Robert J Baker

List of Publications by Year
in descending order

88 papers	2,896 citations	147801 31 h-index	182427 51 g-index
92 all docs	92 docs citations	92 times ranked	2476 citing authors

#	Article	IF	Citations
1	The reactivity of diazabutadienes toward low oxidation state Group 13 iodides and the synthesis of a new gallium(i) carbene analogue. Dalton Transactions RSC, 2002, , 3844.	2.3	191
2	The coordination chemistry and reactivity of group 13 metal(I) heterocycles. Coordination Chemistry Reviews, 2005, 249, 1857-1869.	18.8	178
3	Fluorineâ€“Fluorine Interactions in the Solid State: An Experimental and Theoretical Study. Journal of Physical Chemistry A, 2012, 116, 1435-1444.	2.5	132
4	New Reactivity of the Uranyl(VI) Ion. Chemistry - A European Journal, 2012, 18, 16258-16271.	3.3	100
5	The reactivity of gallium(i) and indium(i) halides towards bipyridines, terpyridines, imino-substituted pyridines and bis(imino)acenaphthenes. New Journal of Chemistry, 2004, 28, 207.	2.8	92
6	â€œGaIâ€• A versatile reagent for the synthetic chemist. Dalton Transactions, 2005, , 1341-1348.	3.3	84
7	Uranium minerals and their relevance to long term storage of nuclear fuels. Coordination Chemistry Reviews, 2014, 266-267, 123-136.	18.8	81
8	Synthesis and Structural Characterization of Thermally Stable Group 13 Hydride Complexes Derived from a Gallium(I) Carbene Analogue. Angewandte Chemie - International Edition, 2003, 42, 2660-2663.	13.8	80
9	Structural and spectroscopic studies of carbene and N-donor ligand complexes of Group 13 hydrides and halides. Journal of Organometallic Chemistry, 2002, 656, 203-210.	1.8	78
10	Analogies between the Reactivities of an Anionic Gallium(I) Heterocycle and N-Heterocyclic Carbenes Toward Metallocenes. Journal of the American Chemical Society, 2003, 125, 10534-10535.	13.7	77
11	Synthesis and characterisation of the first carbene and diazabutadieneâ€“indium(ii) complexesElectronic supplementary information (ESI) available: synthetic details. See http://www.rsc.org/suppdata/cc/b2/b202532a/. Chemical Communications, 2002, , 1196-1197.	4.1	67
12	Complexes of a gallium heterocycle with transition metal dicyclopentadienyl and cyclopentadienylcarbonyl fragments, and with a dialkylmanganese compound. Dalton Transactions, 2006, , 3313.	3.3	66
13	An EPR and ENDOR Investigation of a Series of Diazabutadiene-Group 13 Complexes. Chemistry - A European Journal, 2005, 11, 2972-2982.	3.3	65
14	Emission spectroscopy of uranium(iv) compounds: a combined synthetic, spectroscopic and computational study. RSC Advances, 2013, 3, 4350.	3.6	57
15	Evidence for the first oxidative insertion of a transition metal into a digallane(4): synthesis, structural characterisation and EPR studies of [Cp2ZrIII{Ga[N(Ar)C(H)]2}2][Li(THF)4], Ar = C6H3Pri2-2,6. Chemical Communications, 2005, , 1339.	4.1	54
16	The Reactivity of Primary and Secondary Amines, Secondary Phosphanes and N-Heterocyclic Carbenes towards Group-13 Metal(I) Halides. European Journal of Inorganic Chemistry, 2003, 2003, 2446-2451.	2.0	53
17	Oxidation reactions of an anionic gallium(i) N-heterocyclic carbene analogue with group 16 compounds. Dalton Transactions, 2005, , 2106.	3.3	53
18	Investigations into the preparation of groups 13â€“15 N-heterocyclic carbene analogues. Inorganica Chimica Acta, 2008, 361, 427-435.	2.4	53

