Xing Xu

List of Publications by Year in descending order

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120 papers	8,613 citations	44069 48 h-index	46799 89 g-index
120 all docs	120 docs citations	120 times ranked	5533 citing authors

#	Article	IF	Citations
1	Single-atom catalysis in advanced oxidation processes for environmental remediation. Chemical Society Reviews, 2021, 50, 5281-5322.	38.1	502
2	In-situ pyrolysis of Enteromorpha as carbocatalyst for catalytic removal of organic contaminants: Considering the intrinsic N/Fe in Enteromorpha and non-radical reaction. Applied Catalysis B: Environmental, 2019, 250, 382-395.	20.2	418
3	Adsorption of hexavalent chromium from aqueous solution by modified corn stalk: A fixed-bed column study. Bioresource Technology, 2012, 113, 114-120.	9.6	403
4	Co3O4 anchored in N, S heteroatom co-doped porous carbons for degradation of organic contaminant: role of pyridinic N-Co binding and high tolerance of chloride. Applied Catalysis B: Environmental, 2021, 282, 119484.	20.2	305
5	Sulfate saturated biosorbent-derived Co-S@NC nanoarchitecture as an efficient catalyst for peroxymonosulfate activation. Applied Catalysis B: Environmental, 2020, 262, 118302.	20.2	289
6	Engineered carbon supported single iron atom sites and iron clusters from Fe-rich Enteromorpha for Fenton-like reactions via nonradical pathways. Applied Catalysis B: Environmental, 2021, 287, 119963.	20.2	271
7	Enhanced degradation of clothianidin in peroxymonosulfate/catalyst system via core-shell FeMn @ N-C and phosphate surrounding. Applied Catalysis B: Environmental, 2020, 267, 118717.	20.2	267
8	Removal of sulfamethoxazole from water via activation of persulfate by Fe3C@NCNTs including mechanism of radical and nonradical process. Chemical Engineering Journal, 2019, 375, 122004.	12.7	244
9	FTIR, Raman, and XPS analysis during phosphate, nitrate and Cr(VI) removal by amine cross-linking biosorbent. Journal of Colloid and Interface Science, 2016, 468, 313-323.	9.4	230
10	Novel lignin-based single atom catalysts as peroxymonosulfate activator for pollutants degradation: Role of single cobalt and electron transfer pathway. Applied Catalysis B: Environmental, 2021, 286, 119910.	20.2	209
11	Fe/Mn nanoparticles encapsulated in nitrogen-doped carbon nanotubes as a peroxymonosulfate activator for acetamiprid degradation. Environmental Science: Nano, 2019, 6, 1799-1811.	4.3	197
12	Adsorptionâ€“desorption behavior of magnetic amine/Fe3O4 functionalized biopolymer resin towards anionic dyes from wastewater. Bioresource Technology, 2016, 210, 123-130.	9.6	175
13	Activation of peroxymonosulfate via mediated electron transfer mechanism on single-atom Fe catalyst for effective organic pollutants removal. Applied Catalysis B: Environmental, 2021, 299, 120714.	20.2	173
14	Effect of phosphate on peroxymonosulfate activation: Accelerating generation of sulfate radical and underlying mechanism. Applied Catalysis B: Environmental, 2021, 298, 120532.	20.2	172
15	Unveiling the Origins of Selective Oxidation in Single-Atom Catalysis via Coâ€“N₄â€“C Intensified Radical and Nonradical Pathways. Environmental Science & Technology, 2022, 56, 11635-11645.	10.0	159
16	Three-dimensional porous graphene-like biochar derived from Enteromorpha as a persulfate activator for sulfamethoxazole degradation: Role of graphitic N and radicals transformation. Journal of Hazardous Materials, 2020, 399, 123039.	12.4	152
17	Adsorption of nitrate from aqueous solution by magnetic amine-crosslinked biopolymer based corn stalk and its chemical regeneration property. Journal of Hazardous Materials, 2016, 304, 280-290.	12.4	138
18	Carbon-based single atom catalyst: Synthesis, characterization, DFT calculations. Chinese Chemical Letters, 2022, 33, 663-673.	9.0	126

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19	Removal of anionic pollutants from liquids by biomass materials: A review. Journal of Molecular Liquids, 2016, 215, 565-595.	4.9	125
