John B Vincent

List of Publications by Year
in descending order

113	7,563	71102	51608
papers	citations	41 h-index	86 g-index

134	134	134	4826
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Effects of Bitter Melon and a Chromium Propionate Complex on Symptoms of Insulin Resistance and Type 2 Diabetes in Rat Models. Biological Trace Element Research, 2021, 199, 1013-1026.	3.5	9
2	Examining the Potential Formation of Ternary Chromium-Histidine-DNA Complexes and Implications for Their Carcinogenicity. Biological Trace Element Research, 2021, , 1.	3.5	5
3	Electron paramagnetic spectrum of dimanganic human serum transferrin. Polyhedron, 2021, 203, 115224.	2.2	1
4	Low-molecular-weight chromium-binding substance (LMWCr) may bind and carry Cr(III) from the endosome. Journal of Inorganic Biochemistry, 2021, 223, 111555.	3.5	7
5	Molecular Structure of Binary Chromium(III)â€“DNA Adducts. ChemBioChem, 2020, 21, 628-631.	2.6	7
6	Release of trivalent chromium from serum transferrin is sufficiently rapid to be physiologically relevant. Journal of Inorganic Biochemistry, 2020, 202, 110901.	3.5	19
7	X-ray structure of chromium(III)-containing transferrin: First structure of a physiological Cr(III)-binding protein. Journal of Inorganic Biochemistry, 2020, 210, 111101.	3.5	9
8	Mechanistic Study of Enhanced Protonation by Chromium(III) in Electrospray Ionization: A Superacid Bound to a Peptide. Journal of the American Society for Mass Spectrometry, 2020, 31, 308-318.	2.8	4
9	Significance of conformation changes during the binding and release of chromium(III) from human serum transferrin. Journal of Inorganic Biochemistry, 2020, 206, 111040.	3.5	12
10	Introduction: A history of chromium studies (1955â€“2007). , 2019, , 1-58.		3
11	The absorption and transport of chromium in the body. , 2019, , 129-174.		3
12	Effects of chromium supplementation on body composition, human and animal health, and insulin and glucose metabolism. Current Opinion in Clinical Nutrition and Metabolic Care, 2019, 22, 483-489.	2.5	59
13	Systematic Review of the Effects of Chromium(III) on Chickens. Biological Trace Element Research, 2019, 188, 99-126.	3.5	15
14	Roles of Chromium(III), Vanadium, Iron, and Zinc in Sports Nutrition. , 2019, , 653-664.		1
15	[Cr3O(O2CCH2CH3)6(H2O)3]NO3Â·H2O (Cr3) Toxicity Potential in Bacterial and Mammalian Cells. Biological Trace Element Research, 2018, 183, 342-350.	3.5	4
16	The Identity of â€œChromium Malateâ€• Biological Trace Element Research, 2018, 181, 369-377.	3.5	3
17	The use of chromium(III) complexes to enhance peptide protonation by electrospray ionization mass spectrometry. Journal of Mass Spectrometry, 2018, 53, 1198-1206.	1.6	1
18	Beneficial Effects of Chromium(III) and Vanadium Supplements in Diabetes. , 2018, , 365-374.		7

