

# Robert J Baker

## List of Publications by Year in descending order

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88  
papers

2,896  
citations

147801

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51  
g-index

92  
all docs

92  
docs citations

92  
times ranked

2476  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Chemistry of the Actinides. , 2022, , 37-77.		0
2	The Solid State Structure of [TMEDAH <sub>2</sub> ][B <sub>5</sub> O <sub>6</sub> (OH) <sub>4</sub> ] <sub>2</sub> . Journal of Chemical Crystallography, 2020, 50, 171-175.	1.1	3
3	A computational investigation of orbital overlap <i>versus</i> energy degeneracy covalency in [UE <sub>2</sub> ] <sup>2+</sup> (E = O, S, Se, Te) complexes. Dalton Transactions, 2020, 49, 1077-1088.	3.3	19
4	Competitive Reaction of Neptunium(V) and Uranium(VI) in Potassium–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
5	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
6	Modeling of Nuclear Waste Forms: State-of-the-Art and Perspectives. MRS Advances, 2020, 5, 213-222.	0.9	0
7	Americium incorporation into studtite: a theoretical and experimental study. Dalton Transactions, 2019, 48, 13057-13063.	3.3	4
8	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
9	Perfluorinated phosphine and hybrid P=O ligands for Pd catalysed C–C bond forming reactions in solution and on Teflon supports. RSC Advances, 2019, 9, 28936-28945.	3.6	4
10	Oxidation of uranium(IV) thiocyanate complexes: cation–cation interactions in mixed-valent uranium coordination chains. Dalton Transactions, 2019, 48, 6704-6708.	3.3	1
11	Dehydration of the Uranyl Peroxide Studtite, [UO <sub>2</sub> (H <sub>2</sub> O) <sub>2</sub> ] <sub>2</sub> ·2H <sub>2</sub> O, 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
12	Pseudohalide Tectons within the Coordination Sphere of the Uranyl Ion: Experimental and Theoretical Study of Ca–H <sub>2</sub> O, Ca–H <sub>2</sub> S, and Chalcogenide Noncovalent Interactions. Inorganic Chemistry, 2018, 57, 3699-3712.	4.0	10
13	Redox Processes in Solid-State Uranyl (Oxy)hydroxide Minerals. ChemElectroChem, 2018, 5, 958-963.	3.4	3
14	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
15	Non-covalent interactions of uranyl complexes: a theoretical study. Physical Chemistry Chemical Physics, 2018, 20, 15380-15388.	2.8	12
16	Synthesis and Structure of the Cyclic Boremium Cation 1,1,3,3-tetramethyl-1,3,4,2-diazaborolidin-1-ium chloride. Journal of Chemical Crystallography, 2018, 48, 209-212.	1.1	5
17	Tin–Oxygen Tetrel Bonding: A Combined Structural, Spectroscopic, and Computational Study. Crystal Growth and Design, 2017, 17, 4021-4027.	3.0	10
18	<i>N</i> -Aryl-1,10-phenanthreneimines as Scaffolds for Exploring Noncovalent Interactions: A Structural and Computational Study. European Journal of Organic Chemistry, 2017, 2017, 5597-5609.	2.4	3

