Journal of Environmental Chemical Engineering, 2018, 6, 3780-3786.	6.7	15
60	Ni-Mn/Î³-Al 2 O 3 assisted plasma dry reforming of methane. Catalysis Today, 2018, 309, 212-218.	4.4	68
61	Simultaneous photocatalytic degradation of p -cresol and Cr (VI) by metal oxides supported reduced graphene oxide. Molecular Catalysis, 2018, 451, 87-95.	2.0	75
62	Bimetallic Pdâ€“Au/TiO₂ Nanoparticles: An Efficient and Sustainable Heterogeneous Catalyst for Rapid Catalytic Hydrogen Transfer Reduction of Nitroarenes. ACS Omega, 2018, 3, 13065-13072.	3.5	36
63	Single step conversion of methane to methanol assisted by nonthermal plasma. Fuel Processing Technology, 2018, 179, 32-41.	7.2	29
64	Cuprous Sulfide@Carbon nanostructures based counter electrodes with cadmium sulfide/titania photoanode for liquid junction solar cells. Electrochimica Acta, 2018, 278, 374-384.	5.2	17
65	Non-thermal atmospheric pressure plasma jet for the bacterial inactivation in an aqueous medium. Science of the Total Environment, 2018, 640-641, 493-500.	8.0	41
66	Recyclable Pd/CuFe₂O₄ nanowires: a highly active catalyst for Câ€“C couplings and synthesis of benzofuran derivatives. RSC Advances, 2018, 8, 21030-21039.	3.6	19
67	Glass Beads Packed DBD-Plasma Assisted Dry Reforming of Methane. Topics in Catalysis, 2017, 60, 869-878.	2.8	35
68	Non-thermal discharge plasma promoted redox transformation of arsenic(III) and chromium(VI) in an aqueous medium. Chemical Engineering Journal, 2017, 329, 211-219.	12.7	23
69	Nanoâ€sized Recyclable PdO Supported Carbon Nanostructures for Heck Reaction: Influence of Carbon Materials. ChemistrySelect, 2017, 2, 2700-2707.	1.5	21
70	Phenol and Cr(<scp>vi</scp>) degradation with Mn ion doped ZnO under visible light photocatalysis. RSC Advances, 2017, 7, 43030-43039.	3.6	60
71	Bismuth sulfide nanocrystals and gold nanorods increase the photovoltaic response of a TiO2/CdS based cell. Solar Energy Materials and Solar Cells, 2017, 159, 296-306.	6.2	21
72	Improved Solar Cell Performance of High Quality Plasma Reduced Graphene Oxide. Plasma Processes and Polymers, 2016, 13, 929-936.	3.0	4

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73	CO₂ decomposition in a packed DBD plasma reactor: influence of packing materials. RSC Advances, 2016, 6, 39492-39499.	3.6	85
74	Micro-mechanical interaction of activated fly ash mortar and reclaimed asphalt pavement materials. Construction and Building Materials, 2016, 123, 424-435.	7.2	34
75	Conducting polymer coated graphene oxide reinforced Câ€“epoxy composites for enhanced electrical conduction. Composites Part A: Applied Science and Manufacturing, 2016, 80, 237-243.	7.6	31
76	One pot synthesis of CdS/TiO 2 hetero-nanostructures for enhanced H 2 production from water and removal of pollutants from aqueous streams. Materials Research Bulletin, 2016, 73, 377-384.	5.2	16
77	Bio-waste derived adsorbent material for methylene blue adsorption. Journal of the Taiwan Institute of Chemical Engineers, 2016, 58, 500-508.	5.3	61
78	Catalytic Plasma Reactor for Degradation and Mineralization of Pharmaceuticals and Personal Care Products. Journal of Advanced Oxidation Technologies, 2015, 18, .	0.5	2
79	Facile non thermal plasma based desorption of self assembled monolayers for achieving low temperature and low pressure Cuâ€“Cu thermo-compression bonding. RSC Advances, 2015, 5, 103643-103648.	3.6	26
