

Craig E Barnes

List of Publications by Year in descending order

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63
papers

1,926
citations

331670

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265206

42
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docs citations

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times ranked

2183
citing authors

#	ARTICLE	IF	CITATIONS
1	Imprint Coating: A Novel Synthesis of Selective Functionalized Ordered Mesoporous Sorbents. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 1235-1239.	13.8	271
2	Electrochemical and Solid-State Lithiation of Graphitic C ₃ N ₄ . <i>Chemistry of Materials</i> , 2013, 25, 503-508.	6.7	141
3	Synthesis, proton NMR, and structural characterization of binuclear ruthenium porphyrin dimers. <i>Journal of the American Chemical Society</i> , 1984, 106, 3500-3510.	13.7	139
4	Ionic Liquids: A New Class of Sensing Materials for Detection of Organic Vapors Based on the Use of a Quartz Crystal Microbalance. <i>Analytical Chemistry</i> , 2002, 74, 2172-2176.	6.5	133
5	Further studies of the dimeric .beta.-linked "face-to-face four" porphyrin: FTF4. <i>Journal of the American Chemical Society</i> , 1983, 105, 2694-2699.	13.7	93
6	The Power of Non-Hydrolytic Sol-Gel Chemistry: A Review. <i>Catalysts</i> , 2017, 7, 168.	3.5	77
7	Search for Electroweak Interactions in Amino Acid Crystals. II. The Salam Hypothesis. <i>Journal of Physical Chemistry A</i> , 2003, 107, 6674-6680.	2.5	67
8	Binuclear ruthenium(II) porphyrins: reinvestigation of their preparation, characterization, and interactions with molecular oxygen. <i>Journal of the American Chemical Society</i> , 1981, 103, 7030-7032.	13.7	66
9	Functionalized Solâˆ“Gels for Selective Copper(II) Separation. <i>Environmental Science & Technology</i> , 2000, 34, 2209-2214.	10.0	55
10	Linkage Isomerization as a Mechanism for Photochromic Materials: Cyclopentadienylmanganese Tricarbonyl Derivatives with Chelatable Functional Groups. <i>Organometallics</i> , 2008, 27, 289-296.	2.3	52
11	Catalytic transfer hydrogenolysis of organosolv lignin using B-containing FeNi alloyed catalysts. <i>Catalysis Today</i> , 2018, 302, 190-195.	4.4	49
12	Crown Ether-Doped Solâˆ“Gel Materials for Strontium(II) Separation. <i>Analytical Chemistry</i> , 2000, 72, 5516-5519.	6.5	44
13	Functionalized solâˆ“gels for mercury(II) separation: a comparison of mesoporous materials prepared with and without surfactant templates. <i>Microporous and Mesoporous Materials</i> , 2004, 70, 57-62.	4.4	43
14	Two new members of the dimeric .beta.-linked face-to-face porphyrin family: FTF4* and FTF3. <i>Journal of the American Chemical Society</i> , 1983, 105, 2704-2710.	13.7	42
15	Synthesis of homogeneous silicophosphate xerogels by non-hydrolytic condensation reactions. <i>Microporous and Mesoporous Materials</i> , 2014, 197, 204-212.	4.4	35
16	Bistable Photochromic Organometallics Based on Linkage Isomerization:â€‰ Photochemistry of Dicarbonyl(Î·5-methylcyclopentadienyl)manganese(I) Derivatives with a Bifunctional, Nonchelating Ligand. <i>Organometallics</i> , 2004, 23, 2708-2714.	2.3	33
17	Transition-metal methylene complexes. 57. The unusual structure and reactivity of the paramagnetic trinuclear cluster compound (.eta.5-C5Me5)Ir(.mu.-CO)2Co2(.eta.5-C5H5)2. <i>Organometallics</i> , 1985, 4, 172-180.	2.3	25
18	Ipso nitration. Characterization of nitro group shifts in 4-methyl-4-nitrocyclohexa-2,5-dienones. <i>Journal of the American Chemical Society</i> , 1978, 100, 973-975.	13.7	22

