

Ingrid J Pickering

List of Publications by Citations

Source: <https://exaly.com/author-pdf/2843354/ingrid-j-pickering-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

222 papers	13,199 citations	60 h-index	109 g-index
231 ext. papers	14,105 ext. citations	6.5 avg, IF	6.02 L-index

#	Paper	IF	Citations
222	The chemical form of mercury in fish. <i>Science</i> , 2003 , 301, 1203	33.3	1081
221	Mechanisms of Cadmium Mobility and Accumulation in Indian Mustard. <i>Plant Physiology</i> , 1995 , 109, 1427-1433	14.33	797
220	Reduction and coordination of arsenic in Indian mustard. <i>Plant Physiology</i> , 2000 , 122, 1171-7	6.6	491
219	Metal oxides as heterogeneous catalysts for oxygen evolution under photochemical conditions. <i>Journal of the Chemical Society Faraday Transactions I</i> , 1988 , 84, 2795		473
218	Biochemistry: a cadmium enzyme from a marine diatom. <i>Nature</i> , 2005 , 435, 42	50.4	439
217	Subcellular localization and speciation of nickel in hyperaccumulator and non-accumulator <i>Thlaspi</i> species. <i>Plant Physiology</i> , 2000 , 122, 1343-53	6.6	401
216	Increased glutathione biosynthesis plays a role in nickel tolerance in <i>thlaspi</i> nickel hyperaccumulators. <i>Plant Cell</i> , 2004 , 16, 2176-91	11.6	377
215	Zinc Ligands in the Metal Hyperaccumulator <i>Thlaspi caerulescens</i> As Determined Using X-ray Absorption Spectroscopy. <i>Environmental Science & Technology</i> , 1999 , 33, 713-717	10.3	347
214	Dinitrogen Cleavage by Three-Coordinate Molybdenum(III) Complexes: Mechanistic and Structural Data1. <i>Journal of the American Chemical Society</i> , 1996 , 118, 8623-8638	16.4	345
213	Photooxidation of Crude Oils. <i>Environmental Science & Technology</i> , 1998 , 32, 3719-3723	10.3	206
212	A novel arsenate reductase from the arsenic hyperaccumulating fern <i>Pteris vittata</i> . <i>Plant Physiology</i> , 2006 , 141, 1544-54	6.6	192
211	Elemental and chemically specific X-ray fluorescence imaging of biological systems. <i>Chemical Reviews</i> , 2014 , 114, 8499-541	68.1	183
210	Metal Accumulation by Aquacultured Seedlings of Indian Mustard. <i>Environmental Science & Technology</i> , 1997 , 31, 1636-1644	10.3	168
209	Localizing the biochemical transformations of arsenate in a hyperaccumulating fern. <i>Environmental Science & Technology</i> , 2006 , 40, 5010-4	10.3	168
208	Production of Se-methylselenocysteine in transgenic plants expressing selenocysteine methyltransferase. <i>BMC Plant Biology</i> , 2004 , 4, 1	5.3	166
207	Analysis of sulfur and selenium assimilation in <i>Astragalus</i> plants with varying capacities to accumulate selenium. <i>Plant Journal</i> , 2005 , 42, 785-97	6.9	154
206	Quantitative, chemically specific imaging of selenium transformation in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 10717-22	11.5	146

205	Quantitative Speciation of Selenium in Soils Using X-ray Absorption Spectroscopy. <i>Environmental Science & Technology</i> , 1995 , 29, 2456-9	10.3	146
204	Analysis of sulfur biochemistry of sulfur bacteria using X-ray absorption spectroscopy. <i>Biochemistry</i> , 2001 , 40, 8138-45	3.2	141
203	Chemical form and distribution of selenium and sulfur in the selenium hyperaccumulator <i>Astragalus bisulcatus</i> . <i>Plant Physiology</i> , 2003 , 131, 1460-7	6.6	140
202	Structural basis of the antagonism between inorganic mercury and selenium in mammals. <i>Chemical Research in Toxicology</i> , 2000 , 13, 1135-42	4	140
201	The chemical nature of mercury in human brain following poisoning or environmental exposure. <i>ACS Chemical Neuroscience</i> , 2010 , 1, 810-8	5.7	135
200	Sulfur K-edge X-ray absorption spectroscopy for determining the chemical speciation of sulfur in biological systems. <i>FEBS Letters</i> , 1998 , 441, 11-4	3.8	135
199	Molybdenum sequestration in Brassica species. A role for anthocyanins?. <i>Plant Physiology</i> , 2001 , 126, 1391-402	6.6	135
198	X-ray absorption spectroscopy of cuprous-thiolate clusters in proteins and model systems. <i>Journal of the American Chemical Society</i> , 1993 , 115, 9498-9505	16.4	135
197	A Metabolic Link between Arsenite and Selenite: The Seleno-bis(S-glutathionyl) Arsinium Ion. <i>Journal of the American Chemical Society</i> , 2000 , 122, 4637-4639	16.4	125
196	X-ray-induced photo-chemistry and X-ray absorption spectroscopy of biological samples. <i>Journal of Synchrotron Radiation</i> , 2012 , 19, 875-86	2.4	124
195	Selenium biofortification of broccoli and carrots grown in soil amended with Se-enriched hyperaccumulator <i>Stanleya pinnata</i> . <i>Food Chemistry</i> , 2015 , 166, 603-608	8.5	111
194	Localizing organomercury uptake and accumulation in zebrafish larvae at the tissue and cellular level. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 12108-12115	11.5	109
193	The active site structure of <i>Thalassiosira weissflogii</i> carbonic anhydrase 1. <i>Biochemistry</i> , 2000 , 39, 12128-30	3.0	108
192	Mapping metals in Parkinson's and normal brain using rapid-scanning x-ray fluorescence. <i>Physics in Medicine and Biology</i> , 2009 , 54, 651-63	3.8	96
191	Mercury binding to the chelation therapy agents DMSA and DMPS and the rational design of custom chelators for mercury. <i>Chemical Research in Toxicology</i> , 2004 , 17, 999-1006	4	94
190	Selenium accumulation in flowers and its effects on pollination. <i>New Phytologist</i> , 2011 , 192, 727-37	9.8	93
189	Microbial desulfurization of a crude oil middle-distillate fraction: analysis of the extent of sulfur removal and the effect of removal on remaining sulfur. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 181-8	4.8	86
188	Pb EXAFS studies on DNA quadruplexes: identification of metal ion binding site. <i>Biochemistry</i> , 2002 , 41, 12133-9	3.2	85