80	Room temperature desorption of Self Assembled Monolayer from Copper surface for low temperature & low pressure thermocompression bonding. , 2015, , .		8
81	Effect of Plasma Etched CNFs on Toughness and Mechanical Properties of Epoxy Composites. Materials and Manufacturing Processes, 2015, 30, 387-392.	4.7	5
82	Fast and clean functionalization of MWCNTs by DBD plasma and its influence on mechanical properties of Câ€“epoxy composites. RSC Advances, 2015, 5, 62941-62945.	3.6	8
83	The reinforcement ability of ozone-treated CNFs on mechanical properties of Câ€“epoxy composites. Composite Interfaces, 2015, 22, 291-298.	2.3	3
84	Atmospheric pressure non-thermal plasma jet for the degradation of methylene blue in aqueous medium. Chemical Engineering Journal, 2015, 282, 116-122.	12.7	87
85	Influence of hydrogen peroxide on the simultaneous removal of Cr(VI) and methylene blue from aqueous medium under atmospheric pressure plasma jet. Journal of Environmental Chemical Engineering, 2015, 3, 2760-2767.	6.7	28
86	Catalytic nonthermal plasma assisted co-processing of methane and nitrous oxide for methanol production. Catalysis Today, 2015, 256, 102-107.	4.4	16
87	Study of Short-Term Catalyst Deactivation Due to Carbon Deposition during Biogas Dry Reforming on Supported Ni Catalyst. Energy & Fuels, 2015, 29, 8047-8052.	5.1	38
88	ÂEffect Of Nanoclay On The Toughness Of Epoxy And Mechanical, Impact Properties Of E-glass-epoxy Composites. Advanced Materials Letters, 2015, 6, 684-689.	0.6	40
89	The Reinforcement Ability of Plasmaâ€Etched Carbon Nanofibers on Mechanical Properties of Câ€Epoxy Composites. Plasma Processes and Polymers, 2014, 11, 588-595.	3.0	10
90	Nonthermal plasma assisted co-processing of CH4and N2O for methanol production. RSC Advances, 2014, 4, 4034-4036.	3.6	13

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91	Catalytic non-thermal plasma reactor for mineralization of endosulfan in aqueous medium: A green approach for the treatment of pesticide contaminated water. Chemical Engineering Journal, 2014, 238, 157-163.	12.7	78
92	CO2 reduction to syngas and carbon nanofibres by plasma-assisted in situ decomposition of water. International Journal of Greenhouse Gas Control, 2013, 16, 361-363.	4.6	63
93	Catalytic non-thermal plasma reactor for the decomposition of a mixture of volatile organic compounds. Journal of Chemical Sciences, 2013, 125, 673-678.	1.5	33
94	NiO/Ce_{1â^'x}Ni_xO_{2â^'Î´}as an alternative to noble metal catalysts for CO oxidation. Catalysis Science and Technology, 2013, 3, 730-736.	4.1	123
95	Low-cost adsorbents from bio-waste for the removal of dyes from aqueous solution. Environmental Science and Pollution Research, 2013, 20, 4111-4124.	5.3	73
96	Catalytic Nonâ€<scp>T</scp>hermal Plasma Reactor for Decomposition of Dilute Chlorobenzene. Plasma Processes and Polymers, 2013, 10, 1074-1080.	3.0	27
97	Catalytic DBD plasma reactor for CO oxidation by in situ N2O decomposition. Catalysis Today, 2013, 211, 53-57.	4.4	14
98	Catalytic Nonthermal Plasma Reactor for Dry Reforming of Methane. Energy & Fuels, 2013, 27, 4441-4447.	5.1	65
99	Mineralization of Phenol in Water by Catalytic Nonâ€<scp>T</scp>hermal Plasma Reactor â€“ An Ecoâ€<scp>F</scp>riendly Approach for Wastewater Treatment. Plasma Processes and Polymers, 2013, 10, 1010-1017.	3.0	23
100	Degradation and mineralization of methylene blue by dielectric barrier discharge non-thermal plasma reactor. Chemical Engineering Journal, 2013, 217, 41-47.	12.7	197
