

Chao Xu

List of Publications by Year in descending order

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91
papers

4,181
citations

147726

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docs citations

91
times ranked

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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.	6.6	386
2	Efficient and Selective Uptake of TcO_4^- by a Cationic Metal-Organic Framework Material with Open Ag Sites. <i>Environmental Science & Technology</i> , 2017, 51, 3471-3479.	4.6	323
3	$^{99}\text{TcO}_4^-$ remediation by a cationic polymeric network. <i>Nature Communications</i> , 2018, 9, 3007.	5.8	234
4	Synthesis of novel flower-like layered double oxides/carbon dots nanocomposites for U(VI) and $^{241}\text{Am(III)}$ efficient removal: Batch and EXAFS studies. <i>Chemical Engineering Journal</i> , 2018, 332, 775-786.	6.6	211
5	Enhanced adsorption of U(VI) and $^{241}\text{Am(III)}$ from wastewater using Ca/Al layered double hydroxide@carbon nanotube composites. <i>Journal of Hazardous Materials</i> , 2018, 347, 67-77.	6.5	180
6	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.	7.2	177
7	An Ultralong, Highly Oriented Nickel-Nanowire Array Electrode Scaffold for High-Performance Compressible Pseudocapacitors. <i>Advanced Materials</i> , 2016, 28, 4105-4110.	11.1	171
8	Fluorescence sensor array based on amino acid derived carbon dots for pattern-based detection of toxic metal ions. <i>Sensors and Actuators B: Chemical</i> , 2017, 241, 1324-1330.	4.0	139
9	Solvent Extraction of Strontium and Cesium: A Review of Recent Progress. <i>Solvent Extraction and Ion Exchange</i> , 2012, 30, 623-650.	0.8	128
10	Plasma-Facilitated Synthesis of Amidoxime/Carbon Nanofiber Hybrids for Effective Enrichment of $^{238}\text{U(VI)}$ and $^{241}\text{Am(III)}$. <i>Environmental Science & Technology</i> , 2017, 51, 12274-12282.	4.6	127
11	Optimizing radionuclide sequestration in anion nanotraps with record pertechnetate sorption. <i>Nature Communications</i> , 2019, 10, 1646.	5.8	122
12	Visualization of Adsorption: Luminescent Mesoporous Silica-Carbon Dots Composite for Rapid and Selective Removal of U(VI) and in Situ Monitoring the Adsorption Behavior. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 7392-7398.	4.0	96
13	Anion-adaptive crystalline cationic material for $^{99}\text{TcO}_4^-$ trapping. <i>Nature Communications</i> , 2019, 10, 1532.	5.8	87
14	Microplasma-assisted rapid synthesis of luminescent nitrogen-doped carbon dots and their application in pH sensing and uranium detection. <i>Nanoscale</i> , 2015, 7, 20743-20748.	2.8	86
15	Selective Separation and Complexation of Trivalent Actinide and Lanthanide by a Tetradentate Soft-Hard Donor Ligand: Solvent Extraction, Spectroscopy, and DFT Calculations. <i>Inorganic Chemistry</i> , 2019, 58, 4420-4430.	1.9	84
16	Highly Efficient Separation of Trivalent Minor Actinides by a Layered Metal Sulfide (KInSn_2S_6) from Acidic Radioactive Waste. <i>Journal of the American Chemical Society</i> , 2017, 139, 16494-16497.	6.6	81
17	Efficient removal of caesium ions from aqueous solution using a calix crown ether in ionic liquids: mechanism and radiation effect. <i>Dalton Transactions</i> , 2010, 39, 3897.	1.6	79
18	Complexation of glutarimidedioxime with Fe(III), Cu(II), Pb(II), and Ni(II), the competing ions for the sequestration of U(VI) from seawater. <i>Dalton Transactions</i> , 2013, 42, 14621.	1.6	68

