

# Andrew J Gaunt

## List of Publications by Year in descending order

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61  
papers

2,660  
citations

172457

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189892

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72  
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72  
docs citations

72  
times ranked

1819  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Developments in Synthesis and Structural Chemistry of Nonaqueous Actinide Complexes. <i>Chemical Reviews</i> , 2013, 113, 1137-1198.	47.7	282
2	Experimental and Theoretical Comparison of Actinide and Lanthanide Bonding in $M[N(EPR)_2]_2[M(EPR)_3]_3$ Complexes (M = U, Pu, La, Ce; E = S, Se, Te; R = Ph.) <i>J Chem Phys</i> 137, 044701 (2012).	4.0	7
3	Uncovering f-element bonding differences and electronic structure in a series of $1\text{-}f\text{-}d_3$ and $1\text{-}f\text{-}d_4$ complexes with a diselenophosphinate ligand. <i>Chemical Science</i> , 2013, 4, 1189.	7.4	146
4	Identification of the Formal +2 Oxidation State of Plutonium: Synthesis and Characterization of $\{Pu^{II}[C_5H_3(SiMe_3)_2]_3\}^{+}$ . <i>J Am Chem Soc</i> 139, 3970-3973.	13.7	121
5	Polyoxometal cations within polyoxometalate anions. Seven-coordinate uranium and zirconium heteroatom groups in $[(UO_2)_{12}(O)_{42}(H_2O)_{12}(P_2W_{15}O_{56})_4]^{32-}$ and $[Zr_4(O)_{12}(OH)_2(H_2O)_4(P_2W_{16}O_{59})_2]^{14-}$ . <i>J Mol Struct</i> , 2003, 656, 101-106.	3.6	105
6	Covalency in the f Element $\pi$ -Chalcogen Bond. Computational Studies of $M[N(EPR)_2]_2[M(EPR)_3]_3$ (M = La, Ce, Pr, Pm, Eu, U, Np, Pu, Am, Cm; E = O, S, Se.) <i>J Chem Phys</i> 118, 104701 (2003).	4.0	1
7	Identification of the Formal +2 Oxidation State of Neptunium: Synthesis and Structural Characterization of $\{Np^{II}[C_5H_3(SiMe_3)_2]_3\}^{+}$ . <i>J Am Chem Soc</i> , 2018, 140, 7425-7428.	13.7	81
8	A new structural family of heteropolytungstate lacunary complexes with the uranyl, $UO_2^{2+}$ , cation. <i>Dalton Transactions</i> , 2003, , 3009.	3.3	79
9	Bonding Trends Traversing the Tetravalent Actinide Series: Synthesis, Structural, and Computational Analysis of $An^{IV}(Aracn)_4$ Complexes (An = Th, U, Np, Pu); <i>J Chem Phys</i> 117, 8557-8566.	4.0	76
10	A Molecular Actinide $\pi$ -Tellurium Bond and Comparison of Bonding in $[MIII\{N(TePiPr)_2\}_3]$ (M=U, La). <i>Angewandte Chemie - International Edition</i> , 2006, 45, 1638-1641.	13.8	68
11	Redox Behavior of Cyclo[6]pyrrole in the Formation of a Uranyl Complex. <i>Inorganic Chemistry</i> , 2007, 46, 5143-5145.	4.0	64
12	U(IV) Chalcogenolates Synthesized via Oxidation of Uranium Metal by Dichalcogenides. <i>Inorganic Chemistry</i> , 2006, 45, 7401-7407.	4.0	63
13	Plutonium(IV) complexation by diglycolamide ligands: coordination chemistry insight into TODGA-based actinide separations. <i>Chemical Communications</i> , 2012, 48, 9732.	4.1	63
14	Title is missing!. <i>Journal of Cluster Science</i> , 2002, 13, 423-436.	3.3	62
15	Synthesis and Structure of $(Ph)_4P)_2MCl_6$ (M = Ti, Zr, Hf, Th, U, Np.) <i>J Chem Phys</i> 114, 0784314 (2001).	4.0	61
16	A rare structural characterisation of the phosphomolybdate lacunary anion, $[PMo_{11}O_{39}]^{7-}$ . Crystal structures of the Ln(III) complexes, $(NH_4)_{11}[Ln(PMo_{11}O_{39})_2] \cdot 16H_2O$ (Ln = CeIII, SmIII, DyIII or LuIII). <i>Dalton Transactions</i> , 2003, , 2767-2771.	3.3	58
17	The First Structural and Spectroscopic Characterization of a Neptunyl Polyoxometalate Complex. <i>J Am Chem Soc</i> , 2002, 124, 13350-13351.	13.7	56
18	A Novel Zirconium Polyoxometalate Complex That Contains Both a Coordinated Saturated Anion, $[PMo_{12}O_{40}]^{3-}$ , and a Coordinated Unsaturated Anion, $[PMo_{11}O_{39}]^{7-}$ . <i>Inorganic Chemistry</i> , 2003, 42, 5049-5051.	4.0	44