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19	Over Thirty Years of REU Programs in the Department of Chemistry and Biochemistry at The University of Alabama. ACS Symposium Series, 2018, , 17-31.	0.5	0
20	Chromium. Advances in Nutrition, 2018, 9, 505-506.	6.4	43
21	New Evidence against Chromium as an Essential Trace Element. Journal of Nutrition, 2017, 147, 2212-2219.	2.9	139
22	The effects of the glycation of transferrin on chromium binding and the transport and distribution of chromium in vivo. Journal of Inorganic Biochemistry, 2016, 164, 26-33.	3.5	12
23	Spectroscopic and biological activity studies of the chromium-binding peptide EEEEGDD. Journal of Biological Inorganic Chemistry, 2016, 21, 369-381.	2.6	13
24	The Potential of Cr3 [Triaquaâ€¼₃â€Oxoâ€Hexaâ€¼â€Propionatotrichromium(III) Chloride] to Reduce Birth Defects in the Offspring of Diabetic CDâ€1 Mice. Birth Defects Research Part B: Developmental and Reproductive Toxicology, 2015, 104, 65-70.	1.4	1
25	Aminopyridine complexes of Cr(III) basic carboxylates as potential polymer precursors: Synthesis, characterization, and crystal structure of [Cr3O(propionate)6(X-aminopyridine)3]+ (X = 3 or 4). Polyhedron, 2015, 100, 17-27.	2.2	10
26	Editorial. Biological Trace Element Research, 2015, 163, 1-1.	3.5	1
27	Is the Pharmacological Mode of Action of Chromium(III) as a Second Messenger?. Biological Trace Element Research, 2015, 166, 7-12.	3.5	75
28	Trivalent Chromium has no Effect on Delaying Azoxymethane-Induced Colorectal Cancer in FVB/NJ Mice. Biological Trace Element Research, 2015, 168, 221-226.	3.5	1
29	Binding of trivalent chromium to serum transferrin is sufficiently rapid to be physiologically relevant. Journal of Inorganic Biochemistry, 2015, 143, 48-55.	3.5	39
30	Binding of Trivalent Chromium to Transferrin is Sufficiently Rapid to be Physiologically Relevant. FASEB Journal, 2015, 29, 921.8.	0.5	0
31	Formation of oxo-centered trinuclear chromium carboxylate complexes and hydrolysis of Cr3 as established by paramagnetic 2H NMR spectroscopy. Journal of Inorganic Biochemistry, 2014, 131, 12-20.	3.5	5
32	Is chromium pharmacologically relevant?. Journal of Trace Elements in Medicine and Biology, 2014, 28, 397-405.	3.0	51
33	Urinary Chromium Excretion in Response to an Insulin Challenge Is Not a Biomarker for Chromium Status. Biological Trace Element Research, 2013, 152, 57-65.	3.5	15
34	Long-Term Exposure to [Cr3O(O2CCH2CH3)6(H2O)3]+ in Wistar Rats Fed Normal or High-Fat Diets Does Not Alter Glucose Metabolism. Biological Trace Element Research, 2013, 151, 406-414.	3.5	10
35	Comment on Purification and Characterization of Chromium-Binding Substances from High-Chromium Yeast. Journal of Agricultural and Food Chemistry, 2013, 61, 9280-9281.	5.2	4
36	Chromium: Is It Essential, Pharmacologically Relevant, or Toxic?. Metal Ions in Life Sciences, 2013, 13, 171-198.	2.8	53

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37	Paramagnetic 19F NMR and electrospray ionization mass spectrometric studies of substituted pyridine complexes of chromium(III): Models for potential use of 19F NMR to probe Cr(III)â€“nucleotide interaction. Polyhedron, 2013, 64, 136-141.	2.2	4
38	Comparison of Tissue Metal Concentrations in Zucker Lean, Zucker Obese, and Zucker Diabetic Fatty Rats and the Effects of Chromium Supplementation on Tissue Metal Concentrations. Biological Trace Element Research, 2013, 151, 373-383.	3.5	26
39	Roles of Chromium(III), Vanadium, and Zinc in Sports Nutrition. , 2013, , 447-454.		4
40	The binding and transport of alternative metals by transferrin. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 362-378.	2.4	132
41	The Need for Combined Inorganic, Biochemical, and Nutritional Studies of Chromium(III). Chemistry and Biodiversity, 2012, 9, 1923-1941.	2.1	26
42	Beneficial Effects of Chromium(III) and Vanadium Supplements in Diabetes. , 2012, , 381-391.		4
43	Monocarboxylate Transporters are not Responsible for Cr3+ Transport from Endosomes. Biological Trace Element Research, 2012, 148, 409-414.	3.5	13
44	Chromium is not an essential trace element for mammals: effects of a â€œlow-chromiumâ€•diet. Journal of Biological Inorganic Chemistry, 2011, 16, 381-390.	2.6	185
45	Potential of Chromium(III) Picolinate for Reproductive or Developmental Toxicity Following Exposure of Male CD-1 Mice Prior to Mating. Biological Trace Element Research, 2011, 143, 1666-1672.	3.5	19
46	Characterization of the Organic Component of Low-Molecular-Weight Chromium-Binding Substance and Its Binding of Chromium. Journal of Nutrition, 2011, 141, 1225-1232.	2.9	43
47	Urinary chromium loss associated with diabetes is offset by increases in absorption. Journal of Inorganic Biochemistry, 2010, 104, 790-797.	3.5	27
48	Comment on: Padmavathi et al. (2010) Chronic Maternal Dietary Chromium Restriction Modulates Visceral Adiposity: Probable Underlying Mechanisms. Diabetes;59:98â€“104. Diabetes, 2010, 59, e2-e2.	0.6	10
49	Chromium: celebrating 50 years as an essential element?. Dalton Transactions, 2010, 39, 3787.	3.3	161
50	Sequence of the peptide component of lowâ€•molecularâ€•weight chromiumâ€•binding substance. FASEB Journal, 2010, 24, 537.5.	0.5	0
51	Mass Spectrometric and Spectroscopic Studies of the Nutritional Supplement Chromium(III) Nicotinate. Biological Trace Element Research, 2009, 130, 114-130.	3.5	11
52	Effects of Pre- and Postnatal Exposure to Chromium Picolinate or Picolinic Acid on Neurological Development in CD-1 Mice. Biological Trace Element Research, 2008, 124, 70-82.	3.5	23
53	The effects of chromium(III) coordination on the dissociation of acidic peptides. Journal of Mass Spectrometry, 2008, 43, 773-781.	1.6	13
54	Introduction: A history of chromium studies (1955â€“1995). , 2007, , 1-40.		5