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19	EXAFS Study of Uranyl Nitrate Dimer at High and Low Temperature. <i>Inorganic Chemistry</i> , 2000, 39, 862-864.	4.0	22
20	Control of micro/mesoporosity in non-hydrolytic hybrid silicophosphate xerogels. <i>Journal of Materials Chemistry A</i> , 2015, 3, 7477-7487.	10.3	22
21	Olefin Rotation in the Solid State: A ¹³ C, ¹ H, and ² H NMR Study of Rh(acac)(C ₂ H ₄) ₂ . <i>Journal of the American Chemical Society</i> , 1994, 116, 7445-7446.	13.7	21
22	Synthesis and structure of functional spherosilicate building block molecules for materials synthesis. <i>Journal of Organometallic Chemistry</i> , 2006, 691, 3213-3222.	1.8	20
23	Synthesis, structure, and reactivity of Cp ₃ Co ₃ (CO) ₂ . <i>Journal of the American Chemical Society</i> , 1989, 111, 4992-4994.	13.7	19
24	Mesoporous titanosilicates by templated non-hydrolytic sol-gel reactions. <i>Journal of Sol-Gel Science and Technology</i> , 2015, 74, 810-822.	2.4	19
25	Novel non-hydrolytic templated sol-gel synthesis of mesoporous aluminosilicates and their use as aminolysis catalysts. <i>RSC Advances</i> , 2016, 6, 24273-24284.	3.6	19
26	Synthesis and studies of cis-Mo(CO) ₂ (L) ₂ and Mo(L) ₃ complexes of 2-(phenylazo)pyridines (L) and the crystal structures of Mo(CO) ₂ (4-methyl-2-(phenylazo)pyridine) ₂ and Mo(4-methyl-2-(phenylazo)pyridine) ₃ . <i>Inorganica Chimica Acta</i> , 2002, 334, 193-203.	2.4	18
27	Building block syntheses of site-isolated vanadyl groups in silicate oxides. Electronic supplementary information (ESI) available: summary of experimental procedures, 51V NMR collection parameters, BET, IR and Raman data. See http://www.rsc.org/suppdata/cc/b3/b316184f/ . <i>Chemical Communications</i> , 2004, , 856.	4.1	18
28	Non-aqueous template-assisted synthesis of mesoporous nanocrystalline silicon orthophosphate. <i>RSC Advances</i> , 2015, 5, 73670-73676.	3.6	18
29	Synthesis, structures, proton NMR spectra, and reactivity of paramagnetic 46-electron trinuclear clusters of the form (Cp [*] M) _n (CpCo) _{3-n} (μ ₃ -CO) ₂ (M = cobalt, rhodium, iridium; n = 1, 2). <i>Organometallics</i> , 1990, 9, 1021-1035.	2.3	15
30	Reaction of the Si ₈ O ₂₀ (SnMe ₃) ₈ Building Block with Silyl Chlorides: A New Synthetic Methodology for Preparing Nanostructured Building Block Solids. <i>Chemistry of Materials</i> , 2007, 19, 3212-3218.	6.7	15
31	Cyclopentadienyl Cobalt Cluster Complexes Containing the Furyne Ligand. <i>Journal of the American Chemical Society</i> , 1995, 117, 1855-1856.	13.7	12
32	Comparison of Isomerization Rates of the Metal Carbonyl Cluster Cp [*] IrCp ₂ Co ₂ (CO) ₃ in Three Oxidation States (47e, 48e, 49e): A Dramatic Rate Enhancements in the Odd-Electron Species. <i>Journal of the American Chemical Society</i> , 1997, 119, 2804-2811.	13.7	12
33	Synthesis and Structure of Aluminum-Fluorine-Oxygen Clusters. <i>Angewandte Chemie International Edition in English</i> , 1997, 36, 2625-2626.	4.4	12
34	Tungsten Fluorides: Syntheses and Electrochemical Characterization in the FLINAK Molten Salt Eutectic. <i>Inorganic Chemistry</i> , 2001, 40, 715-722.	4.0	12
35	Reactions of thioether carboxylic acids with mercury(II). Formation and X-ray crystal structure of mercury(II) mercaptoacetate. <i>Inorganica Chimica Acta</i> , 2004, 357, 243-249.	2.4	12
36	Trinuclear Cluster Complexes Containing the Furyne Ligand: Synthesis, Structure, and Properties of the Cycloalkyne Complexes (CpCo) _n (Cp [*] Co) _{3-n} (CO)(1/4 3-1-2-C ₄ H ₄ O) (n = 3, 2). <i>Organometallics</i> , 1997, 16, 2152-2159.	2.3	11