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19	Covalency in the f-elementâ€“chalcogen bond. <i>Journal of Alloys and Compounds</i> , 2007, 444-445, 369-375.	5.5	44
20	Homoleptic uranium(iii) imidodiphosphinochalcogenides including the first structurally characterised molecular trivalent actinideâ€“Se bond. <i>Chemical Communications</i> , 2005, , 3215.	4.1	41
21	Synthesis and characterization of NpCl <sub>4</sub> (DME) <sub>2</sub> and PuCl <sub>4</sub> (DME) <sub>2</sub> neutral transuranic An(IV) starting materials. <i>Dalton Transactions</i> , 2014, 43, 1498-1501.	3.3	40
22	Recent developments in nonaqueous plutonium coordination chemistry. <i>Comptes Rendus Chimie</i> , 2010, 13, 821-831.	0.5	38
23	Structural and Spectroscopic Characterization of Plutonyl(VI) Nitrate under Acidic Conditions. <i>Inorganic Chemistry</i> , 2011, 50, 4244-4246.	4.0	38
24	Structural Characterization of Pu[N(SiMe <sub>3</sub> ) <sub>2</sub> ] <sub>3</sub> , a Synthetically Useful Nonaqueous Plutonium(III) Precursor. <i>Inorganic Chemistry</i> , 2008, 47, 26-28.	4.0	37
25	Low-Valent Molecular Plutonium Halide Complexes. <i>Inorganic Chemistry</i> , 2008, 47, 8412-8419.	4.0	36
26	[N(i-Bu) <sub>4</sub> ] <sub>2</sub> [Pu(NO <sub>3</sub> ) <sub>6</sub> ] and [N(i-Bu) <sub>4</sub> ] <sub>2</sub> [PuCl <sub>6</sub> ]: Starting Materials To Facilitate Nonaqueous Plutonium(IV) Chemistry. <i>Inorganic Chemistry</i> , 2012, 51, 9165-9167.	4.0	36
27	Oxoneptunium(v) as part of the framework of a polyoxometalate. <i>Chemical Communications</i> , 2006, , 3788.	4.1	34
28	A Linear <i>trans</i> -Bis(imido) Neptunium(V) Actinyl Analog: Np <sup>V</sup> (NDipp) <sub>2</sub> ( <i>trans</i> -Bu <sub>2</sub> bipy) <sub>2</sub> Cl (Dipp = 2,6- <i>Pr</i> <sub>2</sub> C <sub>6</sub> H <sub>3</sub> ). <i>Journal of the American Chemical Society</i> , 2015, 137, 9583-9586.	13.7	33
29	Coordination chemistry of 2,2â€²-biphenylenedithiophosphinate and diphenyldithiophosphinate with U, Np, and Pu. <i>Dalton Transactions</i> , 2015, 44, 18923-18936.	3.3	31
30	An entry route into non-aqueous plutonyl coordination chemistry. <i>Chemical Communications</i> , 2007, , 1659.	4.1	30
31	[Am(C <sub>5</sub> Me <sub>4</sub> H) <sub>3</sub> ]: An Organometallic Americium Complex. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 11695-11699.	13.8	29
32	Intercomparison of the Radio-Chronometric Ages of Plutonium-Certified Reference Materials with Distinct Isotopic Compositions. <i>Analytical Chemistry</i> , 2019, 91, 11643-11652.	6.5	28
33	In-Plane Thorium(IV), Uranium(IV), and Neptunium(IV) Expanded Porphyrin Complexes. <i>Journal of the American Chemical Society</i> , 2019, 141, 17867-17874.	13.7	28
34	The Reaction Chemistry of Plutonyl(VI) Chloride Complexes with Triphenyl Phosphineoxide and Triphenyl Phosphinimine. <i>Inorganic Chemistry</i> , 2010, 49, 9554-9562.	4.0	27
35	Differences in actinide metalâ€“ligand orbital interactions: comparison of U(IV) and Pu(IV) $\eta^2$ -ketoiminate N,O donor complexes. <i>Chemical Communications</i> , 2011, 47, 7647.	4.1	26
36	Neptunium and plutonium complexes with a sterically encumbered triamidoamine (TREN) scaffold. <i>Chemical Communications</i> , 2016, 52, 5428-5431.	4.1	26

