Zuo-Yi Xiao

List of Publications by Year in descending order

87 papers	3,260 citations	147726 31 h-index	168321 53 g-index
87 all docs	87 docs citations	87 times ranked	3202 citing authors

#	Article	IF	Citations
1	Flexible core-shell/bead-like alginate@PEI with exceptional adsorption capacity, recycling performance toward batch and column sorption of Cr(VI). Chemical Engineering Journal, 2017, 313, 475-486.	6.6	279
2	Dye adsorption of mesoporous activated carbons produced from NaOH-pretreated rice husks. Bioresource Technology, 2013, 136, 437-443.	4.8	191
3	Efficient removal of Pb(II), Cr(VI) and organic dyes by polydopamine modified chitosan aerogels. Carbohydrate Polymers, 2018, 202, 306-314.	5.1	185
4	Interior multi-cavity/surface engineering of alginate hydrogels with polyethylenimine for highly efficient chromium removal in batch and continuous aqueous systems. Journal of Materials Chemistry A, 2017, 5, 17073-17087.	5.2	149
5	Construction of strawberry-like Ni₃S₂@Co₉S₈ heteronanoparticle-embedded biomass-derived 3D N-doped hierarchical porous carbon for ultrahigh energy density supercapacitors. Journal of Materials Chemistry A, 2019, 7, 17345-17356.	5.2	96
6	Polyethylenimine-functionalized cellulose aerogel beads for efficient dynamic removal of chromium(<scp>vi</scp>) from aqueous solution. RSC Advances, 2017, 7, 54039-54052.	1.7	91
7	Synergistic preparation of modified alginate aerogel with melamine/chitosan for efficiently selective adsorption of lead ions. Carbohydrate Polymers, 2021, 256, 117564.	5.1	86
8	Inherent N-Doped Honeycomb-like Carbon/Fe₃O₄ Composites with Versatility for Efficient Microwave Absorption and Wastewater Treatment. ACS Sustainable Chemistry and Engineering, 2019, 7, 9237-9248.	3.2	79
9	Efficiently selective adsorption of Pb(II) with functionalized alginate-based adsorbent in batch/column systems: Mechanism and application simulation. Journal of Cleaner Production, 2020, 250, 119585.	4.6	78
10	Rational Design of Superior Microwave Shielding Composites Employing Synergy of Encapsulating Character of Alginate Hydrogels and Task-Specific Components (Ni NPs,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 377 Td (Fe₃	3.2	76
11	Solvothermal synthesis of three-dimensional, Fe₂O₃NPs-embedded CNT/N-doped graphene composites with excellent microwave absorption performance. RSC Advances, 2017, 7, 45156-45169.	1.7	70
12	Function integrated chitosan-based beads with throughout sorption sites and inherent diffusion network for efficient phosphate removal. Carbohydrate Polymers, 2020, 230, 115639.	5.1	65
13	Seaweed-derived multifunctional nitrogen/cobalt-codoped carbonaceous beads for relatively high-efficient peroxymonosulfate activation for organic pollutants degradation. Chemical Engineering Journal, 2018, 353, 746-759.	6.6	60
14	Upon designing carboxyl methylcellulose and chitosan-derived nanostructured sorbents for efficient removal of Cd(II) and Cr(VI) from water. International Journal of Biological Macromolecules, 2020, 143, 640-650.	3.6	56
15	High-efficacy adsorption of Cr(VI) and anionic dyes onto Î²-cyclodextrin/chitosan/hexamethylenetetramine aerogel beads with task-specific, integrated components. International Journal of Biological Macromolecules, 2019, 128, 268-278.	3.6	55
16	Alginate modified graphitic carbon nitride composite hydrogels for efficient removal of Pb(II), Ni(II) and Cu(II) from water. International Journal of Biological Macromolecules, 2020, 148, 1298-1306.	3.6	53
17	Significant promotion of porous architecture and magnetic Fe₃O₄ NPs inside honeycomb-like carbonaceous composites for enhanced microwave absorption. RSC Advances, 2018, 8, 19011-19023.	1.7	52
18	One-step fabrication of highly stable, superhydrophobic composites from controllable and low-cost PMHS/TEOS sols for efficient oil cleanup. Journal of Colloid and Interface Science, 2015, 446, 155-162.	5.0	49