- 187 A Novel Protein-Bound Copper-Molybdenum Cluster. *Journal of the American Chemical Society*, **2000**, 122, 8321-8322 16.4 84
- 186 Selenium Transformations in Ponded Sediments. *Soil Science Society of America Journal*, **1996**, 60, 781-790 5 82
- 185 Prion protein expression level alters regional copper, iron and zinc content in the mouse brain. *Metallomics*, **2011**, 3, 206-14 4.5 81
- 184 Chemical speciation of accumulated metals in plants: evidence from X-ray absorption spectroscopy. *Microchemical Journal*, **2002**, 71, 255-259 4.8 81
- 183 Rapid microalgal metabolism of selenate to volatile dimethylselenide. *Plant, Cell and Environment*, **2003**, 26, 897-905 8.4 80
- 182 Coordination structure of the ferric heme iron in engineered distal histidine myoglobin mutants. *Journal of Biological Chemistry*, **1992**, 267, 22843-52 5.4 80
- 181 Chemical form matters: differential accumulation of mercury following inorganic and organic mercury exposures in zebrafish larvae. *ACS Chemical Biology*, **2012**, 7, 411-20 4.9 73
- 180 Structures of the cuprous-thiolate clusters of the Mac1 and Ace1 transcriptional activators. *Biochemistry*, **2002**, 41, 6469-76 3.2 73
- 179 X-ray absorption spectroscopy of cadmium phytochelatin and model systems. *BBA - Proteins and Proteomics*, **1999**, 1429, 351-64 73
- 178 Identification and characterization of bacteria in a selenium-contaminated hypersaline evaporation pond. *Applied and Environmental Microbiology*, **2001**, 67, 3785-94 4.8 70
- 177 Polarized X-ray Absorption Spectroscopy of Cupric Chloride Dihydrate. *Inorganic Chemistry*, **1995**, 34, 3142-3152 5.1 70
- 176 Biliary excretion of [(GS)(2)AsSe](-) after intravenous injection of rabbits with arsenite and selenate. *Chemical Research in Toxicology*, **2002**, 15, 1466-71 4 69
- 175 Pathogenic implications of distinct patterns of iron and zinc in chronic MS lesions. *Acta Neuropathologica*, **2017**, 134, 45-64 14.3 67
- 174 Diffraction anomalous fine structure: a new technique for probing local atomic environment. *Journal of the American Chemical Society*, **1993**, 115, 6302-6311 16.4 67
- 173 Structure of frataxin iron cores: an X-ray absorption spectroscopic study. *Biochemistry*, **2003**, 42, 5971-6 3.2 65
- 172 Deep desulfurization of extensively hydrodesulfurized middle distillate oil by *Rhodococcus* sp. strain ECRD-1. *Applied and Environmental Microbiology*, **2001**, 67, 1949-52 4.8 64
- 171 Metalloprotein active site structure determination: synergy between X-ray absorption spectroscopy and X-ray crystallography. *Journal of Inorganic Biochemistry*, **2012**, 115, 127-37 4.2 62
- 170 Molecular mimicry in mercury toxicology. *Chemical Research in Toxicology*, **2006**, 19, 753-9 4 62