20	Preparation of agricultural by-product based anion exchanger and its utilization for nitrate and phosphate removal. Bioresource Technology, 2010, 101, 8558-8564.	9.6	124
21	Nitrogen-doped carbon nanotubes encapsulating Fe/Zn nanoparticles as a persulfate activator for sulfamethoxazole degradation: role of encapsulated bimetallic nanoparticles and nonradical reaction. Environmental Science: Nano, 2020, 7, 1444-1453.	4.3	113
22	High-capacity adsorption of dissolved hexavalent chromium using amine-functionalized magnetic corn stalk composites. Bioresource Technology, 2015, 190, 550-557.	9.6	103
23	Adsorption of phosphate from aqueous solutions onto modified wheat residue: Characteristics, kinetic and column studies. Colloids and Surfaces B: Biointerfaces, 2009, 70, 46-52.	5.0	94
24	Removal of Cu(II) and Cr(VI) from wastewater by an amphoteric sorbent based on cellulose-rich biomass. Carbohydrate Polymers, 2014, 111, 788-796.	10.2	94
25	Preparation and utilization of wheat straw bearing amine groups for the sorption of acid and reactive dyes from aqueous solutions. Journal of Hazardous Materials, 2010, 182, 1-9.	12.4	92
26	One-step synthesis of peanut hull/graphene aerogel for highly efficient oil-water separation. Journal of Cleaner Production, 2019, 207, 764-771.	9.3	89
27	Characteristics of amine-crosslinked wheat straw and its adsorption mechanisms for phosphate and chromium (VI) removal from aqueous solution. Carbohydrate Polymers, 2011, 84, 1054-1060.	10.2	88
28	Recycling exhausted magnetic biochar with adsorbed Cu2+ as a cost-effective permonosulfate activator for norfloxacin degradation: Cu contribution and mechanism. Journal of Hazardous Materials, 2021, 413, 125413.	12.4	87
29	Improving peroxymonosulfate activation by copper ion-saturated adsorbent-based single atom catalysts for the degradation of organic contaminants: electron-transfer mechanism and the key role of Cu single atoms. Journal of Materials Chemistry A, 2021, 9, 11604-11613.	10.3	85
30	Nitrate adsorption by stratified wheat straw resin in lab-scale columns. Chemical Engineering Journal, 2013, 226, 1-6.	12.7	82
31	Characteristics of diethylenetriamine-crosslinked cotton stalk/wheat stalk and their biosorption capacities for phosphate. Journal of Hazardous Materials, 2011, 192, 1690-1696.	12.4	78
32	One-step synthesis of â€œnuclear-shellâ€•structure iron-carbon nanocomposite as a persulfate activator for bisphenol A degradation. Chemical Engineering Journal, 2020, 382, 122780.	12.7	77
33	Co/Fe and Co/Al layered double oxides ozone catalyst for the deep degradation of aniline: Preparation, characterization and kinetic model. Science of the Total Environment, 2020, 715, 136982.	8.0	73
34	Nitrate removal from aqueous solution by Arundo donax L. reed based anion exchange resin. Journal of Hazardous Materials, 2012, 203-204, 86-92.	12.4	70
35	Highly-efficient degradation of triclosan attributed to peroxymonosulfate activation by heterogeneous catalyst g-C3N4/MnFe2O4. Chemical Engineering Journal, 2020, 391, 123554.	12.7	70
36	Rational design to manganese and oxygen co-doped polymeric carbon nitride for efficient nonradical activation of peroxymonosulfate and the mechanism insight. Chemical Engineering Journal, 2022, 430, 132751.	12.7	70

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37	Sorption of phosphate onto giant reed based adsorbent: FTIR, Raman spectrum analysis and dynamic sorption/desorption properties in filter bed. Bioresource Technology, 2011, 102, 5278-5282.	9.6	64
38	Removal of phosphate and chromium(<scp>vi</scp>) from liquids by an amine-crosslinked nano-Fe₃O₄ biosorbent derived from corn straw. RSC Advances, 2016, 6, 47237-47248.	3.6	62
39	Selective removal of phosphate by dual Zr and La hydroxide/cellulose-based bio-composites. Journal of Colloid and Interface Science, 2019, 533, 692-699.	9.4	62
