

Subbaiah Muthu Prabhu

List of Publications by Year in descending order

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68
papers

3,776
citations

126708

33
h-index

128067

60
g-index

68
all docs

68
docs citations

68
times ranked

3782
citing authors

#	ARTICLE	IF	CITATIONS
1	Removal of heavy metals from water sources in the developing world using low-cost materials: A review. <i>Chemosphere</i> , 2019, 229, 142-159.	4.2	579
2	Removal of contaminants of emerging concern by metal-organic framework nanoadsorbents: A review. <i>Chemical Engineering Journal</i> , 2019, 369, 928-946.	6.6	294
3	Enhanced adsorption of bisphenol A and sulfamethoxazole by a novel magnetic CuZnFe ₂ O ₄ "biochar composite. <i>Bioresource Technology</i> , 2019, 281, 179-187.	4.8	210
4	Heterogeneous activation of persulfate by reduced graphene oxide "elemental silver/magnetite nanohybrids for the oxidative degradation of pharmaceuticals and endocrine disrupting compounds in water. <i>Applied Catalysis B: Environmental</i> , 2018, 225, 91-99.	10.8	144
5	Adsorption of selected dyes on Ti ₃ C ₂ T _x MXene and Al-based metal-organic framework. <i>Ceramics International</i> , 2020, 46, 2960-2968.	2.3	123
6	Next-Generation Multifunctional Carbon "Metal Nanohybrids for Energy and Environmental Applications. <i>Environmental Science & Technology</i> , 2019, 53, 7265-7287.	4.6	109
7	Novel Z-scheme Ag ₃ PO ₄ /Fe ₃ O ₄ -activated biochar photocatalyst with enhanced visible-light catalytic performance toward degradation of bisphenol A. <i>Journal of Hazardous Materials</i> , 2020, 398, 123025.	6.5	105
8	Mono-, Di-, and Tricarboxylic Acid Facilitated Lanthanum-Based Organic Frameworks: Insights into the Structural Stability and Mechanistic Approach for Superior Adsorption of Arsenate from Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 6917-6928.	3.2	101
9	Catalytic oxidation of naproxen in cobalt spinel ferrite decorated Ti ₃ C ₂ T _x MXene activated persulfate system: Mechanisms and pathways. <i>Chemical Engineering Journal</i> , 2021, 407, 127842.	6.6	95
10	Effective removal of Cr(VI) and methyl orange from the aqueous environment using two-dimensional (2D) Ti ₃ C ₂ T _x MXene nanosheets. <i>Ceramics International</i> , 2021, 47, 3692-3698.	2.3	93
11	Removal of selected endocrine-disrupting compounds using Al-based metal organic framework: Performance and mechanism of competitive adsorption. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 79, 345-352.	2.9	83
12	Review of adsorption "membrane hybrid systems for water and wastewater treatment. <i>Chemosphere</i> , 2022, 286, 131916.	4.2	83
13	Comprehensive evaluation of the removal mechanism of carbamazepine and ibuprofen by metal organic framework. <i>Chemosphere</i> , 2019, 235, 527-537.	4.2	77
14	Two-dimensional (2D) Ti ₃ C ₂ T _x MXene nanosheets with superior adsorption behavior for phosphate and nitrate ions from the aqueous environment. <i>Ceramics International</i> , 2021, 47, 732-739.	2.3	71
15	Mechanistic performance of polyaniline-substituted hexagonal boron nitride composite as a highly efficient adsorbent for the removal of phosphate, nitrate, and hexavalent chromium ions from an aqueous environment. <i>Applied Surface Science</i> , 2020, 511, 145543.	3.1	69
16	Enriched fluoride sorption using chitosan supported mixed metal oxides beads: Synthesis, characterization and mechanism. <i>Journal of Water Process Engineering</i> , 2014, 2, 96-104.	2.6	67
17	Accelerated photocatalytic degradation of organic pollutants over carbonate-rich lanthanum-substituted zinc spinel ferrite assembled reduced graphene oxide by ultraviolet (UV)-activated persulfate. <i>Chemical Engineering Journal</i> , 2020, 393, 124733.	6.6	67
18	Comprehensive evaluation on removal of lead by graphene oxide and metal organic framework. <i>Chemosphere</i> , 2019, 231, 82-92.	4.2	65