169	The active site of arsenite oxidase from <i>Alcaligenes faecalis</i> . <i>Journal of the American Chemical Society</i> , 2002 , 124, 11276-7	16.4	62
168	Fate of selenate and selenite metabolized by <i>Rhodobacter sphaeroides</i> . <i>Applied and Environmental Microbiology</i> , 2000 , 66, 4849-53	4.8	62
167	Nickel K-edge x-ray absorption fine structure of lithium nickel oxides. <i>Journal of the American Chemical Society</i> , 1993 , 115, 4137-4144	16.4	62
166	New opportunities in XAFS investigation in the 10 keV region. <i>Solid State Communications</i> , 1994 , 92, 559-562	1.6	62
165	Tracing copper-thiomolybdate complexes in a prospective treatment for Wilson's disease. <i>Biochemistry</i> , 2009 , 48, 891-7	3.2	61
164	Mercury speciation in piscivorous fish from mining-impacted reservoirs. <i>Environmental Science & Technology</i> , 2007 , 41, 2745-9	10.3	61
163	X-ray absorption spectroscopy of selenium-containing amino acids. <i>Journal of Biological Inorganic Chemistry</i> , 1999 , 4, 791-4	3.7	60
162	Structure of Titania Sol-Gel Films: A Study by X-Ray Absorption Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 1153-1160	3.4	59
161	Selenium accumulation, distribution, and speciation in spineless prickly pear cactus: a drought- and salt-tolerant, selenium-enriched nutraceutical fruit crop for biofortified foods. <i>Plant Physiology</i> , 2011 , 155, 315-27	6.6	58
160	Chemical form of selenium in naturally selenium-rich lentils (<i>Lens culinaris</i> L.) from Saskatchewan. <i>Journal of Agricultural and Food Chemistry</i> , 2007 , 55, 7337-41	5.7	58
159	X-ray absorption spectroscopy at the sulfur K-edge: a new tool to investigate the biochemical mechanisms of neurodegeneration. <i>ACS Chemical Neuroscience</i> , 2012 , 3, 178-85	5.7	56
158	The seleno bis(S-glutathionyl) arsinium ion is assembled in erythrocyte lysate. <i>Chemical Research in Toxicology</i> , 2006 , 19, 601-7	4	56
157	Tetrathiomolybdate causes formation of hepatic copper-molybdenum clusters in an animal model of Wilson's disease. <i>Journal of the American Chemical Society</i> , 2003 , 125, 1704-5	16.4	55
156	Alteration of axial coordination by protein engineering in myoglobin. Bisimidazole ligation in the His64-->Val/Val68-->His double mutant. <i>Journal of Biological Chemistry</i> , 1995 , 270, 15993-6001	5.4	55
155	Selenium biotransformations in an insect ecosystem: effects of insects on phytoremediation. <i>Environmental Science & Technology</i> , 2004 , 38, 3581-6	10.3	54
154	Mixed Cu ⁺ and Zn ²⁺ coordination in the DNA-binding domain of the AMT1 transcription factor from <i>Candida glabrata</i> . <i>Biochemistry</i> , 1994 , 33, 9566-77	3.2	54
153	Speciation of selenium in stream insects using X-ray absorption spectroscopy. <i>Environmental Science & Technology</i> , 2007 , 41, 7683-7	10.3	53
152	Selenium Redox Reactions and Transport between Ponded Waters and Sediments. <i>Environmental Science & Technology</i> , 1997 , 31, 1419-1425	10.3	52

151	Anthocyanins facilitate tungsten accumulation in Brassica. <i>Physiologia Plantarum</i> , 2002 , 116, 351-358	4.6	52
150	X-ray Absorption Spectroscopy of Chicken Sulfite Oxidase Crystals. <i>Inorganic Chemistry</i> , 1999 , 38, 2539-2540	5.4	50
149	Presence of a copper(I)-thiolate regulatory domain in the copper-activated transcription factor Amt1. <i>Biochemistry</i> , 1996 , 35, 14583-9	3.2	50
148	XAS and microscopy studies of the uptake and bio-transformation of copper in Larrea tridentata (creosote bush). <i>Microchemical Journal</i> , 2000 , 65, 227-236	4.8	47
147	X-ray absorption spectroscopy as a probe of microbial sulfur biochemistry: the nature of bacterial sulfur globules revisited. <i>Journal of Bacteriology</i> , 2008 , 190, 6376-83	3.5	46
146	Molybdenum speciation in uranium mine tailings using X-ray absorption spectroscopy. <i>Environmental Science & Technology</i> , 2011 , 45, 455-60	10.3	45
145	Structural and biological analysis of the metal sites of Escherichia coli hydrogenase accessory protein HypB. <i>Biochemistry</i> , 2008 , 47, 11981-91	3.2	44
144	Selenium assimilation and volatilization from selenocyanate-treated Indian mustard and muskgrass. <i>Plant Physiology</i> , 2002 , 128, 625-33	6.6	43
143	Chemical forms of mercury and selenium in fish following digestion with simulated gastric fluid. <i>Chemical Research in Toxicology</i> , 2008 , 21, 2106-10	4	42
142	A neutron powder diffraction analysis of potassium-exchanged ferrierite. <i>Journal of Catalysis</i> , 1989 , 119, 261-265	7.3	41
141	Localizing the chemical forms of sulfur in vivo using X-ray fluorescence spectroscopic imaging: application to onion (Allium cepa) tissues. <i>Biochemistry</i> , 2009 , 48, 6846-53	3.2	40
140	Hydrothermal synthesis of calcium - niobium and tantalum oxides with the pyrochlore structure. <i>Materials Research Bulletin</i> , 1992 , 27, 981-988	5.1	39
139	A Multimodal Spectroscopic Imaging Method To Characterize the Metal and Macromolecular Content of Proteinaceous Aggregates ("Amyloid Plaques"). <i>Biochemistry</i> , 2017 , 56, 4107-4116	3.2	37
138	In situ biospectroscopic investigation of rapid ischemic and postmortem induced biochemical alterations in the rat brain. <i>ACS Chemical Neuroscience</i> , 2015 , 6, 226-38	5.7	37
137	Integrative assessment of selenium speciation, biogeochemistry, and distribution in a northern coldwater ecosystem. <i>Integrated Environmental Assessment and Management</i> , 2014 , 10, 543-54	2.5	37
136	The Ni(II)-binding properties of the metallochaperone SlyD. <i>Journal of the American Chemical Society</i> , 2009 , 131, 18489-500	16.4	35
135	Biofortified, selenium enriched, fruit and cladode from three Opuntia Cactus pear cultivars grown on agricultural drainage sediment for use in nutraceutical foods. <i>Food Chemistry</i> , 2012 , 135, 9-16	8.5	34
134	A high-affinity metal-binding peptide from Escherichia coli HypB. <i>Journal of the American Chemical Society</i> , 2008 , 130, 14056-7	16.4	34