40	Sorption of nitrate onto amine-crosslinked wheat straw: Characteristics, column sorption and desorption properties. Journal of Hazardous Materials, 2011, 186, 206-211.	12.4	61
41	Characteristics of cellulosic amine-crosslinked copolymer and its sorption properties for Cr(VI) from aqueous solutions. Journal of Hazardous Materials, 2011, 189, 420-426.	12.4	57
42	Modified biogas residues as an eco-friendly and easily-recoverable biosorbent for nitrate and phosphate removals from surface water. Journal of Hazardous Materials, 2020, 382, 121073.	12.4	56
43	Co-monomer polymer anion exchange resin for removing Cr(VI) contaminants: Adsorption kinetics, mechanism and performance. Science of the Total Environment, 2020, 709, 136002.	8.0	56
44	Preferable uptake of phosphate by hydrous zirconium oxide nanoparticles embedded in quaternary-ammonium Chinese reed. Journal of Colloid and Interface Science, 2017, 496, 118-129.	9.4	53
45	Enhanced As(Ð¨) removal from aqueous solutions by recyclable Cu@MNM composite membranes via synergistic oxidation and absorption. Water Research, 2020, 168, 115147.	11.3	53
46	The enhanced catalytic degradation of sulfamethoxazole over Fe@nitrogen-doped carbon-supported nanocomposite: Insight into the mechanism. Chemical Engineering Journal, 2022, 439, 135784.	12.7	53
47	Waste-to-resources: Green preparation of magnetic biogas residues-based biochar for effective heavy metal removals. Science of the Total Environment, 2020, 737, 140283.	8.0	52
48	Evaluation of molecular weight, chain architectures and charge densities of various lignin-based flocculants for dye wastewater treatment. Chemosphere, 2019, 215, 214-226.	8.2	51
49	Nitrate adsorption by multiple biomaterial based resins: Application of pilot-scale and lab-scale products. Chemical Engineering Journal, 2013, 234, 397-405.	12.7	50
50	Optimized conditions in preparation of giant reed quaternary amino anion exchanger for phosphate removal. Chemical Engineering Journal, 2010, 157, 161-167.	12.7	49
51	Column adsorption and regeneration study of magnetic biopolymer resin for perchlorate removal in presence of nitrate and phosphate. Journal of Cleaner Production, 2019, 213, 762-775.	9.3	49
52	Highly efficient and mild electrochemical degradation of bentazon by nano-diamond doped PbO2 anode with reduced Ti nanotube as the interlayer. Journal of Colloid and Interface Science, 2020, 575, 254-264.	9.4	48
53	A tunable amphiphilic Enteromorpha-modified graphene aerogel for oil/water separation. Science of the Total Environment, 2021, 763, 142958.	8.0	47
54	A facile approach to ultralight and recyclable 3D self-assembled copolymer/graphene aerogels for efficient oil/water separation. Science of the Total Environment, 2019, 694, 133671.	8.0	46

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55	Insights into the phosphate adsorption behavior onto 3D self-assembled cellulose/graphene hybrid nanomaterials embedded with bimetallic hydroxides. Science of the Total Environment, 2019, 653, 897-907.	8.0	46
56	Column adsorption of perchlorate by amine-crosslinked biopolymer based resin and its biological, chemical regeneration properties. Carbohydrate Polymers, 2015, 115, 432-438.	10.2	45
57	A wheat straw cellulose-based hydrogel for Cu (II) removal and preparation copper nanocomposite for reductive degradation of chloramphenicol. Carbohydrate Polymers, 2018, 190, 12-22.	10.2	45
58	Highly selective and efficient removal of fluoride from aqueous solution by Zr La dual-metal hydroxide anchored bio-sorbents. Journal of Cleaner Production, 2018, 199, 36-46.	9.3	45
59	Boosting fenton-like reaction by reconstructed single Fe atom catalyst for oxidizing organics: Synergistic effect of conjugated Ï€-Ï€ sp2 structured carbon and isolated Fe-N4 sites. Chemical Engineering Journal, 2022, 446, 137120.	12.7	45