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19	Structural Variability of 4f and 5f Thiocyanate Complexes and Dissociation of Uranium(III)â€“Thiocyanate Bonds with Increased Ionicity. <i>Inorganic Chemistry</i> , 2017, 56, 14426-14437.	4.0	16
20	Clâˆ“Cl and Clâˆ“H Interactions in the Chlorinated Hydrocarbon 1,1,1,2,2,3,3-Heptachloropropane: A Structural Study. <i>Journal of Chemical Crystallography</i> , 2017, 47, 182-186.	1.1	3
21	A Structural and Spectroscopic Study of the First Uranyl Selenocyanate, [Et <sub>4</sub> N] <sub>3</sub> [UO <sub>2</sub> (NCSe) <sub>5</sub> ]. <i>Inorganics</i> , 2016, 4, 4.	2.7	9
22	Laser-driven rapid functionalization of carbon surfaces and its application to the fabrication of fluorinated adsorbers. <i>RSC Advances</i> , 2016, 6, 82924-82932.	3.6	2
23	Characterisation of isothiocyanic acid, HNCS, in the solid state: trapped by hydrogen bonding. <i>Chemical Communications</i> , 2016, 52, 13296-13298.	4.1	12
24	An investigation of the interactions of Eu <sup>3+</sup> and Am <sup>3+</sup> with uranyl minerals: implications for the storage of spent nuclear fuel. <i>Dalton Transactions</i> , 2016, 45, 6383-6393.	3.3	18
25	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. <i>Asian Journal of Chemistry</i> , 2015, 27, 3609-3615.	0.3	6
26	Synthesis, characterization, antioxidant and selective xanthine oxidase inhibitory studies of transition metal complexes of novel amino acid bearing Schiff base ligand. <i>Inorganica Chimica Acta</i> , 2015, 428, 117-126.	2.4	38
27	Further Evidence on the Importance of Fluorousâ€“Fluorous Interactions in Supramolecular Chemistry: A Combined Structural and Computational Study. <i>Crystal Growth and Design</i> , 2015, 15, 2835-2841.	3.0	52
28	Comments on reactions of oxide derivatives of uranium with hexachloropropene to give UCl <sub>4</sub> . <i>New Journal of Chemistry</i> , 2015, 39, 7559-7562.	2.8	26
29	Uranium minerals and their relevance to long term storage of nuclear fuels. <i>Coordination Chemistry Reviews</i> , 2014, 266-267, 123-136.	18.8	81
30	An EXAFS and HR-XANES study of the uranyl peroxides [UO <sub>2</sub> ( $\eta$ -2-O <sub>2</sub> )(H <sub>2</sub> O) <sub>2</sub> ] $\cdot$ nH <sub>2</sub> O (n = 0, 2) and uranyl (oxy)hydroxide [(UO <sub>2</sub> ) <sub>4</sub> O(OH) <sub>6</sub> ] $\cdot$ 6H <sub>2</sub> O. <i>Dalton Transactions</i> , 2014, 43, 4400-4407.	3.3	30
31	Thiocyanate Complexes of Uranium in Multiple Oxidation States: A Combined Structural, Magnetic, Spectroscopic, Spectroelectrochemical, and Theoretical Study. <i>Inorganic Chemistry</i> , 2014, 53, 8624-8637.	4.0	28
32	Synthesis, structure and photophysical properties of [UO <sub>2</sub> X <sub>2</sub> (O $\phi$ PPH <sub>3</sub> ) <sub>2</sub> ] (X = Cl, Br, I). <i>Dalton Transactions</i> , 2014, 43, 1125-1131.	3.3	16
33	Synthesis, characterization, in vitro antimicrobial, and U2OS tumoricidal activities of different coumarin derivatives. <i>BMC Chemistry</i> , 2013, 7, 68.	3.8	22
34	New dicoumarol sodium compound: crystal structure, theoretical study and tumoricidal activity against osteoblast cancer cells. <i>Chemistry Central Journal</i> , 2013, 7, 110.	2.6	9
35	New Mechanism for the Ring-Opening Polymerization of Lactones? Uranyl Aryloxide-Induced Intermolecular Catalysis. <i>Inorganic Chemistry</i> , 2013, 52, 9077-9086.	4.0	45
36	Fingerprinting the oxidation state of U(IV) by emission spectroscopy. <i>Dalton Transactions</i> , 2013, 42, 14677.	3.3	14