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55	Potential and purported roles for chromium in insulin signaling: The search for the holy grail. , 2007, , 139-160.		16
56	Low-molecular-weight chromium-binding substance from chicken liver and American alligator liver. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2006, 144, 423-431.	1.6	13
57	Nutritional supplement chromium picolinate generates chromosomal aberrations and impedes progeny development in Drosophila melanogaster. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 2006, 610, 101-113.	1.7	54
58	High-Dose Chromium(III) Supplementation Has No Effects on Body Mass and Composition While Altering Plasma Hormone and Triglycerides Concentrations. Biological Trace Element Research, 2006, 113, 53-66.	3.5	29
59	Oral administration of the biomimetic [Cr3O(O2CCH2CH3)6(H2O)3]+ increases insulin sensitivity and improves blood plasma variables in healthy and type 2 diabetic rats. Journal of Biological Inorganic Chemistry, 2005, 10, 119-130.	2.6	71
60	The time-dependent transport of chromium in adult rats from the bloodstream to the urine. Journal of Biological Inorganic Chemistry, 2005, 10, 383-393.	2.6	62
61	Cytochrome c: A Biochemistry Laboratory Course. Journal of Chemical Education, 2005, 82, 1211.	2.3	18
62	Recent advances in the nutritional biochemistry of trivalent chromium. Proceedings of the Nutrition Society, 2004, 63, 41-47.	1.0	167
63	Absorption of the Biomimetic Chromium Cation Triaqua-Îœ₃-oxo-Îœ-hexapropionatotrichromium(III) in Rats. Biological Trace Element Research, 2004, 98, 159-170.	3.5	55
64	Recent Developments in the Biochemistry of Chromium(III). Biological Trace Element Research, 2004, 99, 001-016.	3.5	70
65	A comparison of the insulin-sensitive transport of chromium in healthy and model diabetic rats. Journal of Inorganic Biochemistry, 2004, 98, 522-533.	3.5	58
66	Chromium-containing biomimetic cation triaqua-Î¼3-oxo-Î¼-hexapropionatotrichromium(III) inhibits colorectal tumor formation in rats. Journal of Inorganic Biochemistry, 2004, 98, 1303-1306.	3.5	13
67	Recent advances in the biochemistry of chromium(III). Journal of Trace Elements in Experimental Medicine, 2003, 16, 227-236.	0.8	30
68	1H NMR studies of Cr(III)â€“imidazole complexes: can 1H NMR be used as a probe of Crâ€“guanine DNA adducts?. Inorganica Chimica Acta, 2003, 344, 265-269.	2.4	8
69	The nutritional supplement chromium picolinate generates oxidative DNA damage and peroxidized lipids in vivo. Polyhedron, 2003, 22, 455-463.	2.2	65
70	Tissue and subcellular distribution of chromium picolinate with time after entering the bloodstream. Journal of Inorganic Biochemistry, 2003, 94, 86-93.	3.5	57
71	Characterization of Chromodulin by X-ray Absorption and Electron Paramagnetic Resonance Spectroscopies and Magnetic Susceptibility Measurements. Journal of the American Chemical Society, 2003, 125, 774-780.	13.7	80
72	The Potential Value and Toxicity of Chromium Picolinate as a Nutritional Supplement, Weight Loss Agent and Muscle Development Agent. Sports Medicine, 2003, 33, 213-230.	6.5	124