60	Study of microbial perchlorate reduction: Considering of multiple pH, electron acceptors and donors. Journal of Hazardous Materials, 2015, 285, 228-235.	12.4	44
61	Adsorption of phosphate by the cellulose-based biomaterial and its sustained release of laden phosphate in aqueous solution and soil. International Journal of Biological Macromolecules, 2018, 109, 524-534.	7.5	44
62	Thiomolybdate [Mo₃S₁₃]^{2â€“} Nanoclusters Anchored on Reduced Graphene Oxide-Carbon Nanotube Aerogels for Efficient Electrocatalytic Hydrogen Evolution. ACS Sustainable Chemistry and Engineering, 2017, 5, 8908-8917.	6.7	42
63	The application of UV/O3 process on ciprofloxacin wastewater containing high salinity: Performance and its degradation mechanism. Chemosphere, 2021, 276, 130220.	8.2	42
64	Effective removal of hexavalent chromium from aqueous solution by ZnCl2 modified biochar: Effects and response sequence of the functional groups. Journal of Molecular Liquids, 2021, 334, 116149.	4.9	41
65	Ibuprofen degradation using a Co-doped carbon matrix derived from peat as a peroxymonosulphate activator. Environmental Research, 2021, 193, 110564.	7.5	39
66	Fabrication of graphitic carbon nitride functionalized Pâ€“CoFe2O4 for the removal of tetracycline under visible light: Optimization, degradation pathways and mechanism evaluation. Chemosphere, 2021, 274, 129783.	8.2	38
67	Alleviating membrane fouling of modified polysulfone membrane via coagulation pretreatment/ultrafiltration hybrid process. Chemosphere, 2019, 235, 58-69.	8.2	37
68	Synthesis of polyaluminium chloride/papermaking sludge-based organic polymer composites for removal of disperse yellow and reactive blue by flocculation. Chemosphere, 2019, 231, 337-348.	8.2	35
69	Synthesis, characterization and flocculation performance of a novel sodium alginate-based flocculant. Carbohydrate Polymers, 2020, 248, 116790.	10.2	35
70	Perchlorate uptake by wheat straw based adsorbent from aqueous solution and its subsequent biological regeneration. Chemical Engineering Journal, 2012, 211-212, 37-45.	12.7	34
71	Enhanced fluoride uptake by bimetallic hydroxides anchored in cotton cellulose/graphene oxide composites. Journal of Hazardous Materials, 2019, 376, 91-101.	12.4	33
72	Peroxymonosulfate activation on a chainmail catalyst via an electron shuttle mechanism for efficient organic pollutant removal. Applied Catalysis B: Environmental, 2022, 316, 121695.	20.2	33

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73	Uptake of perchlorate from aqueous solutions by amine-crosslinked cotton stalk. Carbohydrate Polymers, 2013, 98, 132-138.	10.2	32
74	Degradation of organic pollutants by ultraviolet/ozone in high salinity condition: Non-radical pathway dominated by singlet oxygen. Chemosphere, 2021, 268, 128796.	8.2	32
75	Performance of novel biopolymer-based activated carbon and resin on phosphate elimination from stream. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 476, 68-75.	4.7	31
76	Effective adsorption/desorption of perchlorate from water using corn stalk based modified magnetic biopolymer ion exchange resin. Microporous and Mesoporous Materials, 2017, 252, 59-68.	4.4	31
77	Multiple bimetallic (Al-La or Fe-La) hydroxides embedded in cellulose/graphene hybrids for uptake of fluoride with phosphate surroundings. Journal of Hazardous Materials, 2019, 379, 120634.	12.4	31
78	Insights into selective adsorption mechanism of copper and zinc ions onto biogas residue-based adsorbent: Theoretical calculation and electronegativity difference. Science of the Total Environment, 2022, 805, 150413.	8.0	30
79	Effect of modifying agents on the preparation and properties of the new adsorbents from wheat straw. Bioresource Technology, 2010, 101, 1477-1481.	9.6	29
80	Characteristics of Amine Surfactant Modified Peanut Shell and Its Sorption Property for Cr(VI). Chinese Journal of Chemical Engineering, 2013, 21, 1260-1268.	3.5	28
