

Nelson Belzile

List of Publications by Year in descending order

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97
papers

6,250
citations

94269

37
h-index

66788

78
g-index

97
all docs

97
docs citations

97
times ranked

5012
citing authors

#	ARTICLE	IF	CITATIONS
1	Antimony in the environment: a review focused on natural waters. <i>Earth-Science Reviews</i> , 2002, 57, 125-176.	4.0	999
2	Antimony in the environment: a review focused on natural waters. <i>Earth-Science Reviews</i> , 2002, 59, 265-285.	4.0	558
3	Antimony in the environment: knowns and unknowns. <i>Environmental Chemistry</i> , 2009, 6, 95.	0.7	293
4	Oxidation of antimony (III) by amorphous iron and manganese oxyhydroxides. <i>Chemical Geology</i> , 2001, 174, 379-387.	1.4	251
5	A review on pyrrhotite oxidation. <i>Journal of Geochemical Exploration</i> , 2004, 84, 65-76.	1.5	250
6	Selenium and mercury in organisms: Interactions and mechanisms. <i>Environmental Reviews</i> , 2008, 16, 71-92.	2.1	245
7	Antimony in the environment: A review focused on natural waters. III. Microbiota relevant interactions. <i>Earth-Science Reviews</i> , 2007, 80, 195-217.	4.0	214
8	Testing readsorption of trace elements during partial chemical extractions of bottom sediments. <i>Environmental Science & Technology</i> , 1989, 23, 1015-1020.	4.6	200
9	Speciation and adsorption of arsenic on diagenetic iron oxyhydroxides. <i>Limnology and Oceanography</i> , 1991, 36, 1480-1485.	1.6	180
10	Thallium in the environment: A critical review focused on natural waters, soils, sediments and airborne particles. <i>Applied Geochemistry</i> , 2017, 84, 218-243.	1.4	149
11	The effect of selenium on mercury assimilation by freshwater organisms. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2006, 63, 1-10.	0.7	135
12	Electron microscopy of aquatic colloids: Non-perturbing preparation of specimens in the field. <i>Water Research</i> , 1991, 25, 1333-1343.	5.3	112
13	Antagonistic effect of selenium on mercury assimilation by fish populations near Sudbury metal smelters?. <i>Limnology and Oceanography</i> , 2001, 46, 1814-1818.	1.6	95
14	Distribution and Early Diagenesis of Antimony Species in Sediments and Porewaters of Freshwater Lakes. <i>Environmental Science & Technology</i> , 2003, 37, 1163-1168.	4.6	93
15	Gut Sediments in a Burrowing Mayfly (Ephemeroptera, <i>Hexagenia limbata</i>): Their Contribution to Animal Trace Element Burdens, Their Removal, and the Efficacy of a Correction for Their Presence. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 1989, 46, 451-456.	0.7	89
16	Human Exposure to Antimony: I. Sources and Intake. <i>Critical Reviews in Environmental Science and Technology</i> , 2011, 41, 1309-1373.	6.6	86
17	Tellurium in the environment: A critical review focused on natural waters, soils, sediments and airborne particles. <i>Applied Geochemistry</i> , 2015, 63, 83-92.	1.4	85
18	Antimony speciation at ultra trace levels using hydride generation atomic fluorescence spectrometry and 8-hydroxyquinoline as an efficient masking agent. <i>Analytica Chimica Acta</i> , 2001, 432, 293-302.	2.6	82