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19	Ultrahigh selective and efficient removal of anionic dyes by recyclable polyethylenimine-modified cellulose aerogels in batch and fixed-bed systems. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 150-160.	2.3	49
20	Versatile bimetal sulfides nanoparticles-embedded N-doped hierarchical carbonaceous aerogels (N-NixSy/CoxSy@C) for excellent supercapacitors and microwave absorption. Carbon, 2021, 179, 111-124.	5.4	47
21	Alginate and polyethyleneimine dually mediated synthesis of nanosilver-containing composites for efficient p-nitrophenol reduction. Carbohydrate Polymers, 2018, 181, 744-751.	5.1	43
22	A versatile N-doped honeycomb-like carbonaceous aerogels loaded with bimetallic sulfide and oxide for superior electromagnetic wave absorption and supercapacitor applications. Carbon, 2021, 181, 335-347.	5.4	43
23	Controllable N-Doped Carbonaceous Composites with Highly Dispersed Ni Nanoparticles for Excellent Microwave Absorption. ACS Applied Nano Materials, 2018, 1, 5895-5906.	2.4	42
24	Preparation of PEI/CS aerogel beads with a high density of reactive sites for efficient Cr(<scp>vi</scp>) sorption: batch and column studies. RSC Advances, 2017, 7, 40227-40236.	1.7	40
25	Constructing Stacked Structure of S-Doped Carbon Layer-Encapsulated MoO₂ NPs with Dominated Dielectric Loss for Microwave Absorption. ACS Sustainable Chemistry and Engineering, 2019, 7, 19546-19555.	3.2	40
26	Monolithic magnetic carbonaceous beads for efficient Cr(<scp>vi</scp>) removal from water. New Journal of Chemistry, 2016, 40, 1195-1204.	1.4	36
27	Synthesis of nickel sulfide-supported on porous carbon from a natural seaweed-derived polysaccharide for high-performance supercapacitors. Journal of Alloys and Compounds, 2021, 853, 157123.	2.8	36
28	A high-temperature phosphorization for synthesis of core-shell Ni-NixPy@C nanocomposite-immobilized sponge-like P-doped porous carbon with excellent supercapacitance performance. Electrochimica Acta, 2019, 309, 197-208.	2.6	35
29	Magnetic aminated lignin/CeO2/Fe3O4 composites with tailored interfacial chemistry and affinity for selective phosphate removal. Science of the Total Environment, 2021, 796, 148984.	3.9	35
30	Carboxymethyl cellulose-based cryogels for efficient heavy metal capture: Aluminum-mediated assembly process and sorption mechanism. International Journal of Biological Macromolecules, 2020, 164, 3275-3286.	3.6	34
31	Designing ordered composites with confined Coâ€“N/C layers for efficient pollutant degradation: Structure-dependent performance and PMS activation mechanism. Microporous and Mesoporous Materials, 2020, 293, 109810.	2.2	32
32	Biochar/Mg-Al spinel carboxymethyl cellulose-La hydrogels with cationic polymeric layers for selective phosphate capture. Journal of Colloid and Interface Science, 2022, 606, 736-747.	5.0	32
33	Dopamine-derived cavities/Fe₃O₄ nanoparticles-encapsulated carbonaceous composites with self-generated three-dimensional network structure as an excellent microwave absorber. RSC Advances, 2019, 9, 766-780.	1.7	31
34	Versatile core/shell-like alginate@polyethylenimine composites for efficient removal of multiple heavy metal ions (Pb2+, Cu2+, CrO42-): Batch and fixed-bed studies. Materials Research Bulletin, 2019, 118, 110526.	2.7	31
35	Modifying alginate beads using polycarboxyl component for enhanced metal ions removal. International Journal of Biological Macromolecules, 2020, 158, 493-501.	3.6	31
36	Network interior and surface engineering of alginate-based beads using sorption affinity component for enhanced phosphate capture. International Journal of Biological Macromolecules, 2020, 162, 301-309.	3.6	31