133	Selenium preferentially accumulates in the eye lens following embryonic exposure: a confocal X-ray fluorescence imaging study. <i>Environmental Science & Technology</i> , 2015 , 49, 2255-61	10.3	33
132	Selenium speciation in whole sediment using X-ray absorption spectroscopy and micro X-ray fluorescence imaging. <i>Environmental Science & Technology</i> , 2010 , 44, 5389-94	10.3	33
131	The sulfur chemistry of shiitake mushroom. <i>Journal of the American Chemical Society</i> , 2004 , 126, 458-9	16.4	33
130	Selenium uptake and speciation in wild and caged fish downstream of a metal mining and milling discharge. <i>Ecotoxicology and Environmental Safety</i> , 2011 , 74, 1139-50	7	32
129	Brassica Plants to Provide Enhanced Human Mineral Nutrition: Selenium Phytoenrichment and Metabolic Transformation. <i>Journal of Medicinal Food</i> , 1998 , 1, 253-261	2.8	32
128	Methylmercury targets photoreceptor outer segments. <i>ACS Chemical Biology</i> , 2013 , 8, 2256-63	4.9	31
127	Subcellular biochemical investigation of purkinje neurons using synchrotron radiation fourier transform infrared spectroscopic imaging with a focal plane array detector. <i>ACS Chemical Neuroscience</i> , 2013 , 4, 1071-80	5.7	30
126	The chemical form of mitochondrial iron in Friedreich's ataxia. <i>Journal of Inorganic Biochemistry</i> , 2007 , 101, 957-66	4.2	30
125	X-ray absorption spectroscopy of selenate reductase. <i>Inorganic Chemistry</i> , 2004 , 43, 402-4	5.1	30
124	Managing selenium-contaminated agricultural drainage water by the integrated on-farm drainage management system: role of selenium volatilization. <i>Water Research</i> , 2002 , 36, 3150-60	12.5	30
123	Biogeochemical mechanisms of selenium exchange between water and sediments in two contrasting lentic environments. <i>Environmental Science & Technology</i> , 2011 , 45, 2605-12	10.3	29
122	In situ observation of the generation of isothiocyanates from sinigrin in horseradish and wasabi. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2001 , 1527, 156-60	4	29
121	Interaction of mercury and selenium in the larval stage zebrafish vertebrate model. <i>Metallomics</i> , 2015 , 7, 1247-55	4.5	28
120	Selenium bioaccumulation and speciation in <i>Chironomus dilutus</i> exposed to water-borne selenate, selenite, or seleno-DL-methionine. <i>Environmental Toxicology and Chemistry</i> , 2011 , 30, 2292-9	3.8	28
119	Biotransformation of selenium and arsenic in multi-species biofilm. <i>Environmental Chemistry</i> , 2011 , 8, 543	3.2	27
118	Selenium-mediated arsenic excretion in mammals: a synchrotron-based study of whole-body distribution and tissue-specific chemistry. <i>Metallomics</i> , 2017 , 9, 1585-1595	4.5	26
117	The solution structure of the copper clioquinol complex. <i>Journal of Inorganic Biochemistry</i> , 2014 , 133, 50-6	4.2	26
116	Long-range chemical sensitivity in the sulfur K-edge X-ray absorption spectra of substituted thiophenes. <i>Journal of Physical Chemistry A</i> , 2014 , 118, 7796-802	2.8	26