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19	Coagulation/sedimentation of submicron iron particles in a eutrophic lake. <i>Water Research</i> , 1995, 29, 617-632.	5.3	78
20	Early diagenetic behaviour of selenium in freshwater sediments. <i>Applied Geochemistry</i> , 2000, 15, 1439-1454.	1.4	78
21	Sediment trace metal profiles in lakes of Killarney Park, Canada. <i>Environmental Pollution</i> , 2004, 130, 239-248.	3.7	78
22	Natural attenuation processes applying to antimony: A study in the abandoned antimony mine in Goesdorf, Luxembourg. <i>Science of the Total Environment</i> , 2009, 407, 6205-6216.	3.9	73
23	High performance liquid chromatography coupled to atomic fluorescence spectrometry for the speciation of the hydride and chemical vapour-forming elements As, Se, Sb and Hg: A critical review. <i>Analytica Chimica Acta</i> , 2010, 671, 9-26.	2.6	73
24	Inhibition of pyrite oxidation by surface treatment. <i>Science of the Total Environment</i> , 1997, 196, 177-186.	3.9	72
25	Capture of arsenic by pyrite in near-shore marine sediments. <i>Chemical Geology</i> , 1986, 54, 279-281.	1.4	71
26	In situ collection of diagenetic iron and manganese oxyhydroxides from natural sediments. <i>Nature</i> , 1989, 340, 376-377.	13.7	68
27	Determination of mercury by continuous flow cold vapor atomic fluorescence spectrometry using micromolar concentration of sodium tetrahydroborate as reductant solution. <i>Analyst, The</i> , 2002, 127, 1541-1546.	1.7	61
28	Characterization of humic substances extracted from Canadian lake sediments. <i>Canadian Journal of Chemistry</i> , 1997, 75, 14-27.	0.6	59
29	Behaviour of Sb(V) in the presence of dissolved sulfide under controlled anoxic aqueous conditions. <i>Chemical Geology</i> , 2009, 262, 179-185.	1.4	58
30	Observations on the diagenetic behavior of arsenic in a deep coastal sediment. <i>Biogeochemistry</i> , 1986, 2, 359-376.	1.7	57
31	Adsorption of Cu ²⁺ on coal fly ash modified with functionalized mesoporous silica. <i>Fuel</i> , 2015, 156, 96-102.	3.4	54
32	Detoxification of selenite and mercury by reduction and mutual protection in the assimilation of both elements by <i>Pseudomonas fluorescens</i> . <i>Science of the Total Environment</i> , 2006, 367, 704-714.	3.9	51
33	Extraction of lithium from salt lake brine with triisobutyl phosphate in ionic liquid and kerosene. <i>Chemical Research in Chinese Universities</i> , 2015, 31, 621-626.	1.3	49
34	The passivation of pyrrhotite by surface coating. <i>Chemosphere</i> , 2005, 61, 659-667.	4.2	43
35	Extraction and determination of elemental selenium in sediments—A comparative study. <i>Analytica Chimica Acta</i> , 2006, 577, 126-133.	2.6	41
36	Inverse relationships between selenium and mercury in tissues of young walleye (<i>Stizosedion vitreum</i>) from Canadian boreal lakes. <i>Science of the Total Environment</i> , 2010, 408, 1676-1683.	3.9	41

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37	A glove box for the fine-scale subsampling of sediment box cores. <i>Sedimentology</i> , 1986, 33, 147-150.	1.6	40
38	Adsorption behaviors of phenanthrene and bisphenol A in purple paddy soils amended with straw-derived DOM in the West Sichuan Plain of China. <i>Ecotoxicology and Environmental Safety</i> , 2019, 169, 737-746.	2.9	39
39	Application of photochemical reactions of Se in natural waters by hydride generation atomic fluorescence spectrometry. <i>Analytica Chimica Acta</i> , 2005, 545, 142-148.	2.6	38
40	Abiotic formation of elemental selenium and role of iron oxide surfaces. <i>Chemosphere</i> , 2009, 74, 1079-1084.	4.2	37
41	Whole-lake algal responses to a century of acidic industrial deposition on the Canadian Shield. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2002, 59, 483-493.	0.7	35
42	Photochemical behavior of inorganic and organic selenium compounds in various aqueous solutions. <i>Analytica Chimica Acta</i> , 2005, 545, 149-157.	2.6	34
43	Preventing oxidation of iron sulfide minerals by polyethylene polyamines. <i>Minerals Engineering</i> , 2006, 19, 19-27.	1.8	32
44	Biogeochemical Mechanisms of Selenium Exchange between Water and Sediments in Two Contrasting Lentic Environments. <i>Environmental Science & Technology</i> , 2011, 45, 2605-2612.	4.6	32
45	Sediment diffusive fluxes of Fe, Mn, and P in a eutrophic lake: Contribution from lateral vs bottom sediments. <i>Aquatic Sciences</i> , 1996, 58, 327-354.	0.6	30
46	Selenium Bioaccumulation in Freshwater Organisms and Antagonistic Effect against Mercury Assimilation. <i>Environmental Bioindicators</i> , 2009, 4, 203-221.	0.4	30
47	Determination of elemental sulfur in environmental samples by gas chromatography-mass spectrometry. <i>Chemical Geology</i> , 1997, 137, 195-200.	1.4	29
48	Selective adsorption of uranyl and potentially toxic metal ions at the core-shell MFe ₂ O ₄ -TiO ₂ (M=Mn, Fe) by adsorption. <i>Journal of Hazardous Materials</i> , 2010, 179, 100-107.	6.5	29
49	Effect of sulfide, selenite and mercuric mercury on the growth and methylation capacity of the sulfate reducing bacterium <i>Desulfovibrio desulfuricans</i> . <i>Science of the Total Environment</i> , 2013, 449, 373-384.	3.9	27
50	Valence properties of tellurium in different chemical systems and its determination in refractory environmental samples using hydride generation atomic fluorescence spectroscopy. <i>Analytica Chimica Acta</i> , 2016, 905, 42-50.	2.6	27
51	Elemental Contaminants in Livers of Mute Swans on Lakes Erie and St. Clair. <i>Archives of Environmental Contamination and Toxicology</i> , 2011, 61, 677-687.	2.1	26
52	Human Exposure to Antimony. II. Contents in Some Human Tissues Often Used in Biomonitoring (Hair, Nails, Urine, Blood, and Hair). <i>Environmental Science and Technology</i> , 2013, 47, 2071-2076.	6.6	26
53	Human Exposure to Antimony. IV. Contents in Human Blood. <i>Critical Reviews in Environmental Science and Technology</i> , 2013, 43, 2071-2105.	6.6	26
54	Human Exposure to Antimony. III. Contents in Some Human Excreted Biofluids (Urine, Milk, Saliva). <i>Critical Reviews in Environmental Science and Technology</i> , 2013, 43, 162-214.	6.6	26