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19	Further Evidence on the Importance of Fluorousâ€“Fluorous Interactions in Supramolecular Chemistry: A Combined Structural and Computational Study. Crystal Growth and Design, 2015, 15, 2835-2841.	3.0	52
20	Structure-activity relationships of new Organotin(IV) anticancer agents and their cytotoxicity profile on HL-60, MCF-7 and HeLa human cancer cell lines. European Journal of Medicinal Chemistry, 2019, 181, 111544.	5.5	52
21	Bidentate N-heterocyclic carbene complexes of Group 13 trihydrides and trihalides. Dalton Transactions RSC, 2002, , 1992-1996.	2.3	50
22	Synthesis, structural and theoretical studies of an ironâ€“gallium(i) heterocycle complex: Analogies with N-heterocyclic carbene chemistry. Dalton Transactions, 2003, , 3673-3674.	3.3	50
23	The reactivity of gallium-(i), -(ii) and -(iii) heterocycles towards Group 15 substrates: attempts to prepare galliumâ€“terminal pnictinidene complexes. Dalton Transactions, 2006, , 64-72.	3.3	48
24	New Mechanism for the Ring-Opening Polymerization of Lactones? Uranyl Aryloxide-Induced Intermolecular Catalysis. Inorganic Chemistry, 2013, 52, 9077-9086.	4.0	45
25	Oxidative Coupling of an Anionic Gallium(I) Carbene Analogue:Â Synthesis and Structural Characterization of an Unprecedented Ï€-Cyclopentadienyl-Bridged Digallane Complex. Organometallics, 2004, 23, 4811-4813.	2.3	41
26	Synthesis and characterisation of sterically bulky lithium amidinate and bis-amidinate complexes. Journal of Organometallic Chemistry, 2006, 691, 65-71.	1.8	38
27	Synthesis, characterization, antioxidant and selective xanthine oxidase inhibitory studies of transition metal complexes of novel amino acid bearing Schiff base ligand. Inorganica Chimica Acta, 2015, 428, 117-126.	2.4	38
28	Transition metal complexes of triphosphorus macrocycles: A new class of homogeneous olefin polymerisation catalysts. Dalton Transactions RSC, 2002, , 2960-2965.	2.3	36
29	Kinetic Control over the Thermal Stability of the Inï£¿H Bond: Synthesis and Characterization of Amido Indium Hydride Complexes. Angewandte Chemie - International Edition, 2004, 43, 3852-3855.	13.8	35
30	The coordination and organometallic chemistry of UI3 and U{N(SiMe3)2}3: Synthetic reagents par excellence. Coordination Chemistry Reviews, 2012, 256, 2843-2871.	18.8	35
31	New reactivity of the uranyl ion: ring opening polymerisation of epoxides. Chemical Communications, 2012, 48, 985-987.	4.1	34
32	Manganese and rhenium triphosphorus macrocycle complexes and reactions with alkenes. Dalton Transactions RSC, 2002, , 3985-3992.	2.3	31
33	Physical Characterization and Reactivity of the Uranyl Peroxide [UO₂(Î·²-O₂)(H₂O)₂]Â·2H₂O: Implications for Storage of Spent Nuclear Fuels. Inorganic Chemistry, 2012, 51, 8509-8515.	4.0	31
34	Dehydration of the Uranyl Peroxide Studtite, [UO₂(Î·²-O₂)(H₂O)₂]Â·2H₂O, Affords a Drastic Change in the Electronic Structure: A Combined X-ray Spectroscopic and Theoretical Analysis. Inorganic Chemistry, 2018, 57, 1735-1743.	4.0	31
35	9-Triptycenyl complexes of group 13 and 15 halides and hydrides. Journal of Organometallic Chemistry, 2004, 689, 781-790.	1.8	30
36	An EXAFS and HR-XANES study of the uranyl peroxides [UO2(Î·2-O2)(H2O)2]Â·nH2O (n = 0, 2) and uranyl (oxy)hydroxide [(UO2)4O(OH)6]Â·6H2O. Dalton Transactions, 2014, 43, 4400-4407.	3.3	30