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19	Synthesis and characterization of graphene oxide-doped nano-hydroxyapatite and its adsorption performance of toxic diazo dyes from aqueous solution. <i>Journal of Molecular Liquids</i> , 2018, 269, 746-754.	2.3	58
20	Synthesis of surface coated hydroxyapatite powders for fluoride removal from aqueous solution. <i>Powder Technology</i> , 2014, 268, 306-315.	2.1	55
21	Assembly of nano-sized hydroxyapatite onto graphene oxide sheets via in-situ fabrication method and its prospective application for defluoridation studies. <i>Chemical Engineering Journal</i> , 2016, 300, 334-342.	6.6	52
22	Highly efficient organic dye removal from waters by magnetically recoverable La ₂ O ₂ CO ₃ /ZnFe ₂ O ₄ -reduced graphene oxide nanohybrid. <i>Ceramics International</i> , 2019, 45, 19247-19256.	2.3	52
23	Effective adsorption of oil droplets from oil-in-water emulsion using metal ions encapsulated biopolymers: Role of metal ions and their mechanism in oil removal. <i>International Journal of Biological Macromolecules</i> , 2018, 112, 294-305.	3.6	44
24	Novel one-pot synthesis of dicarboxylic acids mediated alginate-zirconium biopolymeric complex for defluoridation of water. <i>Carbohydrate Polymers</i> , 2015, 120, 60-68.	5.1	43
25	Enhanced sonophotocatalytic degradation of bisphenol A using bimetal sulfide-intercalated MXenes, 2D/2D nanocomposite. <i>Separation and Purification Technology</i> , 2020, 250, 117178.	3.9	43
26	Effective adsorption of hexavalent chromium using biopolymer assisted oxyhydroxide materials from aqueous solution. <i>Reactive and Functional Polymers</i> , 2017, 117, 16-24.	2.0	42
27	Effective sequestration of tetracycline and ciprofloxacin from aqueous solutions by Al-based metal organic framework and reduced graphene oxide immobilized alginate biosorbents. <i>Chemical Engineering Journal</i> , 2022, 450, 138068.	6.6	42
28	A simple one-pot in-situ method for the synthesis of aluminum and lanthanum binary oxyhydroxides in chitosan template towards defluoridation of water. <i>Chemical Engineering Journal</i> , 2016, 283, 1081-1089.	6.6	39
29	A Mechanistic Approach for the Synthesis of Carboxylate-Rich Carbonaceous Biomass-Doped Lanthanum-Oxalate Nanocomplex for Arsenate Adsorption. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 6052-6063.	3.2	39
30	Heterogeneous sonocatalytic degradation of an anionic dye in aqueous solution using a magnetic lanthanum dioxide carbonate-doped zinc ferrite-reduced graphene oxide nanostructure. <i>Ecotoxicology and Environmental Safety</i> , 2019, 182, 109396.	2.9	39
31	Synthesis of magnetic chitosan biopolymeric spheres and their adsorption performances for PFOA and PFOS from aqueous environment. <i>Carbohydrate Polymers</i> , 2021, 267, 118165.	5.1	39
32	Magnesium ferrite-reinforced polypyrrole hybrids as an effective adsorbent for the removal of toxic ions from aqueous solutions: Preparation, characterization, and adsorption experiments. <i>Journal of Hazardous Materials</i> , 2021, 408, 124892.	6.5	37
33	Designed synthesis of sulfide-rich bimetallic-assembled graphene oxide sheets as flexible materials and self-tuning adsorption cum oxidation mechanisms of arsenic from water. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12253-12265.	5.2	36
34	Chemistry of defluoridation by one-pot synthesized dicarboxylic acids mediated polyacrylamide-zirconium complex. <i>Chemical Engineering Journal</i> , 2015, 262, 224-234.	6.6	34
35	A dendrimer-like hyper branched chitosan beads toward fluoride adsorption from water. <i>International Journal of Biological Macromolecules</i> , 2015, 78, 280-286.	3.6	33
36	Synthesis and characterization of novel magnetic Zr-MnFe ₂ O ₄ @rGO nanohybrid for efficient removal of PFOA and PFOS from aqueous solutions. <i>Applied Surface Science</i> , 2020, 528, 146579.	3.1	33