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55	Proteomics of <i>Desulfovibrio desulfuricans</i> and X-ray absorption spectroscopy to investigate mercury methylation in the presence of selenium. <i>Metallomics</i> , 2014, 6, 465.	1.0	25
56	Low volume microwave digestion and direct determination of selenium in biological samples by hydride generation-atomic fluorescence spectrometry. <i>Analytica Chimica Acta</i> , 2010, 665, 123-128.	2.6	24
57	Enhanced kinetics and super selectivity toward Cs ⁺ in multicomponent aqueous solutions: A robust Prussian blue analogue/polyvinyl chloride composite membrane. <i>Environmental Research</i> , 2020, 189, 109952.	3.7	24
58	Seasonal variations of arsenic at the sediment-water interface of Poyang Lake, China. <i>Applied Geochemistry</i> , 2014, 47, 170-176.	1.4	23
59	The competitive role of organic carbon and dissolved sulfide in controlling the distribution of mercury in freshwater lake sediments. <i>Science of the Total Environment</i> , 2008, 405, 226-238.	3.9	21
60	Simple and energy-saving modifications of coal fly ash to remove simultaneously six toxic metal cations from mine effluents. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 5498-5509.	3.3	21
61	Distribution characteristics, potential contribution, and management strategy of crop straw and livestock-poultry manure in multi-ethnic regions of China: A critical evaluation. <i>Journal of Cleaner Production</i> , 2020, 274, 123174.	4.6	21
62	Arsenic speciation in surface waters and lake sediments in an abandoned mine site and field observations of arsenic eco-toxicity. <i>Journal of Geochemical Exploration</i> , 2019, 205, 106349.	1.5	20
63	Improvements of reliability for methylmercury determination in environmental samples. <i>Analytica Chimica Acta</i> , 2009, 633, 157-164.	2.6	18
64	Evidences of non-reactive mercury-selenium compounds generated from cultures of <i>Pseudomonas fluorescens</i> . <i>Science of the Total Environment</i> , 2011, 409, 1697-1703.	3.9	18
65	Microwave Digestion of Environmental and Natural Waters for Selenium Speciation. <i>Analytical Chemistry</i> , 2001, 73, 4711-4716.	3.2	16
66	Selenium Accumulation in Sea Ducks Wintering at Lake Ontario. <i>Archives of Environmental Contamination and Toxicology</i> , 2010, 58, 854-862.	2.1	15
67	Utilization of coal fly ash and drinking water sludge to remove anionic As(V), Cr(VI), Mo(VI) and Se(IV) from mine waters. <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 2470-2479.	3.3	15
68	Interference of Lithium in Measuring Magnesium by Complexometry: Discussions of the Mechanism. <i>Journal of Chemistry</i> , 2013, 2013, 1-4.	0.9	14
69	Selenium profiles in the sediments of the Laurentian Trough (northwest North Atlantic). <i>Chemical Geology</i> , 1988, 68, 99-103.	1.4	13
70	H ₂ S Protects against Cardiac Cell Hypertrophy through Regulation of Selenoproteins. <i>Oxidative Medicine and Cellular Longevity</i> , 2019, 2019, 1-12.	1.9	13
71	Returning excrement from livestock, poultry, and humans to farmland as nutrient resources for crop growth: Assessment of rural China. <i>Chemical Engineering Research and Design</i> , 2021, 146, 412-423.	2.7	13
72	Quantitative elemental and structural analysis of dissolved organic carbon fractions from lakes near Sudbury, Ontario. <i>Canadian Journal of Chemistry</i> , 1996, 74, 2460-2470.	0.6	12