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73	Nutritional supplement chromium picolinate causes sterility and lethal mutations in Drosophila melanogaster. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3766-3771.	7.1	100
74	In Vivo Distribution of Chromium from Chromium Picolinate in Rats and Implications for the Safety of the Dietary Supplement. Chemical Research in Toxicology, 2002, 15, 93-100.	3.3	61
75	The fate of the biomimetic cation triaqua-Î¼-oxohexapropionatotrichromium(III) in rats. Journal of Inorganic Biochemistry, 2002, 89, 272-278.	3.5	20
76	Spectroscopic studies of the dodecanuclear chromium complex Cr12O9(OH)3(pivalate)15: confirmation of the presence of twelve Cr(III) centers and the crystal structure of Cr12O9(OH)3(pivalate)15Â·2PrOHÂ·9H2O. Polyhedron, 2002, 21, 155-165.	2.2	9
77	The biomimetic [Cr3O(O2CCH2CH3)6(H2O)3]+ decreases plasma insulin, cholesterol, and triglycerides in healthy and type II diabetic rats but not type I diabetic rats. Journal of Biological Inorganic Chemistry, 2002, 7, 852-862.	2.6	58
78	The stability of the biomimetic cation triaqua-Î¼-oxohexapropionatotrichromium(III) in vivo in rats. Polyhedron, 2001, 20, 2241-2252.	2.2	25
79	The bioinorganic chemistry of chromium(III). Polyhedron, 2001, 20, 1-26.	2.2	217
80	Enhancement of post-receptor insulin signaling by trivalent chromium in hepatoma cells is associated with differential inhibition of specific protein-tyrosine phosphatases. Journal of Trace Elements in Experimental Medicine, 2001, 14, 393-404.	0.8	28
81	The trail of chromium(III) in vivo from the blood to the urine: the roles of transferrin and chromodulin. Journal of Biological Inorganic Chemistry, 2001, 6, 608-617.	2.6	86
82	The Biochemistry of Chromium. Journal of Nutrition, 2000, 130, 715-718.	2.9	339
83	Elucidating a Biological Role for Chromium at a Molecular Level. Accounts of Chemical Research, 2000, 33, 503-510.	15.6	266
84	Quest for the Molecular Mechanism of Chromium Action and Its Relationship to Diabetes. Nutrition Reviews, 2000, 58, 67-72.	5.8	186
85	Low-molecular-weight chromium-binding substance and biomimetic [Cr3O(O2CCH2CH3)6(H2O)3]+ do not cleave DNA under physiologically-relevant conditions. Polyhedron, 1999, 18, 2617-2624.	2.2	54
86	A re-investigation the electronic spectra of chromium(III) picolinate complexes and high yield synthesis and characterization of Cr2(Î¼-OH)2(pic)4Â·5H2O (Hpic=picolinic acid). Polyhedron, 1999, 18, 2891-2897.	2.2	54
87	Simulating the Shroud of Turin: A Laboratory Experiment. The Chemical Educator, 1999, 4, 102-104.	0.0	1
88	Propagation of Errors in Freshman Chemistry Textbooks: A Case Study Using the Magnetic Moment of a Spinning Electron. Journal of Chemical Education, 1999, 76, 1460.	2.3	1
89	The Nutritional Supplement Chromium(III) Tris(picolinate) Cleaves DNA. Chemical Research in Toxicology, 1999, 12, 483-487.	3.3	165
90	Mechanisms of Chromium Action: Low-Molecular-Weight Chromium-Binding Substance. Journal of the American College of Nutrition, 1999, 18, 6-12.	1.8	128

