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	Synthesis, optoelectronic properties and applications of halide perovskites. Chemical Society Reviews, 2020, 49, 2869-2885.	38.1	282
2	Degradation and mineralization of methylene blue by dielectric barrier discharge non-thermal plasma reactor. Chemical Engineering Journal, 2013, 217, 41-47.	12.7	197
3	Catalytic abatement of volatile organic compounds assisted by non-thermal plasma. Applied Catalysis B: Environmental, 2006, 65, 150-156.	20.2	176
4	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
5	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
6	Novel catalytic non-thermal plasma reactor for the abatement of VOCs. Chemical Engineering Journal, 2007, 134, 78-83.	12.7	120
7	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
8	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
9	Dynamic behaviour of activated carbon catalysts during ozone decomposition at room temperature. Applied Catalysis B: Environmental, 2005, 61, 98-106.	20.2	106
10	Production of hydrogen and sulfur from hydrogen sulfide assisted by nonthermal plasma. Applied Energy, 2012, 95, 87-92.	10.1	91
11	Catalytic non-thermal plasma reactor for abatement of toluene. Chemical Engineering Journal, 2010, 160, 677-682.	12.7	90
12	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
13	CO₂ decomposition in a packed DBD plasma reactor: influence of packing materials. RSC Advances, 2016, 6, 39492-39499.	3.6	85
14	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
15	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
16	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
17	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
18	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

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19	Ni-Mn/Î³-Al 2 O 3 assisted plasma dry reforming of methane. Catalysis Today, 2018, 309, 212-218.	4.4	68
20	Catalytic abatement of volatile organic compounds assisted by non-thermal plasma. Applied Catalysis B: Environmental, 2006, 65, 157-162.	20.2	66
21	Catalytic Nonthermal Plasma Reactor for Dry Reforming of Methane. Energy & Fuels, 2013, 27, 4441-4447.	5.1	65
22	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
23	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
24	Bio-waste derived adsorbent material for methylene blue adsorption. Journal of the Taiwan Institute of Chemical Engineers, 2016, 58, 500-508.	5.3	61
25	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
26	Production of hydrogen from hydrogen sulfide assisted by dielectric barrier discharge. International Journal of Hydrogen Energy, 2012, 37, 2204-2209.	7.1	50
27	Mo-doped BiVO4@reduced graphene oxide composite as an efficient photoanode for photoelectrochemical water splitting. Catalysis Today, 2019, 325, 73-80.	4.4	50
28	Nonthermal Plasma Abatement of Trichloroethylene Enhanced by Photocatalysis. Journal of Physical Chemistry C, 2007, 111, 4315-4318.	3.1	49
29	Emerging materials for plasmon-assisted photoelectrochemical water splitting. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2022, 51, 100472.	11.6	44
30	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
31	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
32	Catalytic nonthermal plasma reactor for the abatement of low concentrations of isopropanol. Chemical Engineering Journal, 2010, 165, 194-199.	12.7	40
33	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
34	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
35	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
36	Ni and Cu oxide supported Î³-Al2O3 packed DBD plasma reactor for CO2 activation. Journal of CO2 Utilization, 2021, 44, 101400.	6.8	38

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37	Partial oxidation of toluene by O2 over mesoporous Crâ€“AlPO. Catalysis Communications, 2002, 3, 45-50.	3.3	36
38	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
39	Glass Beads Packed DBD-Plasma Assisted Dry Reforming of Methane. Topics in Catalysis, 2017, 60, 869-878.	2.8	35
40	Micro-mechanical interaction of activated fly ash mortar and reclaimed asphalt pavement materials. Construction and Building Materials, 2016, 123, 424-435.	7.2	34
41	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
42	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
43	Gold nanoparticle decorated bismuth sulfide nanorods for enhanced photoelectrochemical hydrogen production. Journal of Materials Chemistry C, 2019, 7, 6398-6405.	5.5	32
44	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
45	Single step conversion of methane to methanol assisted by nonthermal plasma. Fuel Processing Technology, 2018, 179, 32-41.	7.2	29
46	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
47	Toxicity of nanomaterials due to photochemical degradation and the release of heavy metal ions. Nanoscale, 2020, 12, 22049-22058.	5.6	28
48	Catalytic Nonâ€<scp>T</scp>hermal Plasma Reactor for Decomposition of Dilute Chlorobenzene. Plasma Processes and Polymers, 2013, 10, 1074-1080.	3.0	27
49	TiO₂ Photoanodes Sensitized with Bi₂Se₃ Nanoflowers for Visibleâ€“Near-Infrared Photoelectrochemical Water Splitting. ACS Applied Nano Materials, 2021, 4, 739-745.	5.0	27
50	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
51	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
52	A facile method to decompose CO2 using a g-C3N4-assisted DBD plasma reactor. Environmental Research, 2020, 183, 109286.	7.5	25
53	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
54	Catalytic DBD plasma approach for methane partial oxidation to methanol under ambient conditions. Catalysis Today, 2019, 337, 117-125.	4.4	24