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73	The speciation analysis of iodate and iodide in high salt brine by high performance liquid chromatography and inductively coupled plasma mass spectrometry. <i>Journal of Analytical Atomic Spectrometry</i> , 2019, 34, 1374-1379.	1.6	11
74	Profiles of dissolved and acid-leachable selenium in a sediment core from the lower St. Lawrence estuary. <i>Marine Chemistry</i> , 1988, 24, 307-314.	0.9	10
75	Synthesis, identification and chemical features of high-purity trimethylselenium iodide. <i>Journal of Sulfur Chemistry</i> , 2010, 31, 373-385.	1.0	10
76	Adsorption of Cadmium on Degraded Soils Amended with Maize-Stalk-Derived Biochar. <i>International Journal of Environmental Research and Public Health</i> , 2018, 15, 2331.	1.2	10
77	Antimony in the Environment: A Review Focused on Natural Waters. Part 2. Relevant Solution Chemistry. <i>ChemInform</i> , 2003, 34, no.	0.1	8
78	Effects of dietary selenium on the health and survival of captive wintering lesser scaup. <i>Environmental Pollution</i> , 2013, 175, 8-15.	3.7	8
79	Hydrological and biogeochemical controls governing the speciation and accumulation of selenium in a wetland influenced by mine drainage. <i>Environmental Toxicology and Chemistry</i> , 2018, 37, 1824-1838.	2.2	8
80	Preparation of a new high-performance calcium-based desulfurizer using a steam jet mill. <i>Journal of Hazardous Materials</i> , 2020, 389, 121914.	6.5	8
81	Hepatic Concentrations of Inorganic Contaminants and Their Relationships with Nutrient Reserves in Autumn-Migrant Common Loons at Lake Erie. <i>Archives of Environmental Contamination and Toxicology</i> , 2012, 62, 704-713.	2.1	7
82	Solvent Extraction of Tellurium from Chloride Solutions Using Tri-n-butyl Phosphate: Conditions and Thermodynamic Data. <i>Scientific World Journal</i> , The, 2014, 2014, 1-6.	0.8	7
83	Microwave Digestion of Fish Tissues and Determination of Cu, Se and Hg by Atomic Absorption Spectrometry. <i>International Journal of Environmental Analytical Chemistry</i> , 1998, 72, 205-216.	1.8	5
84	Pyrolysis gas chromatography - mass spectrometry of humic substances extracted from Canadian lake sediments. <i>Canadian Journal of Chemistry</i> , 2000, 78, 51-63.	0.6	5
85	Effects of elevated selenium on body condition, oxidative stress, and organ health in greater scaup wintering at Lake Ontario. <i>Wildlife Society Bulletin</i> , 2012, 36, 506-511.	1.6	5
86	Rates and processes affecting As speciation and mobility in lake sediments during aging. <i>Journal of Environmental Sciences</i> , 2018, 66, 338-347.	3.2	5
87	Competitive Adsorption of Uranyl and Toxic Trace Metal Ions at MFe ₂ O ₄ -montmorillonite (M = Mn, Fe). <i>Tj ETQq1 1,0,784314,rgBT /Ove</i>	0.6	5
88	The geochemical behavior of trace metals and nutrients in submerged sediments of the Three Gorges Reservoir and a critical review on risk assessment methods. <i>Environmental Science and Pollution Research</i> , 2021, 28, 33400-33415.	2.7	5
89	A simplified automated chelometric method for the determination of sulfate in interstitial water and seawater. <i>Marine Chemistry</i> , 1980, 9, 237-241.	0.9	4
90	Inorganic Contaminants, Nutrient Reserves and Molt Intensity in Autumn Migrant Red-Necked Grebes (<i>Podiceps grisegena</i>) at Georgian Bay. <i>Archives of Environmental Contamination and Toxicology</i> , 2015, 69, 399-410.	2.1	4

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91	Validation of an updated fractionation and indirect speciation procedure for inorganic arsenic in oxic and suboxic soils and sediments. <i>Environmental Pollution</i> , 2016, 219, 1102-1108.	3.7	4
92	Biosynthesized magnetite-perovskite (XFe ₂ O ₄ -BiFeO ₃) interfaces for toxic trace metal removal from aqueous solution. <i>Ceramics International</i> , 2018, 44, 21210-21220.	2.3	4
93	Seasonal variations of phosphorus species in the Tuohe River, China. Part I. Sediments. <i>Journal of Oceanology and Limnology</i> , 2018, 36, 1950-1961.	0.6	3
94	Effects of a decade of selenium emission reductions on mercury accumulation in aquatic biota in the Sudbury region of Ontario. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2020, 77, 848-856.	0.7	2
95	Seasonal Variations of Phosphorus Species in the Overlying and Pore Waters of the Tuohe River, China. <i>Journal of Chemistry</i> , 2019, 2019, 1-9.	0.9	1
96	Historic records on mineralogical and chemical compositions of a long sediment core from the Three Gorges Reservoir and implications for future studies. <i>Environmental Earth Sciences</i> , 2021, 80, 1.	1.3	1
97	Hydrochemistry of the rimouski river, a tributary to the St. Lawrence estuary. <i>Marine Chemistry</i> , 1983, 12, 231.	0.9	0