- 115 Dynamic accumulation and redistribution of methylmercury in the lens of developing zebrafish embryos and larvae. *Journal of Biological Inorganic Chemistry*, **2010**, 15, 1137-45 3.7 26
- 114 Arsenic accumulation, biotransformation and localisation in bertha armyworm moths. *Environmental Chemistry*, **2008**, 5, 413 3.2 26
- 113 Using softer X-ray absorption spectroscopy to probe biological systems. *Journal of Synchrotron Radiation*, **2005**, 12, 392-401 2.4 26
- 112 Rethinking the Minamata Tragedy: What Mercury Species Was Really Responsible?. *Environmental Science & Technology*, **2020**, 54, 2726-2733 10.3 25
- 111 The chemical forms of mercury in human hair: a study using X-ray absorption spectroscopy. *Journal of Biological Inorganic Chemistry*, **2010**, 15, 709-15 3.7 25
- 110 Novel bio-spectroscopic imaging reveals disturbed protein homeostasis and thiol redox with protein aggregation prior to hippocampal CA1 pyramidal neuron death induced by global brain ischemia in the rat. *Free Radical Biology and Medicine*, **2015**, 89, 806-18 7.8 24
- 109 The fictile coordination chemistry of cuprous-thiolate sites in copper chaperones. *Biochimica Et Biophysica Acta - Bioenergetics*, **2012**, 1817, 938-47 4.6 24
- 108 Binding of Copper and Cisplatin to Atox1 Is Mediated by Glutathione through the Formation of Metal-Sulfur Clusters. *Biochemistry*, **2017**, 56, 3129-3141 3.2 23
- 107 Distribution of selenium in zebrafish larvae after exposure to organic and inorganic selenium forms. *Metallomics*, **2016**, 8, 305-12 4.5 23
- 106 Bioavailability, toxicity and biotransformation of selenium in midge (*Chironomus dilutus*) larvae exposed via water or diet to elemental selenium particles, selenite, or selenized algae. *Environmental Science & Technology*, **2013**, 47, 584-92 10.3 23
- 105 Sulfur X-ray absorption spectroscopy of living mammalian cells: an enabling tool for sulfur metabolomics. In situ observation of uptake of taurine into MDCK cells. *Biochemistry*, **2007**, 46, 14735-41 3.2 23
- 104 Quantification, localization, and speciation of selenium in seeds of canola and two mustard species compared to seed-meals produced by hydraulic press. *Analytical Chemistry*, **2012**, 84, 6024-30 7.8 22
- 103 Strong poison revisited. *Journal of Inorganic Biochemistry*, **2007**, 101, 1891-3 4.2 22
- 102 Synthesis, purification, and structural characterization of the dimethyldiselenoarsinate anion. *Inorganic Chemistry*, **2002**, 41, 5426-32 5.1 22
- 101 Direct Observation of Methylmercury and Auranofin Binding to Selenocysteine in Thioredoxin Reductase. *Inorganic Chemistry*, **2020**, 59, 2711-2718 5.1 21
- 100 Multispecies Biofilms Transform Selenium Oxyanions into Elemental Selenium Particles: Studies Using Combined Synchrotron X-ray Fluorescence Imaging and Scanning Transmission X-ray Microscopy. *Environmental Science & Technology*, **2016**, 50, 10343-10350 10.3 21
- 99 Proteomics of *Desulfovibrio desulfuricans* and X-ray absorption spectroscopy to investigate mercury methylation in the presence of selenium. *Metallomics*, **2014**, 6, 465-75 4.5 21
- 98 Human cytosolic iron regulatory protein 1 contains a linear iron-sulfur cluster. *Journal of the American Chemical Society*, **2001**, 123, 10121-2 16.4 21

97	A neutron powder diffraction study of the ordering in $\text{Li}_x\text{Ni}_{1-x}\text{O}$. <i>Solid State Ionics</i> , 1992 , 53-56, 405-412	3.3	21
96	Tuning the metabolism of the anticancer drug cisplatin with chemoprotective agents to improve its safety and efficacy. <i>Metallomics</i> , 2016 , 8, 1170-1176	4.5	21
95	Evaluation of the macroalga, muskgrass, for the phytoremediation of selenium-contaminated agricultural drainage water by microcosms. <i>Journal of Environmental Quality</i> , 2002 , 31, 2104-10	3.4	20
94	Thioredoxin h overexpressed in barley seeds enhances selenite resistance and uptake during germination and early seedling development. <i>Planta</i> , 2003 , 218, 186-91	4.7	20
93	X-ray Absorption Spectroscopy Investigations of Copper(II) Coordination in the Human Amyloid β Peptide. <i>Inorganic Chemistry</i> , 2019 , 58, 6294-6311	5.1	19
92	The chemical forms of mercury and selenium in whale skeletal muscle. <i>Metallomics</i> , 2011 , 3, 1232-7	4.5	19
91	Synthesis, X-ray absorption spectroscopy and purification of the seleno-bis (S-glutathionyl) arsinium anion from selenide, arsenite and glutathione. <i>Journal of Organometallic Chemistry</i> , 2002 , 650, 108-113	2.3	19
90	New opportunities in 10 keV spectroscopy. <i>Physica B: Condensed Matter</i> , 1995 , 208-209, 220-222	2.8	19
89	X-ray absorption spectroscopy of <i>Pyrococcus furiosus</i> rubredoxin. <i>Journal of Biological Inorganic Chemistry</i> , 1996 , 1, 226-230	3.7	19
88	Evaluating the trophic transfer of selenium in aquatic ecosystems using caged fish, X-ray absorption spectroscopy and stable isotope analysis. <i>Ecotoxicology and Environmental Safety</i> , 2011 , 74, 1855-63	7	17
87	The chemical forms of mercury in aged and fresh dental amalgam surfaces. <i>Chemical Research in Toxicology</i> , 2009 , 22, 1761-4	4	17
86	Imaging of selenium in plants using tapered metal monocapillary optics. <i>Journal of Synchrotron Radiation</i> , 2003 , 10, 289-90	2.4	17
85	X-ray spectroscopy and imaging of selenium in living systems. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018 , 1862, 2383-2392	4	16
84	A new type of metal-binding site in cobalt- and zinc-containing adenylate kinases isolated from sulfate-reducers <i>Desulfovibrio gigas</i> and <i>Desulfovibrio desulfuricans</i> ATCC 27774. <i>Journal of Inorganic Biochemistry</i> , 2008 , 102, 1380-95	4.2	16
83	X-ray absorption spectroscopy of cuprous-thiolate clusters in <i>Saccharomyces cerevisiae</i> metallothionein. <i>Chemistry and Biodiversity</i> , 2008 , 5, 2042-9	2.5	16
82	X-ray absorption spectroscopy study shows that the rapid selenium volatilizer, pickleweed (<i>Salicornia bigelovii</i> Torr.), reduces selenate to organic forms without the aid of microbes. <i>Planta</i> , 2001 , 213, 977-80	4.7	16
81	Transition metal framework substitutions in sodalites. <i>Solid State Ionics</i> , 1992 , 53-56, 1282-1291	3.3	16
80	Elemental characterisation of the pyramidal neuron layer within the rat and mouse hippocampus. <i>Metallomics</i> , 2019 , 11, 151-165	4.5	15