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19	Complexation of U(VI) with Dipicolinic Acid: Thermodynamics and Coordination Modes. <i>Inorganic Chemistry</i> , 2013, 52, 2750-2756.	1.9	64
20	Highly selective extraction of Pu (IV) and Am (III) by N,Nâ€²-diethyl-N,Nâ€²-ditolyl-2,9-diamide-1,10-phenanthroline ligand: An experimental and theoretical study. <i>Separation and Purification Technology</i> , 2019, 223, 274-281.	3.9	59
21	Unraveling the complexation mechanism of actinide(<i>iii</i>) and lanthanide(<i>iii</i>) with a new tetradentate phenanthroline-derived phosphonate ligand. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 1726-1740.	3.0	53
22	Microplasma electrochemistry controlled rapid preparation of fluorescent polydopamine nanoparticles and their application in uranium detection. <i>Chemical Engineering Journal</i> , 2018, 344, 480-486.	6.6	49
23	Interaction between Ionic Liquids and β -Cyclodextrin: A Discussion of Association Pattern. <i>Journal of Physical Chemistry B</i> , 2009, 113, 231-238.	1.2	45
24	Identification of the radiolytic product of hydrophobic ionic liquid [C4mim][NTf2] during removal of Sr ²⁺ from aqueous solution. <i>Dalton Transactions</i> , 2009, , 7873.	1.6	41
25	Highly Selective Separation of Actinides from Lanthanides by Dithiophosphinic Acids: An in-Depth Investigation on Extraction, Complexation, and DFT Calculations. <i>Inorganic Chemistry</i> , 2019, 58, 5457-5467.	1.9	41
26	Highly Efficient and Selective Dissolution Separation of Fission Products by an Ionic Liquid [Hbet][Tf ₂ N]: A New Approach to Spent Nuclear Fuel Recycling. <i>Inorganic Chemistry</i> , 2019, 58, 603-609.	1.9	40
27	Microplasma-assisted rapid, chemical oxidant-free and controllable polymerization of dopamine for surface modification. <i>Polymer Chemistry</i> , 2017, 8, 4388-4392.	1.9	38
28	Successful Decontamination of ⁹⁹ TcO ₄ ⁻ in Groundwater at Legacy Nuclear Sites by a Cationic Metalâ€“Organic Framework with Hydrophobic Pockets. <i>Angewandte Chemie</i> , 2019, 131, 5022-5026.	1.6	37
29	Selective cloud point extraction of uranium from thorium and lanthanides using Cyanex 301 as extractant. <i>Separation and Purification Technology</i> , 2019, 210, 835-842.	3.9	37
30	Quantifying the binding strength of U(<i>vi</i>) with phthalimidedioxime in comparison with glutarimidedioxime. <i>Dalton Transactions</i> , 2014, 43, 551-557.	1.6	36
31	Influence of a N-Heterocyclic Core on the Binding Capability of N,O-Hybrid Diamide Ligands toward Trivalent Lanthanides and Actinides. <i>Inorganic Chemistry</i> , 2021, 60, 8754-8764.	1.9	35
32	Ultra-Efficient Americium/Lanthanide Separation through Oxidation State Control. <i>Journal of the American Chemical Society</i> , 2022, 144, 6383-6389.	6.6	33
33	Performance and Mechanism for the Selective Separation of Trivalent Americium from Lanthanides by a Tetradentate Phenanthroline Ligand in Ionic Liquid. <i>Inorganic Chemistry</i> , 2020, 59, 3905-3911.	1.9	31
34	Unfolding the Extraction and Complexation Behaviors of Trivalent f-Block Elements by a Tetradentate N,O-Hybrid Phenanthroline Derived Phosphine Oxide Ligand. <i>Inorganic Chemistry</i> , 2021, 60, 2805-2815.	1.9	31
35	Fabrication of Magnetic Fe/Zn Layered Double Oxide@Carbon Nanotube Composites and Their Application for U(VI) and ²⁴¹ Am(III) Removal. <i>ACS Applied Nano Materials</i> , 2018, 1, 2386-2396.	2.4	30
36	Comparative study on the extraction of trivalent americium and europium by CMPO in imidazolium-based ionic liquids and dodecane. <i>Solvent Extraction and Ion Exchange</i> , 2017, 35, 408-422.	0.8	27