81	Preparation and characteristics of anion exchanger from corn stalks. Desalination, 2011, 274, 113-119.	8.2	26
82	Highly efficient removal of phosphate from aqueous media by pomegranate peel co-doping with ferric chloride and lanthanum hydroxide nanoparticles. Journal of Cleaner Production, 2021, 292, 125311.	9.3	25
83	One-step synthesis of easily-recoverable carboxylated biogas residues for efficient removal of heavy metal ions from synthetic wastewater. Journal of Cleaner Production, 2019, 240, 118264.	9.3	24
84	Mechanism of sonication time on structure and adsorption properties of 3D peanut shell/graphene oxide aerogel. Science of the Total Environment, 2020, 739, 139983.	8.0	24
85	Treatment of dissolved perchlorate by adsorptionâ€“microbial reduction. Chemical Engineering Journal, 2015, 279, 522-529.	12.7	23
86	Physicochemical characteristics of epichlorohydrin, pyridine and trimethylamine functionalized cotton stalk and its adsorption/desorption properties for perchlorate. Journal of Colloid and Interface Science, 2015, 440, 219-228.	9.4	23
87	Application for oxytetracycline wastewater pretreatment by Fenton iron mud based cathodic-anodic-electrolysis ceramic granular fillers. Chemosphere, 2017, 182, 483-490.	8.2	23
88	Adsorptive removal of phosphate by the bimetallic hydroxide nanocomposites embedded in pomegranate peel. Journal of Environmental Sciences, 2020, 91, 189-198.	6.1	23
89	Integration of adsorption and direct bio-reduction of perchlorate on surface of cotton stalk based resin. Journal of Colloid and Interface Science, 2015, 459, 127-135.	9.4	22
90	The rapid adsorption-microbial reduction of perchlorate from aqueous solution by novel amine-crosslinked magnetic biopolymer resin. Bioresource Technology, 2017, 240, 68-76.	9.6	22

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91	Amine-crosslinked Shaddock Peel embedded with hydrous zirconium oxide nano-particles for selective phosphate removal in competitive condition. Journal of the Taiwan Institute of Chemical Engineers, 2017, 80, 650-662.	5.3	22
92	Novel cationic polyamidine: Synthesis, characterization, and sludge dewatering performance. Journal of Environmental Sciences, 2017, 51, 305-314.	6.1	22
93	Study on the treatment of soybean protein wastewater by a pilot-scale IC-A/O coupling reactor. Chemical Engineering Journal, 2018, 343, 189-197.	12.7	22
94	Magnetic field-enhanced radical intensity for accelerating norfloxacin degradation under FeCu/rGO photo-Fenton catalysis. Chemical Engineering Journal, 2021, 420, 127634.	12.7	22
95	Biosorption and Bioreduction of Perchlorate Using the Nano-Fe₃O₄-Laden Quaternary-Ammonium Chinese Reed: Considering the Coexisting Nitrate and Nano-Fe₃O₄. ACS Sustainable Chemistry and Engineering, 2017, 5, 2471-2482.	6.7	20
96	Enhanced photodegradation of sulfadimidine via PAA/g-C3N4-Fe0 polymeric catalysts under visible light. Chemical Engineering Journal, 2021, 413, 127456.	12.7	20
97	Three-dimensional reduced graphene oxide/carbon nanotube nanocomposites anchoring of amorphous and crystalline molybdenum sulfide: Physicochemical characteristics and electrocatalytic hydrogen evolution performances. Electrochimica Acta, 2018, 273, 402-411.	5.2	19
98	A 3D MIL-101@rGO composite as catalyst for efficient conversion of straw cellulose into valuable organic acid. Chinese Chemical Letters, 2022, 33, 2573-2578.	9.0	19
99	rGO/CNTs Supported Pyrolysis Derivatives of [Mo₃S₁₃]^{2â€“} Clusters as Promising Electrocatalysts for Enhancing Hydrogen Evolution Performances. ACS Sustainable Chemistry and Engineering, 2018, 6, 6920-6931.	6.7	17
100	Structure-activity relationships of the papermill sludge-based flocculants in different dye wastewater treatment. Journal of Cleaner Production, 2020, 266, 121944.	9.3	17
101	Flocculation behaviors of a novel papermaking sludge-based flocculant in practical printing and dyeing wastewater treatment. Frontiers of Environmental Science and Engineering, 2021, 15, 1.	6.0	17