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37	In situ preparation of uniform Ag NPs onto multifunctional Fe₃O₄@SN/HPW@CG towards efficient reduction of 4-nitrophenol. New Journal of Chemistry, 2014, 38, 3999-4006.	1.4	30
38	High-performance electromagnetic wave absorbing composites prepared by one-step transformation of Fe³⁺mediated egg-box structure of seaweed. RSC Advances, 2016, 6, 98128-98140.	1.7	30
39	Porous NiCoP@Pâ€“C hybrid as efficient positive electrodes for high-performance supercapacitors. Journal of Alloys and Compounds, 2020, 835, 155157.	2.8	30
40	Recyclable CMC/PVA/MIL-101 aerogels with tailored network and affinity sites for efficient heavy metal ions capture. Chemical Engineering Journal, 2022, 447, 137483.	6.6	30
41	Sodium alginate-based magnetic carbonaceous biosorbents for highly efficient Cr(<scp>vi</scp>) removal from water. RSC Advances, 2015, 5, 77932-77941.	1.7	29
42	Efficient batch and column removal of Cr(<scp>vi</scp>) by carbon beads with developed nano-network. RSC Advances, 2016, 6, 104897-104910.	1.7	29
43	Oneâ€Pot Synthesis of CuS Nanoflowerâ€Decorated Active Carbon Layer for Highâ€Performance Asymmetric Supercapacitors. ChemNanoMat, 2018, 4, 964-971.	1.5	29
44	Circular utilization of Co(II) adsorbed composites for efficient organic pollutants degradation by transforming into Co/N-doped carbonaceous catalyst. Journal of Cleaner Production, 2019, 236, 117630.	4.6	28
45	Highly recyclable Ag NPs/alginate composite beads prepared via one-pot encapsulation method for efficient continuous reduction of p-nitrophenol. New Journal of Chemistry, 2017, 41, 13327-13335.	1.4	27
46	Performance enhanced electromagnetic wave absorber from controllable modification of natural plant fiber. RSC Advances, 2019, 9, 16690-16700.	1.7	26
47	Preparation of superhydrophobic materials for oil/water separation and oil absorption using PMHSâ€“TEOS-derived xerogel and polystyrene. Journal of Sol-Gel Science and Technology, 2014, 72, 385-393.	1.1	23
48	Monolithic Cu/C hybrid beads with well-developed porosity for the reduction of 4-nitrophenol to 4-aminophenol. New Journal of Chemistry, 2017, 41, 13230-13234.	1.4	23
49	Facile solvothermal synthesis of novel hetero-structured CoNiâ€“CuO composites with excellent microwave absorption performance. RSC Advances, 2017, 7, 43689-43699.	1.7	22
50	One-step preparation of Fe O /N-GN/CNTs heterojunctions as a peroxymonosulfate activator for relatively highly-efficient methylene blue degradation. Chinese Journal of Catalysis, 2018, 39, 1842-1853.	6.9	22
51	Facile transformation of carboxymethyl cellulose beads into hollow composites for dye adsorption. International Journal of Biological Macromolecules, 2021, 190, 919-926.	3.6	22
52	Bi-layered hollow amphoteric composites: Rational construction and ultra-efficient sorption performance for anionic Cr(VI) and cationic Cu(II) ions. Journal of Colloid and Interface Science, 2022, 607, 556-567.	5.0	22
53	Hydrophilic, hollow Fe₃O₄@PDA spheres with a storage cavity for efficient removal of polycyclic structured tetracycline. New Journal of Chemistry, 2017, 41, 1235-1244.	1.4	21
54	Multifunctional hollow polydopamine-based composites (Fe₃O₄/PDA@Ag) for efficient degradation of organic dyes. RSC Advances, 2016, 6, 47761-47770.	1.7	20

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55	Alginate-Derived Porous Carbon Obtained by Nano-ZnO Hard Template-Induced ZnCl₂-Activation Method for Enhanced Electrochemical Performance. Journal of the Electrochemical Society, 2020, 167, 040505.	1.3	20
56	Fabrication of highly-stable Ag/CA@GTA hydrogel beads and their catalytic application. RSC Advances, 2014, 4, 60460-60466.	1.7	19
57	Defect-rich N-doped porous carbon derived from alginate by HNO3 etching combined with a hard template method for high-performance supercapacitors. Materials Chemistry and Physics, 2021, 260, 124121.	2.0	18
58	Construction of nickel ferrite nanoparticle-loaded on carboxymethyl cellulose-derived porous carbon for efficient pseudocapacitive energy storage. Journal of Colloid and Interface Science, 2022, 622, 327-335.	5.0	16
59	Facile fabrication of CuxSy/Carbon composites using lignosulfonate for efficient palladium recovery under strong acidic conditions. Journal of Hazardous Materials, 2020, 391, 122253.	6.5	15
60	Enhanced metalâ€“support interactions between Pd NPs and ZrSBA-15 for efficient aerobic benzyl alcohol oxidation. RSC Advances, 2016, 6, 70424-70432.	1.7	14
61	Hydrogels with diffusion-facilitated porous network for improved adsorption performance. Korean Journal of Chemical Engineering, 2018, 35, 2384-2393.	1.2	14
62	Combining mussel and seaweed hydrogel-inspired strategies to design novel ion-imprinted sorbents for ultra-efficient lead removal from water. New Journal of Chemistry, 2019, 43, 5495-5502.	1.4	14
63	Interior engineering of seaweed-derived N-doped versatile carbonaceous beads with Co_xO_y for universal organic pollutant degradation. RSC Advances, 2019, 9, 5009-5024.	1.7	14
64	Construction of Snâ€“Mo bimetallic oxide nanoparticle-encapsulated P-doped 3D hierarchical porous carbon through an in-situ reduction and competitive cross-linking strategy for efficient pseudocapacitive energy storage. Electrochimica Acta, 2020, 343, 136106.	2.6	14
65	PMHS-reduced fabrication of hollow Agâ€“SiO2 composite spheres with developed porosity. Journal of Sol-Gel Science and Technology, 2015, 75, 82-89.	1.1	13
66	Promotional effect of embedded Ni NPs in alginate-based carbon toward Pd NPs efficiency for high-concentration p-nitrophenol reduction. International Journal of Biological Macromolecules, 2021, 173, 160-167.	3.6	13
67	B,N-Codoped Porous C with Controllable N Species as an Electrode Material for Supercapacitors. Inorganic Chemistry, 2021, 60, 13252-13261.	1.9	13
68	Site-imprinted hollow composites with integrated functions for ultra-efficient capture of hexavalent chromium from water. Separation and Purification Technology, 2022, 284, 120240.	3.9	13
69	Template-assisted synthesis of porous carbon derived from biomass for enhanced supercapacitor performance. Diamond and Related Materials, 2022, 128, 109219.	1.8	13
70	Magnetic and Stable H₃PW₁₂O₄₀â€Based Core@shell Nanomaterial towards the Esterification of Oleic Acid with Methanol. European Journal of Inorganic Chemistry, 2013, 2013, 5428-5435.	1.0	12
71	High-performance asymmetric supercapacitor based on Ni3S2 nanoparticles immobilized on carbon nanosheets from sodium alginate. Journal of Alloys and Compounds, 2021, 885, 161194.	2.8	12
72	Oxygen-containing/amino groups bifunctionalized SBA-15 toward efficient removal of methylene blue: kinetics, isotherm and mechanism analysis. Journal of Sol-Gel Science and Technology, 2015, 76, 320-331.	1.1	11