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37	Emission spectroscopy of uranium(IV) compounds: a combined synthetic, spectroscopic and computational study. <i>RSC Advances</i> , 2013, 3, 4350.	3.6	57
38	Synthesis and distinct urease enzyme inhibitory activities of metal complexes of Schiff-base ligands: Kinetic and thermodynamic parameters evaluation from TG-DTA analysis. <i>Thermochimica Acta</i> , 2013, 555, 72-80.	2.7	18
39	Urease and L-tryptophan inhibitory activities of transition metal complexes of new Schiff base ligand: Kinetic and thermodynamic studies of the synthesized complexes using TG-DTA pyrolysis. <i>Thermochimica Acta</i> , 2013, 562, 22-28.	2.7	24
40	New Reactivity of the Uranyl(VI) Ion. <i>Chemistry - A European Journal</i> , 2012, 18, 16258-16271.	3.3	100
41	The coordination and organometallic chemistry of UO <sub>2</sub> and U{N(SiMe <sub>3</sub> ) <sub>2</sub> } <sub>3</sub> : Synthetic reagents par excellence. <i>Coordination Chemistry Reviews</i> , 2012, 256, 2843-2871.	18.8	35
42	New reactivity of the uranyl ion: ring opening polymerisation of epoxides. <i>Chemical Communications</i> , 2012, 48, 985-987.	4.1	34
43	Physical Characterization and Reactivity of the Uranyl Peroxide [UO <sub>2</sub> ( <sup>2</sup> -O <sub>2</sub> )(H <sub>2</sub> O) <sub>2</sub> ] <sup>2+</sup> ·2H <sub>2</sub> O: Implications for Storage of Spent Nuclear Fuels. <i>Inorganic Chemistry</i> , 2012, 51, 8509-8515.	4.0	31
44	Synthesis, characterization and distinct butyrylcholinesterase activities of transition metal complexes of 2-[(E)-(quinolin-3-ylimino)methyl]phenol. <i>Inorganica Chimica Acta</i> , 2012, 390, 210-216.	2.4	20
45	Fluorine-Fluorine Interactions in the Solid State: An Experimental and Theoretical Study. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1435-1444.	2.5	132
46	Ring-Opening Polymerization of Epoxides Catalyzed by Uranyl Complexes: An Experimental and Theoretical Study of the Reaction Mechanism. <i>Inorganic Chemistry</i> , 2012, 51, 9132-9140.	4.0	23
47	Fluorous catalyst recycling utilising highly fluorinated zinc compounds: Ring opening polymerisation of ε-caprolactone. <i>Journal of Fluorine Chemistry</i> , 2012, 139, 58-62.	1.7	6
48	Perfluorinated phosphine oxide and sulfides as extractants for heavy metals and radionuclides. <i>Journal of Environmental Management</i> , 2011, 92, 2781-2785.	7.8	22
49	Perfluorinated oxygen- and sulfur-containing compounds as extractants for gold(III). <i>Gold Bulletin</i> , 2011, 44, 79-83.	2.4	11
50	A Study of the Reactivity of Secondary Phosphanes with Radical Sources: A New Dehydrocoupling Reaction. <i>Helvetica Chimica Acta</i> , 2010, 93, 1081-1085.	1.6	13
51	Thermomorphic metal scavengers: A synthetic and multinuclear NMR study of highly fluorinated ketones and their application in heavy metal removal. <i>Journal of Fluorine Chemistry</i> , 2010, 131, 621-626.	1.7	18
52	The Coupling of Pyridine and Dichloromethane Mediated by UO <sub>2</sub> Cl <sub>2</sub> . <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2010, 636, 443-445.	1.2	7
53	Perfluorinated phenols as extraction agents for Cs <sup>+</sup> and Sr <sup>2+</sup> . <i>Radiochimica Acta</i> , 2010, 98, 507-511.	1.2	7
54	Investigations into the preparation of groups 13-15 N-heterocyclic carbene analogues. <i>Inorganica Chimica Acta</i> , 2008, 361, 427-435.	2.4	53

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55	Complexes of a gallium heterocycle with transition metal dicyclopentadienyl and cyclopentadienylcarbonyl fragments, and with a dialkylmanganese compound. Dalton Transactions, 2006, , 3313.	3.3	66
56	The reactivity of gallium-(i), -(ii) and -(iii) heterocycles towards Group 15 substrates: attempts to prepare gallium-terminated pnictinidene complexes. Dalton Transactions, 2006, , 64-72.	3.3	48
57	Synthesis and characterisation of sterically bulky lithium amidinate and bis-amidinate complexes. Journal of Organometallic Chemistry, 2006, 691, 65-71.	1.8	38
58	Adduct formation of [(1-7-C7H7)Zr(1-5-C5H5)] with phosphines and N-heterocyclic carbenes: An experimental and theoretical study. Inorganica Chimica Acta, 2006, 359, 4797-4801.	2.4	29
59	The coordination chemistry and reactivity of group 13 metal(I) heterocycles. Coordination Chemistry Reviews, 2005, 249, 1857-1869.	18.8	178
60	An EPR and ENDOR Investigation of a Series of Diazabutadiene-Group 13 Complexes. Chemistry - A European Journal, 2005, 11, 2972-2982.	3.3	65
61	Gal: A versatile reagent for the synthetic chemist. Dalton Transactions, 2005, , 1341-1348.	3.3	84
62	Oxidation reactions of an anionic gallium(i) N-heterocyclic carbene analogue with group 16 compounds. Dalton Transactions, 2005, , 2106.	3.3	53
63	Reactions of a Gallium(II)-Diazabutadiene Dimer, [Cp2Zr{Ga[N(Ar)C(H)]2}2], with [ME(SiMe3)2] (M = Li or Tl). Inorganic Chemistry, 2005, 44, 2098-2105.	4.0	16
64	Evidence for the first oxidative insertion of a transition metal into a digallane(4): synthesis, structural characterisation and EPR studies of [Cp2Zr{Ga[N(Ar)C(H)]2}2][Li(THF)4], Ar = C6H3Pri2-2,6. Chemical Communications, 2005, , 1339.	4.1	54
65	The Molecular Structure of Ditrityphenyl Ditelluride. Main Group Metal Chemistry, 2004, 27, .	1.6	5
66	Kinetic Control over the Thermal Stability of the In-CH Bond: Synthesis and Characterization of Amido Indium Hydride Complexes. Angewandte Chemie - International Edition, 2004, 43, 3852-3855.	13.8	35
67	9-Triptyceny complexes of group 13 and 15 halides and hydrides. Journal of Organometallic Chemistry, 2004, 689, 781-790.	1.8	30
68	The synthesis and structural characterisation of the first gallium(II) dialkylphosphide complex. Inorganic Chemistry Communication, 2004, 7, 1289-1291.	3.9	6
69	Oxidative Coupling of an Anionic Gallium(I) Carbene Analogue: Synthesis and Structural Characterization of an Unprecedented $\mu$ -Cyclopentadienyl-Bridged Digallane Complex. Organometallics, 2004, 23, 4811-4813.	2.3	41
70	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
71	Title is missing!. Transition Metal Chemistry, 2003, 28, 296-299.	1.4	27
72	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