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37	Comparative Investigation into the Complexation and Extraction Properties of Tridentate and Tetradentate Phosphine Oxide-Functionalized 1,10-Phenanthroline Ligands toward Lanthanides and Actinides. <i>Chemistry - A European Journal</i> , 2021, 27, 10717-10730.	1.7	27
38	Investigation on the extraction of strontium ions from aqueous phase using crown ether-ionic liquid systems. <i>Science in China Series B: Chemistry</i> , 2009, 52, 1858-1864.	0.8	25
39	Development of Two novel silica based symmetric triazine-ring opening N-donor ligands functional adsorbents for highly efficient separation of palladium from HNO ₃ solution. <i>Journal of Hazardous Materials</i> , 2019, 376, 188-199.	6.5	25
40	MoO ₃ @Ni nanowire array hierarchical anode for high capacity and superior longevity all-metal-oxide asymmetric supercapacitors. <i>RSC Advances</i> , 2016, 6, 110112-110119.	1.7	23
41	A neptunium(v)-mediated interwoven transuranium-rotaxane network incorporating a mechanically interlocked [2]daisy chain unit. <i>Chemical Communications</i> , 2018, 54, 8645-8648.	2.2	21
42	Application of annular centrifugal contactors in the hot test of the improved total partitioning process for high level liquid waste. <i>Journal of Hazardous Materials</i> , 2014, 278, 566-571.	6.5	20
43	Thermodynamic and Structural Trends in Hexavalent Actinyl Cations: Complexation of Dipicolinic Acid with NpO ₂ ²⁺ and PuO ₂ ²⁺ in Comparison with UO ₂ ²⁺ . <i>Chemistry - A European Journal</i> , 2013, 19, 16690-16698.	1.7	19
44	Interactions of Bis(2,4,4-trimethylpentyl)dithiophosphinate with Nd ^{III} and Cm ^{III} in a Homogeneous Medium: A Comparative Study of Thermodynamics and Coordination Modes. <i>Chemistry - A European Journal</i> , 2014, 20, 14807-14815.	1.7	19
45	Quantitative Analysis of Surface Sites on Carbon Dots and Their Interaction with Metal Ions by a Potentiometric Titration Method. <i>Analytical Chemistry</i> , 2019, 91, 9690-9697.	3.2	19
46	Solvent Extraction of Strontium from Nitric Acid Medium by Di- <i>Tert</i> -butyl Cyclohexano-18-crown-6 in <i>N</i> -Octanol: Extraction Behavior and Flowsheet Demonstration. <i>Solvent Extraction and Ion Exchange</i> , 2013, 31, 731-742.	0.8	18
47	Flexible copper wires through galvanic replacement of zinc paste: a highly cost-effective technology for wiring flexible printed circuits. <i>Journal of Materials Chemistry C</i> , 2015, 3, 8329-8335.	2.7	18
48	Structural and Stability Trends of the Complexation of Hexavalent Actinides with Two Dipicolinic Acid Derivatives: An Experimental and Theoretical Study. <i>Inorganic Chemistry</i> , 2019, 58, 11664-11671.	1.9	18
49	Efficient separation between trivalent americium and lanthanides enabled by a phenanthroline-based polymeric organic framework. <i>Chinese Chemical Letters</i> , 2022, 33, 3429-3434.	4.8	18
50	Interactions of Bis(2,4,4-trimethylpentyl)dithiophosphinate with Trivalent Lanthanides in a Homogeneous Medium: Thermodynamics and Coordination Modes. <i>Inorganic Chemistry</i> , 2017, 56, 2556-2565.	1.9	17
51	Quantum Chemistry Study on the Extraction of Trivalent Lanthanide Series by Cyanex301: Insights from Formation of Inner- and Outer-Sphere Complexes. <i>ACS Omega</i> , 2018, 3, 4070-4080.	1.6	17
52	Substituent Effect on the Selective Separation and Complexation of Trivalent Americium and Lanthanides by N,O-Hybrid 2,9-Diamide-1,10-phenanthroline Ligands in Ionic Liquid. <i>Inorganic Chemistry</i> , 2021, 60, 5131-5139.	1.9	17
53	Novel polyazamacrocyclic receptor decorated core-shell superparamagnetic microspheres for selective binding and magnetic enrichment of palladium: synthesis, adsorptive behavior and coordination mechanism. <i>Dalton Transactions</i> , 2016, 45, 9553-9564.	1.6	16
54	Complexation of U(VI) with BiPDA, DmBiPDA, and PhenDA: Comparison on Structures and Binding Strengths in Aqueous and DMSO/20%(v)H ₂ O Solutions. <i>Inorganic Chemistry</i> , 2019, 58, 6064-6074.	1.9	15