79	Imaging Taurine in the Central Nervous System Using Chemically Specific X-ray Fluorescence Imaging at the Sulfur K-Edge. <i>Analytical Chemistry</i> , 2016 , 88, 10916-10924	7.8	15
78	Photochemically Generated Thiyl Free Radicals Observed by X-ray Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2017 , 139, 11519-11526	16.4	15
77	Towards a custom chelator for mercury: evaluation of coordination environments by molecular modeling. <i>Journal of Biological Inorganic Chemistry</i> , 2011 , 16, 15-24	3.7	15
76	Quantitative studies of gas-solid reactions by powder X-ray diffraction: stoichiometric and catalytic conversion of CO to CO ₂ over YBa ₂ Cu ₃ O _{6-x} . <i>Journal of the Chemical Society, Faraday Transactions</i> , 1991 , 87, 3067-3075		15
75	Superior spatial resolution in confocal X-ray techniques using collimating channel array optics: elemental mapping and speciation in archaeological human bone. <i>Journal of Analytical Atomic Spectrometry</i> , 2017 , 32, 527-537	3.7	14
74	Layer perfection in ultrathin InAs quantum wells in GaAs(001). <i>Physical Review B</i> , 2000 , 61, 2073-2084	3.3	14
73	Disruption of selenium transport and function is a major contributor to mercury toxicity in zebrafish larvae. <i>Metallomics</i> , 2019 , 11, 621-631	4.5	13
72	Confocal x-ray Fluorescence Imaging Facilitates High-Resolution Elemental Mapping in Fragile Archaeological Bone. <i>Archaeometry</i> , 2016 , 58, 207-217	1.6	13
71	Application of a spoked channel array to confocal X-ray fluorescence imaging and X-ray absorption spectroscopy of medieval stained glass. <i>Journal of Analytical Atomic Spectrometry</i> , 2015 , 30, 759-766	3.7	13
70	EVIDENCE FOR BIOGENIC COPPER (HEMOCYANIN) IN THE MIDDLE CAMBRIAN ARTHROPOD MARRELLA FROM THE BURGESS SHALE. <i>Palaios</i> , 2014 , 29, 512-524	1.6	13
69	The Unexpected Role of Se Species in Epoxidations with Benzeneseleninic Acid and Hydrogen Peroxide. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 4283-4287	16.4	13
68	Cryoprotectants Severely Exacerbate X-ray-Induced Photoreduction. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 540-544	6.4	12
67	Chemical basis for the detoxification of cisplatin-derived hydrolysis products by sodium thiosulfate. <i>Journal of Inorganic Biochemistry</i> , 2016 , 162, 96-101	4.2	12
66	Chemical Biology in the Embryo: In Situ Imaging of Sulfur Biochemistry in Normal and Proteoglycan-Deficient Cartilage Matrix. <i>Biochemistry</i> , 2016 , 55, 2441-51	3.2	12
65	Ajothiolanes: 3,4-Dimethylthiolane Natural Products from Garlic (<i>Allium sativum</i>). <i>Journal of Agricultural and Food Chemistry</i> , 2018 , 66, 10193-10204	5.7	12
64	X-RAY ABSORPTION SPECTROSCOPY IN BIOLOGY AND CHEMISTRY 2007 , 97-119		12
63	Synchrotron X-ray fluorescence imaging evidence of biogenic mercury identified in a burial in colonial Antigua. <i>Journal of Archaeological Science</i> , 2015 , 58, 26-30	2.9	11
62	Observation of the seleno bis-(S-glutathionyl) arsinium anion in rat bile. <i>Journal of Inorganic Biochemistry</i> , 2016 , 158, 24-29	4.2	11

