

Xing Dai

List of Publications by Year in descending order

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67
papers

4,738
citations

159585

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102487

66
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68
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68
docs citations

68
times ranked

3797
citing authors

#	ARTICLE	IF	CITATIONS
1	Identifying the Recognition Site for Selective Trapping of $^{99}\text{TcO}_4^-$ in a Hydrolytically Stable and Radiation Resistant Cationic Metal-Organic Framework. <i>Journal of the American Chemical Society</i> , 2017, 139, 14873-14876.	13.7	386
2	Overcoming the crystallization and designability issues in the ultrastable zirconium phosphonate framework system. <i>Nature Communications</i> , 2017, 8, 15369.	12.8	366
3	Highly Sensitive and Selective Uranium Detection in Natural Water Systems Using a Luminescent Mesoporous Metal-Organic Framework Equipped with Abundant Lewis Basic Sites: A Combined Batch, X-ray Absorption Spectroscopy, and First Principles Simulation Investigation. <i>Environmental Science & Technology</i> , 2017, 51, 3911-3921.	10.0	331
4	A mesoporous cationic thorium-organic framework that rapidly traps anionic persistent organic pollutants. <i>Nature Communications</i> , 2017, 8, 1354.	12.8	296
5	Degradable Carbon Dots with Broad-Spectrum Antibacterial Activity. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 26936-26946.	8.0	246
6	$^{99}\text{TcO}_4^-$ remediation by a cationic polymeric network. <i>Nature Communications</i> , 2018, 9, 3007.	12.8	234
7	Powerful uranium extraction strategy with combined ligand complexation and photocatalytic reduction by postsynthetically modified photoactive metal-organic frameworks. <i>Applied Catalysis B: Environmental</i> , 2019, 254, 47-54.	20.2	222
8	A nitrogen-rich covalent organic framework for simultaneous dynamic capture of iodine and methyl iodide. <i>CheM</i> , 2021, 7, 699-714.	11.7	197
9	Exceptional Perrhenate/Pertechnetate Uptake and Subsequent Immobilization by a Low-Dimensional Cationic Coordination Polymer: Overcoming the Hofmeister Bias Selectivity. <i>Environmental Science and Technology Letters</i> , 2017, 4, 316-322.	8.7	181
10	Unique Proton Transportation Pathway in a Robust Inorganic Coordination Polymer Leading to Intrinsically High and Sustainable Anhydrous Proton Conductivity. <i>Journal of the American Chemical Society</i> , 2018, 140, 6146-6155.	13.7	181
11	Mechanism unravelling for ultrafast and selective $^{99}\text{TcO}_4^-$ uptake by a radiation-resistant cationic covalent organic framework: a combined radiological experiment and molecular dynamics simulation study. <i>Chemical Science</i> , 2019, 10, 4293-4305.	7.4	181
12	Successful Decontamination of $^{99}\text{TcO}_4^-$ in Groundwater at Legacy Nuclear Sites by a Cationic Metal-Organic Framework with Hydrophobic Pockets. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 4968-4972.	13.8	177
13	$^{99}\text{TcO}_4^-$ removal from legacy defense nuclear waste by an alkaline-stable 2D cationic metal organic framework. <i>Nature Communications</i> , 2020, 11, 5571.	12.8	124
14	Distinctive Two-Step Intercalation of Sr^{2+} into a Coordination Polymer with Record High ^{90}Sr Uptake Capabilities. <i>CheM</i> , 2019, 5, 977-994.	11.7	119
15	A 3,2-Hydroxypyridinone-based Decorporation Agent that Removes Uranium from Bones In Vivo. <i>Nature Communications</i> , 2019, 10, 2570.	12.8	107
16	Task-Specific Tailored Cationic Polymeric Network with High Base-Resistance for Unprecedented $^{99}\text{TcO}_4^-$ Cleanup from Alkaline Nuclear Waste. <i>ACS Central Science</i> , 2021, 7, 1441-1450.	11.3	101
17	Ratiometric Monitoring of Thorium Contamination in Natural Water Using a Dual-Emission Luminescent Europium Organic Framework. <i>Environmental Science & Technology</i> , 2019, 53, 332-341.	10.0	90
18	Electron Beam Irradiation as a General Approach for the Rapid Synthesis of Covalent Organic Frameworks under Ambient Conditions. <i>Journal of the American Chemical Society</i> , 2020, 142, 9169-9174.	13.7	90