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37	Synthesis and Coordination Chemistry of Phosphine Oxide Decorated Dibenzofuran Platforms. <i>Inorganic Chemistry</i> , 2012, 51, 6667-6681.	4.0	25
38	Isolation and characterization of a californium metallocene. <i>Nature</i> , 2021, 599, 421-424.	27.8	25
39	A Single Small-Scale Plutonium Redox Reaction System Yields Three Crystallographically-Characterizable Organoplutonium Complexes. <i>Inorganic Chemistry</i> , 2020, 59, 13301-13314.	4.0	23
40	Structural and Spectroscopic Comparison of Soft vs. Hard Donor Bonding in Trivalent Americium/Neodymium Molecules. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 9459-9466.	13.8	23
41	Small-Scale Metal-Based Syntheses of Lanthanide Iodide, Amide, and Cyclopentadienyl Complexes as Analogues for Transuranic Reactions. <i>Inorganic Chemistry</i> , 2017, 56, 11981-11989.	4.0	22
42	A terminal neptunium(V) mono(oxo) complex. <i>Nature Chemistry</i> , 2022, 14, 342-349.	13.6	19
43	Non-aqueous neptunium and plutonium redox behaviour in THF access to a rare Np(III) synthetic precursor. <i>Chemical Communications</i> , 2018, 54, 6113-6116.	4.1	18
44	Probing the 5f electrons in a plutonyl(VI) cluster complex. <i>Dalton Transactions</i> , 2009, , 5609.	3.3	17
45	[Am(C <sub>5</sub> Me <sub>4</sub> H) <sub>3</sub> ]: An Organometallic Americium Complex. <i>Angewandte Chemie</i> , 2019, 131, 11821-11825.	2.0	16
46	A novel zirconium polyoxometalate compound: (NH <sub>4</sub> ) <sub>9</sub> [Zr <sub>2</sub> ( $\frac{1}{4}$ -OH)(H <sub>2</sub> O) <sub>2</sub> (AsOH) <sub>2</sub> (AsW <sub>7</sub> O <sub>28</sub> )(AsW <sub>10</sub> O <sub>36</sub> )] $\cdot$ 26H <sub>2</sub> O. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , 2003, 59, i65-i66.	0.4	14
47	Unexpected Actinyl Cation-Directed Structural Variation in Neptunyl(VI) A-Type Tri-lacunary Heteropolyoxotungstate Complexes. <i>Inorganic Chemistry</i> , 2015, 54, 4192-4199.	4.0	14
48	Sample seal-and-drop device and methodology for high temperature oxide melt solution calorimetric measurements of PuO <sub>2</sub> . <i>Review of Scientific Instruments</i> , 2019, 90, 044101.	1.3	14
49	[An(C <sub>5</sub> Me <sub>4</sub> H) <sub>3</sub> ](THF) <sub>4</sub> (An = Np, Pu) Preparation Bypassing An(III) Metal Precursors: Access to Np(IV)/Pu(IV) Nonaqueous and Organometallic Complexes. <i>Journal of the American Chemical Society</i> , 2021, 143, 20680-20696.	13.7	14
50	Stabilising pentavalent actinides visible near infrared and X-ray absorption spectroscopic studies of the utility of the [(Np <sub>3</sub> W <sub>4</sub> O <sub>15</sub> )(H <sub>2</sub> O) <sub>3</sub> (MW <sub>9</sub> O <sub>33</sub> ) <sub>3</sub> ] <sub>18</sub> (M = Sb, Bi) structural type. <i>Dalton Transactions</i> , 2012, 41, 2003-2010.	3.3	13
51	Complexation and redox chemistry of neptunium, plutonium and americium with a hydroxylaminato ligand. <i>Chemical Science</i> , 2021, 12, 13343-13359.	7.4	13
52	Early-Lanthanide(III) Acetonitrile Solvento Adducts with Iodide and Noncoordinating Anions. <i>Inorganic Chemistry</i> , 2015, 54, 11958-11968.	4.0	12
53	Expanding the Nonaqueous Chemistry of Neptunium: Synthesis and Structural Characterization of [Np(NR <sub>2</sub> ) <sub>3</sub> Cl], [Np(NR <sub>2</sub> ) <sub>3</sub> Cl] <sup>+</sup> , and [Np(NR <sub>2</sub> ) <sub>3</sub> (R)(SiMe <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> ] <sub>2</sub> (NR <sub>2</sub> ) <sup>+</sup> (R = SiMe <sub>3</sub> ). <i>Inorganic Chemistry</i> , 2021, 60, 2740-2748.	4.0	11
54	Plutonium coordination and redox chemistry with the CyMe <sub>4</sub> -BTPhen polydentate N-donor extractant ligand. <i>Chemical Communications</i> , 2018, 54, 12582-12585.	4.1	10