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37	Adduct formation of [(Î·7-C7H7)Zr(Î·5-C5H5)] with phosphines and N-heterocyclic carbenes: An experimental and theoretical study. Inorganica Chimica Acta, 2006, 359, 4797-4801.	2.4	29
38	Thiocyanate Complexes of Uranium in Multiple Oxidation States: A Combined Structural, Magnetic, Spectroscopic, Spectroelectrochemical, and Theoretical Study. Inorganic Chemistry, 2014, 53, 8624-8637.	4.0	28
39	Title is missing!. Transition Metal Chemistry, 2003, 28, 296-299.	1.4	27
40	Comments on reactions of oxide derivatives of uranium with hexachloropropene to give UCl₄. New Journal of Chemistry, 2015, 39, 7559-7562.	2.8	26
41	Early Transition Metal Complexes of Triphosphorus Macrocycles. European Journal of Inorganic Chemistry, 2002, 2002, 1975-1984.	2.0	24
42	Urease and Î±-chymotrypsin inhibitory activities of transition metal complexes of new Schiff base ligand: Kinetic and thermodynamic studies of the synthesized complexes using TGâ€“DTA pyrolysis. Thermochimica Acta, 2013, 562, 22-28.	2.7	24
43	Ring-Opening Polymerization of Epoxides Catalyzed by Uranyl Complexes: An Experimental and Theoretical Study of the Reaction Mechanism. Inorganic Chemistry, 2012, 51, 9132-9140.	4.0	23
44	Perfluorinated phosphine oxide and sulfides as extractants for heavy metals and radionuclides. Journal of Environmental Management, 2011, 92, 2781-2785.	7.8	22
45	Synthesis, characterization, in vitro antimicrobial, and U2OS tumoricidal activities of different coumarin derivatives. BMC Chemistry, 2013, 7, 68.	3.8	22
46	Crystallographic report: [1,3-Di(mestityl)imidazol-2-ylidene]gallium iodide dihydride. Applied Organometallic Chemistry, 2003, 17, 807-808.	3.5	20
47	Synthesis, characterization and distinct butyrylcholinesterase activities of transition metal complexes of 2-[(E)-(quinolin-3-ylimino)methyl]phenol. Inorganica Chimica Acta, 2012, 390, 210-216.	2.4	20
48	A computational investigation of orbital overlap versus energy degeneracy covalency in [UE₂]²⁺ (E = O, S, Se, Te) complexes. Dalton Transactions, 2020, 49, 1077-1088.	3.3	19
49	Thermomorphic metal scavengers: A synthetic and multinuclear NMR study of highly fluorinated ketones and their application in heavy metal removal. Journal of Fluorine Chemistry, 2010, 131, 621-626.	1.7	18
50	Synthesis and distinct urease enzyme inhibitory activities of metal complexes of Schiff-base ligands: Kinetic and thermodynamic parameters evaluation from TG-DTA analysis. Thermochimica Acta, 2013, 555, 72-80.	2.7	18
51	An investigation of the interactions of Eu³⁺and Am³⁺with uranyl minerals: implications for the storage of spent nuclear fuel. Dalton Transactions, 2016, 45, 6383-6393.	3.3	18
52	Competitive Reaction of Neptunium(V) and Uranium(VI) in Potassiumâ€“Sodium Carbonate-Rich Aqueous Media: Speciation Study with a Focus on High-Resolution X-ray Spectroscopy. Inorganic Chemistry, 2020, 59, 8-22.	4.0	17
53	Reactions of a Gallium(II)â"Diazabutadiene Dimer, [{{[(H)C(But)N]2}Gal}2], with [ME(SiMe3)2] (M = Li or) Tj ETQq1 1 0.784314 rgB Complexes. Inorganic Chemistry, 2005, 44, 2098-2105.	4.0	16
54	Synthesis, structure and photophysical properties of [UO₂X₂(Oî€PPh₃)₂] (X = Cl, Br, I). Dalton Transactions, 2014, 43, 1125-1131.	3.3	16

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55	Structural Variability of 4f and 5f Thiocyanate Complexes and Dissociation of Uranium(III)â€“Thiocyanate Bonds with Increased Ionicity. Inorganic Chemistry, 2017, 56, 14426-14437.	4.0	16
56	Fingerprinting the oxidation state of U(iv) by emission spectroscopy. Dalton Transactions, 2013, 42, 14677.	3.3	14
57	A Study of the Reactivity of Secondary Phosphanes with Radical Sources: A New Dehydrocoupling Reaction. Helvetica Chimica Acta, 2010, 93, 1081-1085.	1.6	13
58	The reaction of â€˜Gaâ€™ with a 1,3-diyne: synthesis, characterisation and reactivity of a novel Câ€“C coupled eneâ€“diyneâ€“bis(gem-organodigallium(iii)) complexElectronic supplementary information (ESI) available: full synthetic details for 2â€“4. Molecular structure of 4. See http://www.rsc.org/suppdata/cc/b2/b210868m/. Chemical Communications, 2003, , 390-391.	4.1	12
59	Characterisation of isothiocyanic acid, HNCS, in the solid state: trapped by hydrogen bonding. Chemical Communications, 2016, 52, 13296-13298.	4.1	12
60	A rationally designed perfluorinated host for the extraction of PFOA from water utilising non-covalent interactions. New Journal of Chemistry, 2018, 42, 7956-7968.	2.8	12
61	Non-covalent interactions of uranyl complexes: a theoretical study. Physical Chemistry Chemical Physics, 2018, 20, 15380-15388.	2.8	12
62	Perfluorinated oxygen- and sulfur-containing compounds as extractants for gold(III). Gold Bulletin, 2011, 44, 79-83.	2.4	11
63	Low valent carbonylvanadium complexes of the triphosphorus macrocycle 12[ane]P3Et3. Dalton Transactions, 2003, , 944-948.	3.3	10
64	TinÂ·Â·Â·Oxygen Tetrel Bonding: A Combined Structural, Spectroscopic, and Computational Study. Crystal Growth and Design, 2017, 17, 4021-4027.	3.0	10
65	Pseudohalide Tectons within the Coordination Sphere of the Uranyl Ion: Experimental and Theoretical Study of Câ€“HÂ·Â·Â·O, Câ€“HÂ·Â·Â·S, and Chalcogenide Noncovalent Interactions. Inorganic Chemistry, 2018, 57, 3699-3712.	4.0	10
66	Title is missing!. Angewandte Chemie, 2003, 115, 2764-2767.	2.0	9
67	New dicoumarol sodium compound: crystal structure, theoretical study and tumoricidal activity against osteoblast cancer cells. Chemistry Central Journal, 2013, 7, 110.	2.6	9
68	A Structural and Spectroscopic Study of the First Uranyl Selenocyanate, [Et4N]3[UO2(NCSe)5]. Inorganics, 2016, 4, 4.	2.7	9
69	The Coupling of Pyridine and Dichloromethane Mediated by UO₂Cl₂. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2010, 636, 443-445.	1.2	7
70	Perfluorinated phenols as extraction agents for Cs⁺ and Sr²⁺. Radiochimica Acta, 2010, 98, 507-511.	1.2	7
71	The synthesis and structural characterisation of the first gallium(II) dialkylphosphide complex. Inorganic Chemistry Communication, 2004, 7, 1289-1291.	3.9	6
72	Fluorous catalyst recycling utilising highly fluorinated zinc compounds: Ring opening polymerisation of É›-caprolactone. Journal of Fluorine Chemistry, 2012, 139, 58-62.	1.7	6