61	Selenium biotransformations in an engineered aquatic ecosystem for bioremediation of agricultural wastewater via brine shrimp production. <i>Environmental Science & Technology</i> , 2013 , 47, 5057-65	10.3	11
60	Structural characterization of Cd ²⁺ complexes in solution with DMSA and DMPS. <i>Journal of Inorganic Biochemistry</i> , 2014 , 136, 99-106	4.2	11
59	Selenium speciation and localization in chironomids from lakes receiving treated metal mine effluent. <i>Chemosphere</i> , 2012 , 89, 274-9	8.4	11
58	Arsenic K-edge X-ray absorption spectroscopy of arsenic in seafood. <i>Molecular Nutrition and Food Research</i> , 2009 , 53, 552-7	5.9	11
57	Site-Specific X-ray Absorption Spectroscopy Using DIFFRAXAFS. <i>Japanese Journal of Applied Physics</i> , 1993 , 32, 206	1.4	11
56	X-ray absorption spectroscopy of bacterial sulfur globules. <i>Microbiology (United Kingdom)</i> , 2002 , 148, 2267-2268	2.9	11
55	Soft tissue measurement of arsenic and selenium in an animal model using portable X-ray fluorescence. <i>Radiation Physics and Chemistry</i> , 2015 , 116, 241-247	2.5	10
54	Laminar-specific distribution of zinc: evidence for presence of layer IV in forelimb motor cortex in the rat. <i>NeuroImage</i> , 2014 , 103, 502-510	7.9	10
53	The use of field-based mesocosm systems to assess the effects of uranium milling effluent on fathead minnow (<i>Pimephales promelas</i>) reproduction. <i>Ecotoxicology</i> , 2011 , 20, 1209-24	2.9	10
52	A Photochemically Generated Selenyl Free Radical Observed by High Energy Resolution Fluorescence Detected X-ray Absorption Spectroscopy. <i>Inorganic Chemistry</i> , 2018 , 57, 10867-10872	5.1	10
51	Phenylthiourea alters toxicity of mercury compounds in zebrafish larvae. <i>Journal of Inorganic Biochemistry</i> , 2015 , 151, 10-7	4.2	9
50	Sample preparation with sucrose cryoprotection dramatically alters Zn distribution in the rodent hippocampus, as revealed by elemental mapping. <i>Journal of Analytical Atomic Spectrometry</i> , 2020 , 35, 2498-2508	3.7	9
49	Chemical Sensitivity of the Sulfur K-Edge X-ray Absorption Spectra of Organic Disulfides. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 7279-86	2.8	9
48	Sulfur K α X-ray emission spectroscopy: comparison with sulfur K-edge X-ray absorption spectroscopy for speciation of organosulfur compounds. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 4500-4508	3.6	9
47	Arsenic transfer and biotransformation in a fully characterized freshwater food web. <i>Coordination Chemistry Reviews</i> , 2016 , 306, 558-565	23.2	8
46	Insights into the Nature of the Chemical Bonding in Thiophene-2-thiol from X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 6929-33	2.8	8
45	X-ray Absorption Spectroscopy of Aliphatic Organic Sulfides. <i>Journal of Physical Chemistry A</i> , 2017 , 121, 6256-6261	2.8	8
44	Synchrotron X-ray absorption spectroscopy analysis of arsenic chemical speciation in human nail clippings. <i>Environmental Chemistry</i> , 2014 , 11, 632	3.2	7

43	Insect excretes unusual six-coordinate pentavalent arsenic species. <i>Environmental Chemistry</i> , 2009 , 6, 298	3.2	7
42	Chapter 5 Inorganic Molecular Toxicology and Chelation Therapy of Heavy Metals and Metalloids. <i>Advances in Molecular Toxicology</i> , 2008 , 2, 123-152	0.4	7
41	More on Molecular Mimicry in Mercury Toxicology. <i>Chemical Research in Toxicology</i> , 2006 , 19, 1118-1120	4	7
40	Time-resolved in situ x-ray diffraction studies of a lithium nickel oxide catalyst during the oxidative coupling of methane. <i>Chemistry of Materials</i> , 1992 , 4, 994-999	9.6	7
39	Microbial Desulfurization of a Crude Oil Middle-Distillate Fraction: Analysis of the Extent of Sulfur Removal and the Effect of Removal on Remaining Sulfur. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 3264-3264	4.8	7
38	Disulfide Bonds Play a Critical Role in the Structure and Function of the Receptor-binding Domain of the SARS-CoV-2 Spike Antigen. <i>Journal of Molecular Biology</i> , 2021 , 434, 167357	6.5	7
37	Effects of inorganic mercury on the olfactory pits of zebrafish larvae. <i>Metallomics</i> , 2016 , 8, 514-7	4.5	7
36	An in situ assessment of selenium bioaccumulation from water-, sediment-, and dietary-exposure pathways using caged <i>Chironomus dilutus</i> larvae. <i>Environmental Toxicology and Chemistry</i> , 2013 , 32, 2836-48	2.8	6
35	Insights into the Chemical Biology of Selenium. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2008 , 183, 924-930	1	6
34	X-Ray Absorption Spectroscopy Imaging of Biological Tissues. <i>AIP Conference Proceedings</i> , 2007 ,	0	6
33	Probing Changes in the Structure and Performance of a Lithium Nickel Oxide Catalyst by in situ X-Ray Diffraction During the High-Temperature Oxidative Coupling of Methane. <i>Angewandte Chemie International Edition in English</i> , 1989 , 28, 808-810		6
32	A comparison of parametric and integrative approaches for X-ray fluorescence analysis applied to a Stroke model. <i>Journal of Synchrotron Radiation</i> , 2018 , 25, 1780-1789	2.4	6
31	Use of Soller slits to remove reference foil fluorescence from transmission spectra. <i>Journal of Synchrotron Radiation</i> , 2011 , 18, 527-9	2.4	5
30	PBT2 acts through a different mechanism of action than other 8-hydroxyquinolines: an X-ray fluorescence imaging study. <i>Metallomics</i> , 2020 , 12, 1979-1994	4.5	5
29	Copper(II) Binding to PBT2 Differs from That of Other 8-Hydroxyquinoline Chelators: Implications for the Treatment of Neurodegenerative Protein Misfolding Diseases. <i>Inorganic Chemistry</i> , 2020 , 59, 17519-17534	5.1	5
28	Human red blood cell uptake and sequestration of arsenite and selenite: Evidence of seleno-bis(S-glutathionyl) arsinium ion formation in human cells. <i>Biochemical Pharmacology</i> , 2020 , 180, 114141	6	4
27	Structural Characterization of the Solution Chemistry of Zirconium(IV) Desferrioxamine: A Coordination Sphere Completed by Hydroxides. <i>Inorganic Chemistry</i> , 2020 , 59, 17443-17452	5.1	4
26	High Energy Resolution Fluorescence Detected X-ray Absorption Spectroscopy: An Analytical Method for Selenium Speciation. <i>Analytical Chemistry</i> , 2021 , 93, 9235-9243	7.8	4