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55	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
56	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
57	Photocatalytic hydrogenation of nitroarenes: supporting effect of CoO_x on TiO₂ nanoparticles. New Journal of Chemistry, 2019, 43, 748-754.	2.8	22
58	g-C3N4 promoted DBD plasma assisted dry reforming of methane. Energy, 2019, 183, 630-638.	8.8	22
59	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
60	Nanoâ€sized Recyclable PdO Supported Carbon Nanostructures for Heck Reaction: Influence of Carbon Materials. ChemistrySelect, 2017, 2, 2700-2707.	1.5	21
61	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
62	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
63	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
64	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
65	Facile Synthesis and Photoelectrochemical Performance of a Bi₂S₃@rGO Nanocomposite Photoanode for Efficient Water Splitting. Energy & Fuels, 2021, 35, 6315-6321.	5.1	20
66	Hydrogen production from hydrogen sulfide in a packed-bed DBD reactor. International Journal of Hydrogen Energy, 2012, 37, 8217-8222.	7.1	19
67	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
68	Fabrication of Pd/CuFe₂O₄ hybrid nanowires: a heterogeneous catalyst for Heck couplings. New Journal of Chemistry, 2018, 42, 1646-1654.	2.8	18
69	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
70	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
71	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
72	Catalytic nonthermal plasma assisted co-processing of methane and nitrous oxide for methanol production. Catalysis Today, 2015, 256, 102-107.	4.4	16

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73	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
74	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
75	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
76	Plasmonic nanometal decorated photoanodes for efficient photoelectrochemical water splitting. Catalysis Today, 2021, 379, 1-6.	4.4	16
77	Mechano-optical Modulation of Excitons and Carrier Recombination in Self-Assembled Halide Perovskite Quantum Dots. ACS Nano, 2022, 16, 160-168.	14.6	16
78	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
79	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
80	Oxidative treatment of crude pharmaceutical industry effluent by hydrodynamic cavitation. Journal of Environmental Chemical Engineering, 2020, 8, 104281.	6.7	15
81	A photoanode with plasmonic nanoparticles of earth abundant bismuth for photoelectrochemical reactions. Nanoscale Advances, 2020, 2, 5591-5599.	4.6	15
82	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
83	Catalytic DBD plasma reactor for CO oxidation by in situ N2O decomposition. Catalysis Today, 2013, 211, 53-57.	4.4	14
84	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
85	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
86	Rational design of TiO2/BiSbS3 heterojunction for efficient solar water splitting. Sustainable Energy Technologies and Assessments, 2022, 49, 101775.	2.7	14
87	Nonthermal plasma assisted co-processing of CH4and N2O for methanol production. RSC Advances, 2014, 4, 4034-4036.	3.6	13
88	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
89	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
90	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

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91	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
92	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
93	Facile, Labelâ€Free, Nonâ€Enzymatic Electrochemical Nanobiosensor Platform as a Significant Step towards Continuous Glucose Monitoring. ChemistrySelect, 2021, 6, 11086-11094.	1.5	10
94	Methane decomposition by plasma-packed bed non-thermal plasma reactor. Chemical Engineering Science, 2022, 258, 117779.	3.8	10
95	Organic transformations catalyzed by palladium nanoparticles on carbon nanomaterials. Journal of Chemical Sciences, 2018, 130, 1.	1.5	9
96	Electrocatalytic performance of cobalt doped copper bismuth oxide for glucose sensing and photoelectrochemical applications. Inorganic Chemistry Communication, 2020, 119, 108112.	3.9	9
97	Enhanced synergy by plasma reduced Pd nanoparticles on in-plasma catalytic methane conversion to liquid oxygenates. Catalysis Communications, 2020, 147, 106139.	3.3	9
98	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
99	Palladium Nanoparticles on Silica Nanospheres for Switchable Reductive Coupling of Nitroarenes. Catalysis Letters, 2020, 150, 2309-2321.	2.6	9
100	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
101	Room temperature desorption of Self Assembled Monolayer from Copper surface for low temperature & low pressure thermocompression bonding. , 2015, , .		8
102	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
103	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
104	Green oxidation of alkylaromatics using molecular oxygen over mesoporous manganese silicate catalysts. Dalton Transactions, 2020, 49, 9710-9718.	3.3	7
105	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
106	Effect of Plasma Etched CNFs on Toughness and Mechanical Properties of Epoxy Composites. Materials and Manufacturing Processes, 2015, 30, 387-392.	4.7	5
107	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
108	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

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109	VISIBLE LIGHT ACTIVECu²⁺/TiO₂NANOCATALYST FOR DEGRADATION OF DICHLORVOS. International Journal of Nanoscience, 2012, 11, 1250030.	0.7	4
110	Improved Solar Cell Performance of High Quality Plasma Reduced Graphene Oxide. Plasma Processes and Polymers, 2016, 13, 929-936.	3.0	4
111	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
112	Room-Temperature Toluene Decomposition by Catalytic Non-Thermal Plasma Reactor. IEEE Transactions on Plasma Science, 2022, 50, 1416-1422.	1.3	4
113	Oxidation of Toluene by Ozone over Surface-Modified Î³-Al2O3: Effect of Ag Addition. Catalysts, 2022, 12, 421.	3.5	4
114	The reinforcement ability of ozone-treated CNFs on mechanical properties of Câ€“epoxy composites. Composite Interfaces, 2015, 22, 291-298.	2.3	3
115	Heterogeneous Direct Acylation Strategy to Diaryl Ketones and Their Application to 1, 3â€Dihydroisobenzofurans. ChemistrySelect, 2020, 5, 1349-1352.	1.5	3
116	Catalytic Plasma Reactor for Degradation and Mineralization of Pharmaceuticals and Personal Care Products. Journal of Advanced Oxidation Technologies, 2015, 18, .	0.5	2
117	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
118	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
119	Switching of support materials for the hydrogenation of nitroarenes: A review. Catalysis Reviews - Science and Engineering, 2024, 66, 259-342.	12.9	2
120	Room temperature desorption of Self Assembly Monolayer (SAM) passivated Cu for lowering the process temperature Cu-Cu bonding of 3-D ICs. , 2012, , .		1
121	Facile Synthesis of Au/CeO₂ Catalyst for Low Temperature CO Oxidation. Advanced Chemistry Letters, 2013, 1, 264-271.	0.1	1