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37	Synthesis and characterization of defective UiO-66 for efficient co-immobilization of arsenate and fluoride from single/binary solutions. <i>Environmental Pollution</i> , 2021, 278, 116841.	3.7	33
38	Defluoridation of water using synthesized Zr(IV) encapsulated silica gel/chitosan biocomposite: Adsorption isotherms and kinetic studies. <i>Desalination and Water Treatment</i> , 2015, 53, 3592-3603.	1.0	32
39	Design and synthesis of biopolymer-derived porous graphitic carbon covered iron-organic frameworks for depollution of arsenic from waters. <i>Chemosphere</i> , 2020, 254, 126769.	4.2	32
40	Lanthanum-substituted bimetallic magnetic materials assembled carboxylate-rich graphene oxide nanohybrids as highly efficient adsorbent for perfluorooctanoic acid adsorption from aqueous solutions. <i>Applied Surface Science</i> , 2020, 509, 144716.	3.1	31
41	Synthesis of metal ion loaded silica gel/chitosan biocomposite and its fluoride uptake studies from water. <i>Journal of Water Process Engineering</i> , 2014, 3, 144-150.	2.6	30
42	Development of amine functionalized co-polymeric resins for selective fluoride sorption. <i>Journal of Fluorine Chemistry</i> , 2013, 153, 143-150.	0.9	28
43	Synthesis of modulator-driven highly stable zirconium-fumarate frameworks and mechanistic investigations of their arsenite and arsenate adsorption from aqueous solutions. <i>CrystEngComm</i> , 2019, 21, 2320-2332.	1.3	28
44	Hydrothermal synthesis of hydroxyapatite-reduced graphene oxide (1D@2D) hybrids with enhanced selective adsorption properties for methyl orange and hexavalent chromium from aqueous solutions. <i>Chemosphere</i> , 2021, 276, 130200.	4.2	28
45	Comparative evaluation of Fe-, Zr-, and La-based metal-organic frameworks derived from recycled PET plastic bottles for arsenate removal. <i>Chemosphere</i> , 2022, 294, 133672.	4.2	27
46	Defluoridation of water by Tea - bag model using La ³⁺ modified synthetic resin@chitosan biocomposite. <i>International Journal of Biological Macromolecules</i> , 2016, 91, 1002-1009.	3.6	26
47	Synthesis of sucrose-derived porous carbon-doped Zr _x La _{1-x} OOH materials and their superior performance for the simultaneous immobilization of arsenite and fluoride from binary systems. <i>Chemical Engineering Journal</i> , 2017, 325, 1-13.	6.6	26
48	Enhanced adsorption of perchlorate by gemini surfactant-modified montmorillonite: Synthesis, characterization and their adsorption mechanism. <i>Applied Clay Science</i> , 2018, 163, 46-55.	2.6	26
49	Azo dye decolorization by ZVI under circum-neutral pH conditions and the characterization of ZVI corrosion products. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 47, 86-93.	2.9	23
50	Recent advances in effective capture of inorganic mercury from aqueous solutions through sulfurized 2D-material-based adsorbents. <i>Journal of Materials Chemistry A</i> , 2021, 9, 18086-18101.	5.2	22
51	Defluoridation of water using chitosan assisted ethylenediamine functionalized synthetic polymeric blends. <i>International Journal of Biological Macromolecules</i> , 2014, 70, 621-627.	3.6	18
52	Defluoridation of water using dicarboxylic acids mediated chitosan-polyaniline/zirconium biopolymeric complex. <i>International Journal of Biological Macromolecules</i> , 2016, 85, 16-22.	3.6	18
53	A mechanistic investigation of highly stable nano ZrO ₂ decorated nitrogen-rich azacytosine tethered graphene oxide-based dendrimer for the removal of arsenite from water. <i>Chemical Engineering Journal</i> , 2019, 370, 1474-1484.	6.6	18
54	Boron nitride-based nanomaterials as adsorbents in water: A review. <i>Separation and Purification Technology</i> , 2022, 288, 120637.	3.9	18