101	A Facile Approach for Direct Decomposition of Nitrous Oxide Assisted by Nonâ€Thermal Plasma. Plasma Processes and Polymers, 2013, 10, 444-450.	3.0	17
102	Facile Synthesis of Au/CeO₂ Catalyst for Low Temperature CO Oxidation. Advanced Chemistry Letters, 2013, 1, 264-271.	0.1	1
103	VISIBLE LIGHT ACTIVECu²⁺/TiO₂NANOCATALYST FOR DEGRADATION OF DICHLORVOS. International Journal of Nanoscience, 2012, 11, 1250030.	0.7	4
104	Room temperature desorption of Self Assembly Monolayer (SAM) passivated Cu for lowering the process temperature Cu-Cu bonding of 3-D ICs. , 2012, , .		1
105	Effect of amino functionalized MWCNT on the crosslink density, fracture toughness of epoxy and mechanical properties of carbonâ€“epoxy composites. Composites Part A: Applied Science and Manufacturing, 2012, 43, 2083-2086.	7.6	74
106	Abatement of mixture of volatile organic compounds (VOCs) in a catalytic non-thermal plasma reactor. Journal of Hazardous Materials, 2012, 237-238, 283-289.	12.4	133
107	Green Approach for Wastewater Treatmentâ€"Degradation and Mineralization of Aqueous Organic Pollutants by Discharge Plasma. Industrial & Engineering Chemistry Research, 2012, 51, 11097-11103.	3.7	116
108	The catalytic effect of MnOx and CoOx on the decomposition of nitrobenzene in a non-thermal plasma reactor. Chemical Engineering Journal, 2012, 180, 39-45.	12.7	63

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109	Production of hydrogen from hydrogen sulfide assisted by dielectric barrier discharge. International Journal of Hydrogen Energy, 2012, 37, 2204-2209.	7.1	50
110	Production of hydrogen and sulfur from hydrogen sulfide assisted by nonthermal plasma. Applied Energy, 2012, 95, 87-92.	10.1	91
111	Hydrogen production from hydrogen sulfide in a packed-bed DBD reactor. International Journal of Hydrogen Energy, 2012, 37, 8217-8222.	7.1	19
112	Esterification of Methacrylic acid with Ethylene glycol over Heteropolyacid supported on ZSM-5. Journal of the Korean Chemical Society, 2011, 55, 14-18.	0.2	5
113	Catalytic non-thermal plasma reactor for abatement of toluene. Chemical Engineering Journal, 2010, 160, 677-682.	12.7	90
114	Catalytic nonthermal plasma reactor for the abatement of low concentrations of isopropanol. Chemical Engineering Journal, 2010, 165, 194-199.	12.7	40
115	Nonthermal Plasma Abatement of Trichloroethylene Enhanced by Photocatalysis. Journal of Physical Chemistry C, 2007, 111, 4315-4318.	3.1	49
116	Novel catalytic non-thermal plasma reactor for the abatement of VOCs. Chemical Engineering Journal, 2007, 134, 78-83.	12.7	120
117	Improved performance of non-thermal plasma reactor during decomposition of trichloroethylene: Optimization of the reactor geometry and introduction of catalytic electrode. Applied Catalysis B: Environmental, 2007, 74, 270-277.	20.2	118
118	Catalytic abatement of volatile organic compounds assisted by non-thermal plasma. Applied Catalysis B: Environmental, 2006, 65, 150-156.	20.2	176
119	Catalytic abatement of volatile organic compounds assisted by non-thermal plasma. Applied Catalysis B: Environmental, 2006, 65, 157-162.	20.2	66
120	Dynamic behaviour of activated carbon catalysts during ozone decomposition at room temperature. Applied Catalysis B: Environmental, 2005, 61, 98-106.	20.2	106
121	Partial oxidation of toluene by O2 over mesoporous Crâ€“AlPO. Catalysis Communications, 2002, 3, 45-50.	3.3	36