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73	Title is missing!. <i>Angewandte Chemie</i> , 2003, 115, 2764-2767.	2.0	9
74	Synthesis and Structural Characterization of Thermally Stable Group 13 Hydride Complexes Derived from a Gallium(I) Carbene Analogue. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 2660-2663.	13.8	80
75	Crystallographic report: [1,3-Di(mesityl)imidazol-2-ylidene]gallium iodide dihydride. <i>Applied Organometallic Chemistry</i> , 2003, 17, 807-808.	3.5	20
76	The synthesis of phosphorus heterocycles from tetra-tert-butyltetraphosphacubane. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2003, 59, m339-m341.	0.4	4
77	(2,6-Diisopropylphenyl)isopropylideneammonium iodide. <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2003, 59, o538-o539.	0.2	0
78	Analogies between the Reactivities of an Anionic Gallium(I) Heterocycle and N-Heterocyclic Carbenes Toward Metallocenes. <i>Journal of the American Chemical Society</i> , 2003, 125, 10534-10535.	13.7	77
79	Low valent carbonylvandium complexes of the triphosphorus macrocycle 12[ane]P3Et3. <i>Dalton Transactions</i> , 2003, , 944-948.	3.3	10
80	The reaction of $\text{Gal}^{\text{TM}}$ with a 1,3-diyne: synthesis, characterisation and reactivity of a novel C-C coupled ene-diyne-bis(gem-organodigallium(iii)) complex Electronic supplementary information (ESI) available: full synthetic details for 2-4. Molecular structure of 4. See <a href="http://www.rsc.org/suppdata/cc/b2/b210868m/">http://www.rsc.org/suppdata/cc/b2/b210868m/</a> . <i>Chemical Communications</i> , 2003, , 390-391.	4.1	12
81	Synthesis, structural and theoretical studies of an iron-gallium(i) heterocycle complex: Analogies with N-heterocyclic carbene chemistry. <i>Dalton Transactions</i> , 2003, , 3673-3674.	3.3	50
82	Synthesis and characterisation of the first carbene and diazabutadiene-indium(ii) complexes Electronic supplementary information (ESI) available: synthetic details. See <a href="http://www.rsc.org/suppdata/cc/b2/b202532a/">http://www.rsc.org/suppdata/cc/b2/b202532a/</a> . <i>Chemical Communications</i> , 2002, , 1196-1197.	4.1	67
83	Manganese and rhenium triphosphorus macrocycle complexes and reactions with alkenes. <i>Dalton Transactions RSC</i> , 2002, , 3985-3992.	2.3	31
84	The reactivity of diazabutadienes toward low oxidation state Group 13 iodides and the synthesis of a new gallium(i) carbene analogue. <i>Dalton Transactions RSC</i> , 2002, , 3844.	2.3	191
85	Bidentate N-heterocyclic carbene complexes of Group 13 trihydrides and trihalides. <i>Dalton Transactions RSC</i> , 2002, , 1992-1996.	2.3	50
86	Transition metal complexes of triphosphorus macrocycles: A new class of homogeneous olefin polymerisation catalysts. <i>Dalton Transactions RSC</i> , 2002, , 2960-2965.	2.3	36
87	Early Transition Metal Complexes of Triphosphorus Macrocycles. <i>European Journal of Inorganic Chemistry</i> , 2002, 2002, 1975-1984.	2.0	24
88	Structural and spectroscopic studies of carbene and N-donor ligand complexes of Group 13 hydrides and halides. <i>Journal of Organometallic Chemistry</i> , 2002, 656, 203-210.	1.8	78