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19	Palladium concave nanocrystals with high-index facets accelerate ascorbate oxidation in cancer treatment. <i>Nature Communications</i> , 2018, 9, 4861.	12.8	84
20	Hydroxyl-Group-Dominated Graphite Dots Reshape Laser Desorption/Ionization Mass Spectrometry for Small Biomolecular Analysis and Imaging. <i>ACS Nano</i> , 2017, 11, 9500-9513.	14.6	79
21	Emergence of a Radical-Stabilizing Metal-Organic Framework as a Radio-photoluminescence Dosimeter. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 15209-15214.	13.8	56
22	Highly Sensitive Detection of UV Radiation Using a Uranium Coordination Polymer. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 4844-4850.	8.0	52
23	Self-Assembled Core-Satellite Gold Nanoparticle Networks for Ultrasensitive Detection of Chiral Molecules by Recognition Tunneling Current. <i>ACS Nano</i> , 2016, 10, 5096-5103.	14.6	47
24	A Porous Aromatic Framework Functionalized with Luminescent Iridium(III) Organometallic Complexes for Turn-On Sensing of $^{99}\text{TcO}_4^-$. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 15288-15297.	8.0	46
25	Functionalized polyarylether-based COFs for rapid and selective extraction of uranium from aqueous solution. <i>Chemical Engineering Journal</i> , 2022, 434, 134623.	12.7	46
26	Stimulating antibacterial activities of graphitic carbon nitride nanosheets with plasma treatment. <i>Nanoscale</i> , 2019, 11, 18416-18425.	5.6	41
27	U@C_{28} : the electronic structure induced by the 32-electron principle. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23308-23311.	2.8	40
28	Successful Decontamination of $^{99}\text{TcO}_4^-$ in Groundwater at Legacy Nuclear Sites by a Cationic Metal-Organic Framework with Hydrophobic Pockets. <i>Angewandte Chemie</i> , 2019, 131, 5022-5026.	2.0	37
29	Phase transition triggered aggregation-induced emission in a photoluminescent uranyl-organic framework. <i>Chemical Communications</i> , 2018, 54, 627-630.	4.1	35
30	Facile and Efficient Decontamination of Thorium from Rare Earths Based on Selective Selenite Crystallization. <i>Inorganic Chemistry</i> , 2018, 57, 1880-1887.	4.0	32
31	Defect Induced Electronic Structure of Uranofullerene. <i>Scientific Reports</i> , 2013, 3, 1341.	3.3	30
32	Deuterated Covalent Organic Frameworks with Significantly Enhanced Luminescence. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21250-21255.	13.8	30
33	Structural and electronic properties of uranium-encapsulated Au_{14} cage. <i>Scientific Reports</i> , 2015, 4, 5862.	3.3	29
34	$\text{C}^{\text{O}}\text{K}^{\text{+}}$ ($\text{Na}^{\text{+}}$) groups in non-doped carbon as active sites for the oxygen reduction reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8955-8961.	10.3	28
35	<i>In Vivo</i> Uranium Decorporation by a Tailor-Made Hexadentate Ligand. <i>Journal of the American Chemical Society</i> , 2022, 144, 11054-11058.	13.7	28
36	Thickness dependent semiconductor-to-metal transition of two-dimensional polyaniline with unique work functions. <i>Nanoscale</i> , 2017, 9, 12025-12031.	5.6	24