102	Adsorption of phosphate on surface of magnetic reed: characteristics, kinetic, isotherm, desorption, competitive and mechanistic studies. RSC Advances, 2016, 6, 5089-5099.	3.6	15
103	Enhanced removal of phosphate using pomegranate peel-modified nickelâ€‘lanthanum hydroxide. Science of the Total Environment, 2022, 809, 151181.	8.0	15
104	Removal of fluoride by carbohydrate-based material embedded with hydrous zirconium oxide nanoparticles. Environmental Science and Pollution Research, 2018, 25, 27982-27991.	5.3	14
105	Development of combined coagulation-hydrolysis acidification-dynamic membrane bioreactor system for treatment of oilfield polymer-flooding wastewater. Frontiers of Environmental Science and Engineering, 2019, 13, 1.	6.0	13
106	Preparation of Cu2O-Fe3O4@carbon nanocomposites derived from natural polymer hydrogel template for organic pollutants degradation. Journal of the Taiwan Institute of Chemical Engineers, 2019, 102, 456-464.	5.3	12
107	Single and Binary Competitive Adsorption of Cobalt and Nickel onto Novel Magnetic Composites Derived from Green Macroalgae. Environmental Engineering Science, 2020, 37, 188-200.	1.6	12
108	Bio-reduction of free and laden perchlorate by the pure and mixed perchlorate reducing bacteria: Considering the pH and coexisting nitrate. Chemosphere, 2018, 205, 475-483.	8.2	11

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109	Application of sectionalized single-step reaction approach (SSRA) and distributed activation energy model (DAEM) on the pyrolysis kinetics model of upstream oily sludge: Construction procedure and data reproducibility comparison. Science of the Total Environment, 2021, 774, 145751.	8.0	11
110	A new UV source activates ozone for water treatment: Wavelength-dependent ultraviolet light-emitting diode (UV-LED). Separation and Purification Technology, 2022, 280, 119934.	7.9	11
111	Bio-regeneration of spent Fe 3 O 4 laden quaternary-ammonium shaddock peel after perchlorate capture: Considering the oxygen, coexisting anions, bio-fouling and indirect bio-regeneration. Chemical Engineering Journal, 2017, 316, 204-213.	12.7	10
112	Application and mechanism of polysaccharide extracted from Enteromorpha to remove nano-ZnO and humic acid in coagulation process. Frontiers of Environmental Science and Engineering, 2018, 12, 1.	6.0	9
113	Effects of charge density and molecular weight of papermaking sludge-based flocculant on its decolorization efficiencies. Science of the Total Environment, 2020, 723, 138136.	8.0	8
114	Effect of washing conditions on adsorptive properties of mesoporous silica carbon composites by in-situ carbothermal treatment. Science of the Total Environment, 2020, 716, 136770.	8.0	8
115	Uptake of phosphate and Cr(VI) by amine-functionalized Chinese reed: Considering the computations and characteristics analysis. Journal of the Taiwan Institute of Chemical Engineers, 2017, 72, 85-94.	5.3	7
116	Integration of coagulation and adsorption for removal of N-nitrosodimethylamine (NDMA) precursors from biologically treated municipal wastewater. Environmental Science and Pollution Research, 2017, 24, 12426-12436.	5.3	7
117	Capture of perchlorate by a surface-modified bio-sorbent and its bio-regeneration properties: Adsorption, computations and biofouling. Chemosphere, 2017, 185, 152-161.	8.2	7
118	Adsorption studies of the removal of anions from aqueous solutions onto an adsorbent prepared from wheat straw. Science China Chemistry, 2010, 53, 1414-1419.	8.2	6
119	Cellulose based multifunctional hybrid material for sequestering phosphate in stratified water purification columns. Cellulose, 2018, 25, 5877-5892.	4.9	4
120	Preferential capture of phosphate by an Enteromorpha proliferaâ€“based biopolymer encapsulating hydrous zirconium oxide nanoparticles. Environmental Science and Pollution Research, 2021, 28, 34584-34597.	5.3	1