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91	Piltdown Man: Combining the Instruction of Scientific Ethics and Qualitative Analysis. Journal of Chemical Education, 1999, 76, 1501.	2.3	1
92	DNA nicking by a trinuclear chromium complex. Inorganica Chimica Acta, 1998, 268, 211-219.	2.4	19
93	Nuclear magnetic resonance studies of chromium(III) pyridinecarboxylate complexes. Journal of Inorganic Biochemistry, 1998, 72, 79-88.	3.5	46
94	Concealed Asymmetry in an Exchange-Coupled Trichromium(III) Cluster:Â Structure and Magnetic Spectrum of [Cr3O(OOCPh)6(py)3](py)0.5ClO4. Inorganic Chemistry, 1998, 37, 5675-5677.	4.0	24
95	Chromium Oligopeptide Activates Insulin Receptor Tyrosine Kinase Activity. Biochemistry, 1997, 36, 4382-4385.	2.5	268
96	Synthetic Multinuclear Chromium Assembly Activates Insulin Receptor Kinase Activity:Â Functional Model for Low-Molecular-Weight Chromium-Binding Substance. Inorganic Chemistry, 1997, 36, 5316-5320.	4.0	105
97	Synthesis and Characterization of Novel Oxo-Bridged Dinuclear and Hydroxo-Bridged Trinuclear Chromium(III) Assemblies. Inorganic Chemistry, 1997, 36, 4875-4882.	4.0	38
98	Isolation and Characterization of a Biologically Active Chromium Oligopeptide from Bovine Liver. Archives of Biochemistry and Biophysics, 1997, 339, 335-343.	3.0	109
99	Is glucose tolerance factor an artifact produced by acid hydrolysis of low-molecular-weight chromium-binding substance?. Polyhedron, 1997, 16, 4171-4177.	2.2	48
100	Copper binding and release by immobilized transferrin: A new approach to heavy metal removal and recovery. , 1997, 53, 01-09.		7
101	A Biologically Active Form of Chromium May Activate a Membrane Phosphotyrosine Phosphatase (PTP)â€. Biochemistry, 1996, 35, 12963-12969.	2.5	120
102	Immobilization of conalbumin onto polystyrene/divinylbenzene co-polymers: Towards finding the best support for MAMC. , 1996, 9, 558-563.		3
103	Silicaâ€conalbumin conjugate as an inexpensive alternative for metalloprotein affinity metal chromatography. Journal of Environmental Science and Health Part A: Environmental Science and Engineering, 1996, 31, 2337-2347.	0.1	0
104	Metal ion concentration, time, and pH dependence of metal ion binding to a transferrin metalloprotein affinity chromatography (MAMC) matrix. Journal of Chemical Technology and Biotechnology, 1995, 64, 96-100.	3.2	6
105	Use of thermolysin metalloprotein affinity metal chromatography in the decontamination of actinide-bearing solutions. Journal of Chemical Technology and Biotechnology, 1995, 64, 149-152.	3.2	2
106	An Unsymmetric Trinuclear Chromium(III) Oxo Carboxylate Assembly: Structure and Characterization of Cr3O(O2CPh)4(8-hqn)3.cntdot.1.25CH2Cl2. Inorganic Chemistry, 1995, 34, 3813-3820.	4.0	40
107	Transferrin metalloprotein affinity metal chromatography. Journal of Chemical Technology and Biotechnology, 1995, 62, 373-379.	3.2	12
108	Synthesis and characterization of symmetric and unsymmetric oxo-bridged trinuclear chromium benzoate complexes: Crystal and molecular structure of [Cr3O(O2CPh)6(py)3]ClO4. Inorganica Chimica Acta, 1994, 217, 171-179.	2.4	55

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109	Heterotrinuclear Carboxylates of Chromium(III) and Iron(III): Mixtures or Pure Compounds?. Inorganic Chemistry, 1994, 33, 5604-5606.	4.0	21
110	Synthetic Models for Low-Molecular-Weight Chromium-Binding Substance: Synthesis and Characterization of Oxo-Bridged Tetranuclear Chromium(III) Assemblies. Inorganic Chemistry, 1994, 33, 5522-5527.	4.0	51
111	Relationship between Glucose Tolerance Factor and Low-Molecular-Weight Chromium-Binding Substance. Journal of Nutrition, 1994, 124, 117-118.	2.9	41
112	High-spin molecules: [Mn12O12(O2CR)16(H2O)4]. Journal of the American Chemical Society, 1993, 115, 1804-1816.	13.7	2,156
113	Modeling the photosynthetic water oxidation center. Preparation and properties of tetranuclear manganese complexes containing [Mn4O2]6+,7+,8+ cores, and the crystal structures of Mn4O2(O2CMe)6(bipy)2 and [Mn4O2(O2CMe)7(bipy)2](ClO4). Journal of the American Chemical Society, 1989, 111, 2086-2097.	13.7	247