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37	Effect of ligands on the characteristics of (CdSe) ₁₃ quantum dots. RSC Advances, 2014, 4, 27146-27151.	3.6	23
38	A strong charge-transfer effect in surface-enhanced Raman scattering induced by valence electrons of actinide elements. RSC Advances, 2015, 5, 32198-32204.	3.6	23
39	The ground state and electronic structure of Gd@C82: A systematic theoretical investigation of first principle density functionals. Journal of Chemical Physics, 2014, 141, 244306.	3.0	22
40	Unveiling the Uncommon Fluorescent Recognition Mechanism towards Peractinide Using a Cationic Metal-Organic Framework Bearing Heterocyclic AIE Molecules. Chemistry - A European Journal, 2021, 27, 5632-5637.	3.3	19
41	Electronic delocalization in small water rings. Physical Chemistry Chemical Physics, 2015, 17, 2987-2990.	2.8	18
42	Efficient Xe/Kr Separation Based on a Lanthanide-Organic Framework with One-Dimensional Local Positively Charged Rhomboid Channels. ACS Applied Materials & Interfaces, 2022, 14, 22233-22241.	8.0	18
43	Defect-induced strong localization of uranium dicarbide on the graphene surface. Physical Chemistry Chemical Physics, 2014, 16, 22784-22790.	2.8	16
44	Efficient Sr-90 removal from highly alkaline solution by an ultrastable crystalline zirconium phosphonate. Chemical Communications, 2021, 57, 8452-8455.	4.1	15
45	Strong Adsorption Between Uranium Dicarbide and Graphene Surface Induced by f Electrons. Journal of Physical Chemistry C, 2013, 117, 26849-26857.	3.1	14
46	Emergence of a Radical-Stabilizing Metal-Organic Framework as a Radio-photoluminescence Dosimeter. Angewandte Chemie, 2020, 132, 15321-15326.	2.0	14
47	Energetics and Electronic Properties of a Neutral Diuranium Molecule Encapsulated in C90 Fullerene. Procedia Chemistry, 2012, 7, 528-533.	0.7	13
48	Inorganic X-ray Scintillators Based on a Previously Unnoticed but Intrinsically Advantageous Metal Center. Inorganic Chemistry, 2019, 58, 2807-2812.	4.0	13
49	Stable electronic structures of a defective uranofullerene. Carbon, 2014, 78, 19-25.	10.3	11
50	Depolymerization of Free-Radical Polymers with Spin Migrations. ChemPhysChem, 2015, 16, 3308-3312.	2.1	11
51	Ab-Initio Study of the Electronic and Magnetic Properties of Boron- and Nitrogen-Doped Penta-Graphene. Nanomaterials, 2020, 10, 816.	4.1	11
52	Stabilization of Open-Shell Single Bonds within Endohedral Metallofullerene. Inorganic Chemistry, 2020, 59, 3606-3618.	4.0	11
53	De Novo Design of an Endohedral Heteronuclear Dimetallofullerene (Uf;Gd)@C ₆₀ with Exceptional Structural and Electronic Properties. ChemPhysChem, 2014, 15, 3871-3876.	2.1	10
54	Carbon nanotubes adsorb U atoms differently in their inner and outer surfaces. RSC Advances, 2014, 4, 30074.	3.6	10

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55	Turn-up Luminescent Sensing of Ultraviolet Radiation by Lanthanide Metal-Organic Frameworks. <i>Inorganic Chemistry</i> , 2022, 61, 4561-4565.	4.0	10
56	Slippage in stacking of graphene nanofragments induced by spin polarization. <i>Scientific Reports</i> , 2015, 5, 10985.	3.3	9
57	Chromate separation by selective crystallization. <i>Chinese Chemical Letters</i> , 2020, 31, 1974-1977.	9.0	9
58	An Ultrastable Heterobimetallic Uranium(IV)/Vanadium(III) Solid Compound Protected by a Redox-Active Phosphite Ligand: Crystal Structure, Oxidative Dissolution, and First-Principles Simulation. <i>Inorganic Chemistry</i> , 2018, 57, 903-907.	4.0	8
59	Th(H ₂ O)(VO ₃) ₂ [VIIO.6V1.76O7(OH)]: A Mixed-Valent Iodine Compound Containing Periodate Stabilized by Crystallographically Compatible Lattice Sites. <i>Inorganic Chemistry</i> , 2016, 55, 12101-12104.	4.0	7
60	Charging-induced asymmetric spin distribution in an asymmetric (9,0) carbon nanotube. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28860-28865.	2.8	6
61	Correlation between electron delocalization and structural planarization in small water rings. <i>International Journal of Quantum Chemistry</i> , 2015, 115, 817-819.	2.0	5
62	Basis set effect on defect induced spin polarization of a carbon nanotube in density functional theory calculations. <i>Chemical Physics Letters</i> , 2013, 585, 107-111.	2.6	4
63	Electronic structural properties of BiOF crystal and its oxygen vacancy from first-principles calculations. <i>Russian Journal of Physical Chemistry A</i> , 2017, 91, 2425-2430.	0.6	3
64	The effects of fluorination and hydrogenation on the physical properties of two-dimensional (111)-oriented cubic boron nitride nanosheets. <i>Thin Solid Films</i> , 2021, 718, 138484.	1.8	2
65	The self-consistent charge density functional tight-binding theory study of carbon adatoms using tuned Hubbard U parameters. <i>International Journal of Quantum Chemistry</i> , 2017, 117, e25320.	2.0	1
66	Environmental-Confinement-Induced Stability Enhancement of Chiral Molecules. <i>ChemPhysChem</i> , 2014, 15, 2672-2675.	2.1	0
67	Deuterated Covalent Organic Frameworks with Significantly Enhanced Luminescence. <i>Angewandte Chemie</i> , 2021, 133, 21420-21425.	2.0	0