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55	Lanthanide(III) Di- and Tetra-Nuclear Complexes Supported by a Chelating Tripodal Tris(Amidate) Ligand. <i>Inorganic Chemistry</i> , 2015, 54, 4064-4075.	4.0	8
56	2.2.2-Cryptand complexes of neptunium( $\text{Np}^{3+}$ ) and plutonium( $\text{Pu}^{3+}$ ). <i>Chemical Communications</i> , 2022, 58, 997-1000.	4.1	8
57	Carbene Complexes of Neptunium. <i>Journal of the American Chemical Society</i> , 2022, 144, 9764-9774.	13.7	7
58	Synthesis and characterization of potassium aryl- and alkyl-substituted silylchalcogenolate ligands. <i>Dalton Transactions</i> , 2016, 45, 9841-9852.	3.3	4
59	Structural and Spectroscopic Comparison of Soft $\sigma$ -Donor vs. Hard $\pi$ -Donor Bonding in Trivalent Americium/Neodymium Molecules. <i>Angewandte Chemie</i> , 2021, 133, 9545-9552.	2.0	4
60	Abstract: $[\text{Am}(\text{C}_5\text{Me}_4\text{H})_3]$ : An Organometallic Americium Complex ( <i>Angew. Chem.</i> 34/2019). <i>Angewandte Chemie</i> , 2019, 131, 12050-12050.	2.0	0
61	Abstract: Structural and Spectroscopic Comparison of Soft $\sigma$ -Donor vs. Hard $\pi$ -Donor Bonding in Trivalent Americium/Neodymium Molecules ( <i>Angew. Chem.</i> 17/2021). <i>Angewandte Chemie</i> , 2021, 133, 9812-9812.	2.0	0