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55	Fabrication of lanthanum methanoate on sucrose-derived biomass carbon nano hybrid for the efficient removal of arsenate from water. <i>Chemosphere</i> , 2021, 262, 127596.	4.2	14
56	Effect of metal ions loaded onto iminodiacetic acid functionalized cation exchange resin for selective fluoride removal. <i>Desalination and Water Treatment</i> , 2014, 52, 2527-2536.	1.0	13
57	Prospects of non-noble metal single atoms embedded in two-dimensional (2D) carbon and non-carbon-based structures in electrocatalytic applications. <i>Coordination Chemistry Reviews</i> , 2022, 467, 214613.	9.5	13
58	Ethylene glycol-induced metal alkoxides via phase-transfer catalyst as multi-talented adsorbents for boosted adsorption performance of toxic anions/oxyanions from waters. <i>Separation and Purification Technology</i> , 2020, 235, 116247.	3.9	10
59	Self-tuning tetragonal zirconia-based bimetallic nano(hydr)oxides as superior and recyclable adsorbents in arsenic-tolerant environment: Template-free in and ex situ synthetic methods, stability, and mechanisms. <i>Chemical Engineering Journal</i> , 2020, 390, 124573.	6.6	10
60	MXene-based O/Se-rich bimetallic nanocomposites for high performance solid-state symmetric supercapacitors. <i>Journal of Solid State Chemistry</i> , 2022, 306, 122727.	1.4	10
61	Fabrication of Chitosan-Reinforced ZrO ₂ /Al ₂ O ₃ Nanocomposites and Their Arsenite and Fluoride Depollution Densities from Single/Binary Systems. <i>ChemistrySelect</i> , 2017, 2, 6375-6387.	0.7	9
62	Treatment of emulsified oil using biopolymer assisted materials. <i>Polymer Composites</i> , 2018, 39, E261.	2.3	8
63	Defluoridation of Water by Graphene Oxide Supported Needle-Like Complex Adsorbents. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2016, 26, 834-844.	1.9	7
64	Efficient and selective sequestration of perfluorinated compounds and hexavalent chromium ions using a multifunctional spinel matrix decorated carbon backbone N-rich polymer and their mechanistic investigations. <i>Journal of Molecular Liquids</i> , 2021, 326, 115336.	2.3	7
65	Oxalic acid-induced assembly of Co _x Ni _{1-x} -bimetallic polyaniline nanocomposite: a bifunctional material for supercapacitor and chromium removal applications. <i>Journal of Nanostructure in Chemistry</i> , 2022, 12, 481-494.	5.3	7
66	Effective and selective removal of organic pollutants from aqueous solutions using 1D hydroxyapatite-decorated 2D reduced graphene oxide nanocomposite. <i>Journal of Molecular Liquids</i> , 2021, 331, 115795.	2.3	6
67	Construction of ternary (1D/2D/3D) Fe ₂ O ₃ -supported micro pillared Cu-based MOF on chitosan with improved photocatalytic behavior on removal of paraquat. <i>Environmental Science and Pollution Research</i> , 2023, 30, 24876-24889.	2.7	2
68	Synthesis and Modification Strategies of Chitosan and Its Interaction with Metal Ions. <i>Advances in Polymer Science</i> , 2021, , 75-104.	0.4	1