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55	Endowing 2,6-bis-triazolyl-pyridine of poor extraction with superior efficiency for actinide/lanthanide separation at high acidity by anchoring to a macrocyclic scaffold. <i>Journal of Hazardous Materials</i> , 2021, 416, 125745.	6.5	15
56	Third Phase Formation in the Extraction of Zirconium(IV) by TRPO in Kerosene. <i>Separation Science and Technology</i> , 2013, 48, 183-191.	1.3	14
57	Formation of W/O microemulsions in the extraction of Nd(III) by bis(2,4,4-trimethylpentyl)dithiophosphinic acid and its effects on Nd(III) coordination. <i>Dalton Transactions</i> , 2016, 45, 1078-1084.	1.6	14
58	Thermodynamic Insight into the Solvation and Complexation Behavior of U(VI) in Ionic Liquid: Binding of CMPO with U(VI) Studied by Optical Spectroscopy and Calorimetry. <i>Inorganic Chemistry</i> , 2017, 56, 3014-3021.	1.9	14
59	Thermodynamic and spectroscopic study on the solvation and complexation behavior of Ln(III) in ionic liquids: binding of Ln(III) with CMPO in C ₄ mimNTf ₂ . <i>New Journal of Chemistry</i> , 2018, 42, 9098-9109.	1.4	14
60	Vapor-Phase Polymerized Poly(3,4-Ethylenedioxythiophene) on a Nickel Nanowire Array Film: Aqueous Symmetrical Pseudocapacitors with Superior Performance. <i>PLoS ONE</i> , 2016, 11, e0166529.	1.1	14
61	Extraction of U(VI) by the ionic liquid hexyltributylphosphonium bis(trifluoromethylsulfonyl)imides: An experimental and theoretical study. <i>Separation and Purification Technology</i> , 2017, 188, 386-393.	3.9	13
62	Complexation of Pu(VI) with N ₂ , N ₃ , N ₄ -tetramethyl-3-oxa-glutar-amide (TMOGA) and related ligands: optical properties and coordination modes. <i>Dalton Transactions</i> , 2018, 47, 15246-15253.	1.6	13
63	Extraction of the trivalent transplutonium actinides americium through einsteinium by the sulfur donor Cyanex 301. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 4177-4185.	3.0	13
64	Separation of Americium from Curium through Oxidation State Control with Record Efficiency. <i>Analytical Chemistry</i> , 2022, 94, 7743-7746.	3.2	13
65	Separation of Americium from Lanthanides by Purified Cyanex 301 Countercurrent Extraction in Miniature Centrifugal Contactors. <i>Procedia Chemistry</i> , 2012, 7, 172-177.	0.7	12
66	Formation of W/O Microemulsions in the Extraction of the Lanthanide Series by Purified Cyanex 301. <i>Solvent Extraction and Ion Exchange</i> , 2017, 35, 199-209.	0.8	12
67	Tremendous impact of substituent group on the extraction and selectivity to Am(III) over Eu(III) by diaryldithiophosphinic acids: experimental and DFT analysis. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2019, 320, 219-226.	0.7	12
68	A structural and thermodynamic study of the complexes of U(VI) with azinecarboxylates. <i>Dalton Transactions</i> , 2019, 48, 566-577.	1.6	11
69	Complexation and Separation of Trivalent Actinides and Lanthanides by a Novel DGA Derived from Macrocyclic Crown Ether: Synthesis, Extraction, and Spectroscopic and Density Functional Theory Studies. <i>ACS Omega</i> , 2021, 6, 2156-2166.	1.6	11
70	Selective Capture Mechanism of Radioactive Thorium from Highly Acidic Solution by a Layered Metal Sulfide. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 37308-37315.	4.0	11
71	Efficient co-extraction of strontium and cesium from nitric acid medium by mixtures of di- <i>tert</i> -butylcyclohexano-18-crown-6 and 1,3-di(2-propoxy)calix[4]arene-crown-6 in <i>n</i> -octanol. <i>Separation Science and Technology</i> , 2018, 53, 503-512.	1.3	10
72	âœSweepingâœOrtho Substituents Drive Desolvation and Overwhelm Electronic Effects in Nd ³⁺ Chelation: A Case of Three Aryldithiophosphinates. <i>Inorganic Chemistry</i> , 2020, 59, 161-171.	1.9	10