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73	Multistage reclamation of Co2+-containing alginate hydrogels as excellent reduction catalyst and subsequent microwave absorber by facile transformation. International Journal of Biological Macromolecules, 2021, 166, 1513-1525.	3.6	10
74	Sandwich-like N-C/Cu/N-C porous beads derived from alginate with enhanced catalytic activity and excellent recyclability for 4-nitrophenol reduction. Industrial Crops and Products, 2021, 164, 113413.	2.5	10
75	Nickel oxide/sulfide nanoparticle-embedded porous carbon prepared from kelp for excellent asymmetrical supercapacitors and microwave absorbers. Journal of Alloys and Compounds, 2022, 918, 165721.	2.8	10
76	Biomass-based carbon beads with a tailored hierarchical structure and surface chemistry for efficient batch and column uptake of methylene blue. Research on Chemical Intermediates, 2018, 44, 2867-2887.	1.3	9
77	Three-dimensional Coâ€“N/SBA-15/alginate hydrogels with excellent recovery and recyclability for activating peroxymonosulfate to degrade ciprofloxacin. Microporous and Mesoporous Materials, 2021, 323, 111259.	2.2	9
78	Interplay between zirconium addition and morphology/catalytic performance of HPW/PEHA/SBA-15 composites towards selective oxidation of benzyl alcohol. Journal of Porous Materials, 2015, 22, 997-1008.	1.3	8
79	â€œGreenâ€•synthesis of magnetic coreâ€“shell Fe3O4@SNâ€“Ag towards efficient reduction of 4-nitrophenol. Journal of Sol-Gel Science and Technology, 2015, 73, 299-305.	1.1	8
80	Fabrication of polymeric and silica ceramic porous microstructures by perfluoropolyether based soft lithography. Journal of Materials Chemistry C, 2013, 1, 2750.	2.7	7
81	Correlation between pore-expanding and dye adsorption of platelet C/SBA-15 prepared by carbonization and oxidation of P123-TMB/SBA-15 composites. Journal of Sol-Gel Science and Technology, 2014, 70, 451-463.	1.1	7
82	Rationally designed carboxymethylcellulose-based sorbents crosslinked by targeted ions for static and dynamic capture of heavy metals: Easy recovery and affinity mechanism. Journal of Colloid and Interface Science, 2022, 625, 651-663.	5.0	7
83	Multifunctional Fe₃O₄/TiO₂/NH₂â€“UiOâ€“66 with integrated interfacial features for favorable phosphate adsorption. New Journal of Chemistry, 2022, 46, 14091-14102.	1.4	5
84	Recyclable Cu(i)/ZrSBA-15 prepared via a mild vapor-reduction method for efficient thiophene removal from modeled oil. RSC Advances, 2017, 7, 6605-6614.	1.7	4
85	Deposition of N-doped carbon layers inside acidic ZrSBA-15: significant enhancement of catalytic performance of Pd NPs toward benzyl alcohol aerobic oxidation. Journal of Sol-Gel Science and Technology, 2017, 84, 180-191.	1.1	3
86	Synergistic effect of Zr-incorporated framework and subsequent deposition of PEHA towards efficient and reusable HPW/PEHA/ZrSBA-15 composites. Journal of Sol-Gel Science and Technology, 2014, 71, 354-363.	1.1	2
87	PVP-assisted synthesis of raspberry-like composite particles. Journal of Sol-Gel Science and Technology, 2016, 78, 228-238.	1.1	2