25	Wide field imaging energy dispersive X-ray absorption spectroscopy. <i>Scientific Reports</i> , 2019 , 9, 17734	4.9	4
24	Studies of selenium and arsenic mutual protection in human HepG2 cells. <i>Chemico-Biological Interactions</i> , 2020 , 327, 109162	5	3
23	Development of a combined K-edge subtraction and fluorescence subtraction imaging system for small animals. <i>Review of Scientific Instruments</i> , 2008 , 79, 085102	1.7	3
22	Comparison of iodine K-edge subtraction and fluorescence subtraction imaging in an animal system. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008 , 594, 283-291	1.2	3
21	Solution Chemistry of Copper(II) Binding to Substituted 8-Hydroxyquinolines. <i>Inorganic Chemistry</i> , 2020 , 59, 13858-13874	5.1	3
20	Spike protein disulfide disruption as a potential treatment for SARS-CoV-2		3
19	Sulfur K-Edge X-ray Absorption Spectroscopy of Aryl and Aryl-Alkyl Sulfides. <i>Journal of Physical Chemistry A</i> , 2019 , 123, 2861-2866	2.8	2
18	Reply to Comments on "Rethinking the Minamata Tragedy: What Mercury Species Was Really Responsible?". <i>Environmental Science & Technology</i> , 2020 , 54, 8488-8490	10.3	2
17	X-ray-Induced Photoreduction of Hg(II) in Aqueous Frozen Solution Yields Nearly Monatomic Hg(0). <i>Inorganic Chemistry</i> , 2018 , 57, 8205-8210	5.1	2
16	X-ray absorption spectroscopy at a protein crystallography facility: the Canadian Light Source beamline 08B1-1. <i>Journal of Synchrotron Radiation</i> , 2012 , 19, 887-91	2.4	2
15	Identification of lithium atoms in solid oxides: A high-resolution electron microscopic study of LiMn2O4. <i>Journal of Solid State Chemistry</i> , 1989 , 79, 112-118	3.3	2
14	X-ray absorption spectroscopy of organic sulfoxides.. <i>RSC Advances</i> , 2020 , 10, 26229-26238	3.7	2
13	Visualizing sulfur with X-rays: From molecules to tissues. <i>Phosphorus, Sulfur and Silicon and the Related Elements</i> , 2019 , 194, 618-623	1	1
12	Reply to Comments on "Rethinking the Minamata Tragedy: What Mercury Species Was Really Responsible?". <i>Environmental Science & Technology</i> , 2020 , 54, 8484-8485	10.3	1
11	The Unexpected Role of SeVI Species in Epoxidations with Benzeneseleninic Acid and Hydrogen Peroxide. <i>Angewandte Chemie</i> , 2020 , 132, 4313-4317	3.6	1
10	Probing changes in the structure and performance of a lithium nickel oxide catalyst by in situ X-ray diffraction during the high temperature oxidative coupling of methane. <i>Advanced Materials</i> , 1989 , 1, 194-196	24	1
9	Mercury L _{II} High Energy Resolution Fluorescence Detected X-ray Absorption Spectroscopy: A Versatile Speciation Probe for Mercury.. <i>Inorganic Chemistry</i> , 2022 ,	5.1	1
8	Hg(II) Binding to Thymine Bases in DNA. <i>Inorganic Chemistry</i> , 2021 , 60, 7442-7452	5.1	1

- 7 Diffraction anomalous fine structure: A new technique for Probing Local Atomic Environment. *Materials Research Society Symposia Proceedings*, **1993**, 307, 15 0
- 6 Oxygen K-edge X-ray absorption spectra of liquids with minimization of window contamination. *Journal of Synchrotron Radiation*, **2021**, 28, 1845-1849 2.4 0
- 5 SSRL workshops on x-ray absorption spectroscopy. *Synchrotron Radiation News*, **1994**, 7, 17-17 0.6
- 4 Gas/Solid interactions studied by quantitative powder X-ray diffraction analysis. *Journal of the Chemical Society, Faraday Transactions*, **1991**, 87, 3063-3066
- 3 Abridged spectral matrix inversion: parametric fitting of X-ray fluorescence spectra following integrative data reduction. *Journal of Synchrotron Radiation*, **2021**, 28, 1881-1890 2.4
- 2 Synchrotron studies of selenium interactions with heavy elements **2015**, 43-44
- 1 The chemical form of selenium in dietary supplements **2015**, 193-194