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73	Selective Extraction and Complexation Studies for Thorium(IV) with Bis-triamide Extractants: Synthesis, Solvent Extraction, EXAFS, and DFT. <i>Inorganic Chemistry</i> , 2021, 60, 14212-14220.	1.9	10
74	Adsorption behavior study and mechanism insights into novel isothiocyanate modified material towards Pd ²⁺ . <i>Separation and Purification Technology</i> , 2021, 277, 119514.	3.9	9
75	Improvement of the extraction ability of bis(2-propyloxy)calix[4]arene-crown-6 toward cesium cation by introducing an intramolecular triple cooperative effect. <i>Separation and Purification Technology</i> , 2018, 199, 97-104.	3.9	8
76	Coordination of Nd(III) and Eu(III) with monodentate organophosphorus ligands in ionic liquids: spectroscopy and thermodynamics. <i>New Journal of Chemistry</i> , 2019, 43, 3866-3873.	1.4	8
77	An innovative strategy for construction of pH-responsive supramolecular hydrogel from graphene quantum dots clusters toward integration of detection and removal of uranium. <i>Applied Surface Science</i> , 2022, 583, 152492.	3.1	8
78	Separation of americium from lanthanide by a Task-Specific ionic liquid decorated with 2,6-Bis-Triazolyl-Pyridine moiety. <i>Separation and Purification Technology</i> , 2022, 299, 121752.	3.9	8
79	Demonstration of an Improved Total Partitioning Process for High Level Liquid Waste Using Annular Centrifugal Contactors. <i>Separation Science and Technology</i> , 2015, 50, 1249-1256.	1.3	7
80	Temperature-responsive alkaline aqueous biphasic system for radioactive wastewater treatment. <i>Chinese Chemical Letters</i> , 2022, 33, 3561-3564.	4.8	7
81	A novel and versatile precursor for the synthesis of highly preorganized tetradentate ligands based on phenanthroline and their binding properties towards lanthanides(III) ions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 647, 129089.	2.3	6
82	Improving the Robustness of Trivalent Actinides/Lanthanides Separation by Bis(2,4,4-trimethylpentyl)dithiophosphinic Acid: Batch Extraction and Process Demonstration. <i>Solvent Extraction and Ion Exchange</i> , 2021, 39, 290-304.	0.8	5
83	Optically silent neptunium(V)-nitrate complex in ionic liquid. <i>Chinese Chemical Letters</i> , 2022, 33, 3531-3533.	4.8	5
84	Thermodynamic description of U(VI) solubility and hydrolysis in dilute to concentrated NaCl solutions at $T = 25, 55$ and $80\text{ }^{\circ}\text{C}$. <i>Radiochimica Acta</i> , 2019, 107, 663-678.	0.5	4
85	Probing the Difference in the Complexation of Trivalent Actinides and Lanthanides with a Tridentate N,O-Hybrid Ligand: Spectroscopy, Thermodynamics, and Coordination Modes. <i>Inorganic Chemistry</i> , 2022, 61, 6063-6072.	1.9	4
86	Ligand rigidity and electronic effect on the complexation of hexavalent plutonyl with three dicarboxylic acids: a combined spectrophotometric and computational study. <i>New Journal of Chemistry</i> , 2020, 44, 3998-4003.	1.4	2
87	Light-driven Oxidation of Pu(IV) to Pu(VI) Enables Green and Efficient Pu Recovery. <i>Chinese Journal of Chemistry</i> , 0, , .	2.6	2
88	Advances in Environmental Coordination Chemistry of Np and Pu with Inorganic Anions in Aqueous Solution. <i>Acta Chimica Sinica</i> , 2021, 79, 1415.	0.5	2
89	Complexation of U(VI) with diphenyldithiophosphinic acid: spectroscopy, structure and DFT calculations. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2018, 317, 121-129.	0.7	1
90	From S^{II} to S^{IV} : experimental and theoretical insights into the atmospheric degradation mechanism of dithiophosphinic acids. <i>RSC Advances</i> , 2020, 10, 40035-40042.	1.7	1

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91	Extraction of Ln(III) and An(III) by N,N-di(2-ethylhexyl)-thio-diglycolamic Acid. Solvent Extraction and Ion Exchange, 0, , 1-13.	0.8	0