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73	Synergic Extraction of Europium(III) with 1 M Mixture of Di-n-butylsulfoxide and Bis(2,4,4-Trimethylpentyl)phosphinic Acid in Chloroform and its Subsequent Determination by Using Arsenazo(III) as Chromogenic Reagent. Asian Journal of Chemistry, 2015, 27, 3609-3615.	0.3	6
74	The Molecular Structure of Ditriptycenyl Ditelluride. Main Group Metal Chemistry, 2004, 27, .	1.6	5
75	Synthesis and Structure of the Cyclic Borenium Cation 1,1,3,3-tetramethyl-1,3Î»4,2-diazaborolidin-1-ium chloride. Journal of Chemical Crystallography, 2018, 48, 209-212.	1.1	5
76	The synthesis of phosphorus heterocycles from tetra-tert-butyltetraphosphacubane. Acta Crystallographica Section C: Crystal Structure Communications, 2003, 59, m339-m341.	0.4	4
77	Americium incorporation into studtite: a theoretical and experimental study. Dalton Transactions, 2019, 48, 13057-13063.	3.3	4
78	Perfluorinated phosphine and hybrid Pâ€“O ligands for Pd catalysed Câ€“C bond forming reactions in solution and on Teflon supports. RSC Advances, 2019, 9, 28936-28945.	3.6	4
79	Nâ€Arylâ€9,10â€phenanthreneimines as Scaffolds for Exploring Noncovalent Interactions: A Structural and Computational Study. European Journal of Organic Chemistry, 2017, 2017, 5597-5609.	2.4	3
80	Clâ‹¯Cl and Clâ‹¯H Interactions in the Chlorinated Hydocarbon 1,1,1,2,2,3,3-Heptachloropropane: A Structural Study. Journal of Chemical Crystallography, 2017, 47, 182-186.	1.1	3
81	Redox Processes in Solidâ€State Uranyl (Oxy)hydroxide Minerals. ChemElectroChem, 2018, 5, 958-963.	3.4	3
82	The Solid State Structure of [TMEDAH2][B5O6(OH)4]2. Journal of Chemical Crystallography, 2020, 50, 171-175.	1.1	3
83	A multi-technique study of altered granitic rock from the Krunkelbach Valley uranium deposit, Southern Germany. RSC Advances, 2020, 10, 25529-25539.	3.6	3
84	Laser-driven rapid functionalization of carbon surfaces and its application to the fabrication of fluorinated adsorbers. RSC Advances, 2016, 6, 82924-82932.	3.6	2
85	Oxidation of uranium(iv) thiocyanate complexes: cationâ€“cation interactions in mixed-valent uranium coordination chains. Dalton Transactions, 2019, 48, 6704-6708.	3.3	1
86	(2,6-Diisopropylphenyl)isopropylideneammonium iodide. Acta Crystallographica Section E: Structure Reports Online, 2003, 59, o538-o539.	0.2	0
87	Modeling of Nuclear Waste Forms: State-of-the-Art and Perspectives. MRS Advances, 2020, 5, 213-222.	0.9	0
88	The Chemistry of the Actinides. , 2022, , 37-77.		0