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37	Synthesis, characterization, and reactivity of several unusual trinuclear clusters containing either rhodium or cobalt and the cyclopentadienyl or pentamethylcyclopentadienyl ligands. <i>Organometallics</i> , 1988, 7, 782-784.	2.3	10
38	Hydrogen adsorption and diffusion in amorphous, metal-decorated nanoporous silica. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9241-9253.	7.1	10
39	Surface reactivity of non-hydrolytic silicophosphate xerogels: a simple method to create Brønsted or Lewis acid sites on porous supports. <i>New Journal of Chemistry</i> , 2016, 40, 3705-3715.	2.8	10
40	Synthesis, characterization and catalytic activity of single site, Lewis acidic aluminosilicates. <i>Catalysis Today</i> , 2019, 334, 131-139.	4.4	10
41	Ipso nitration. A study of the migratory aptitude of the nitro group in the 1,2-dimethyl-1-nitrocyclohexadienyl cation. <i>Journal of the American Chemical Society</i> , 1978, 100, 975-976.	13.7	9
42	Facile addition of alkynes to (CpCo) ₃ (CO) ₂ . A general method for the synthesis of (CpCo) ₃ (CO)(RCCR') complexes. <i>Organometallics</i> , 1990, 9, 1695-1697.	2.3	9
43	Characterization of rhodium olefin complexes chemisorbed onto γ -alumina by solid-state ¹³ C NMR and EXAFS spectroscopies. <i>Organometallics</i> , 1991, 10, 3803-3806.	2.3	9
44	Reversible Carbene-Carbyne Interconversion on a Trinuclear Cluster. <i>Organometallics</i> , 1994, 13, 3770-3772.	2.3	9
45	¹¹⁹ Sn NMR chemical shift tensors in anhydrous and hydrated Si ₈ O ₂₀ (SnMe ₃) ₈ crystals. <i>Magnetic Resonance in Chemistry</i> , 2008, 46, 690-692.	1.9	9
46	Alkylidene dynamics in the cluster complex Cp [*] -Rh(CpCo) ₂ (CO) ₂ (η^4 -CH ₂): Observation of an intermediate containing a η^3 -methylidene ligand. <i>Polyhedron</i> , 1998, 17, 1045-1054.	2.2	8
47	The targeted synthesis of single site vanadyl species on the surface and in the framework of silicate building block materials. <i>Catalysis Today</i> , 2011, 160, 153-164.	4.4	8
48	Carbene Migration in a Cluster Complex. Observation of an Intermediate Containing a η^3 -CH ₂ Ligand. <i>Journal of the American Chemical Society</i> , 1997, 119, 7585-7586.	13.7	7
49	Temperature Dependent Rh ₂ EXAFS in Dinuclear and Adsorbed Rhodium Species. <i>Journal of the American Chemical Society</i> , 1995, 117, 5861-5862.	13.7	6
50	Methylidene and hydrazone complexes of the cluster family: Cp [*] 3M ₃ (CO) ₂ (CH ₂) (M=Co, Rh, Ir). <i>Journal of Organometallic Chemistry</i> , 2001, 617-618, 561-570.	1.8	6
51	Organofunctional Sol-Gel Materials for Toxic Metal Separation. <i>ACS Symposium Series</i> , 2006, , 223-237.	0.5	6
52	Methane and carbon dioxide adsorption and diffusion in amorphous, metal-decorated nanoporous silica. <i>Molecular Simulation</i> , 2014, 40, 618-633.	2.0	6
53	Hybrid microporous and mesoporous organosilicate covalent polymers with high porosity. <i>Microporous and Mesoporous Materials</i> , 2017, 240, 205-215.	4.4	6
54	Cluster Complexes of Cobalt, Rhodium, and Iridium. , 1995, , 419-520.		6

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55	Solvation of Calix[4]arene-bis-crown-6 Molecules. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2002, 42, 241-245.	1.6	5
56	The Adsorption Properties of Amorphous, Metal-Decorated Microporous Silsesquioxanes for Mixtures of Carbon Dioxide, Methane and Hydrogen. <i>Journal of Physical Chemistry C</i> , 2014, 118, 13008-13017.	3.1	5
57	Mechanistic study of the solvent-induced fragmentation of Cp ₃ Co ₃ (CO) ₂ . <i>Organometallics</i> , 1993, 12, 1016-1017.	2.3	4
58	Diffusional and Internal Rotation in Single and Linked Trinuclear Bis(carbyne) Cluster Complexes Determined by ¹³ C NMR Relaxation Time Measurements. <i>Inorganic Chemistry</i> , 1997, 36, 3532-3538.	4.0	4
59	<i>Inorganic Chemistry</i> (Housecroft, Catherine E.; Sharpe, Alan G.). <i>Journal of Chemical Education</i> , 2003, 80, 747.	2.3	3
60	Mechanistic investigation of hydrolysis reactions of dithioacetal derivatives grafted on silica gels. <i>Talanta</i> , 2004, 63, 259-264.	5.5	2
61	<i>Inorganic Electronic Structure and Spectroscopy. Volume 1: Methodology; Volume 2: Applications and Case Studies</i> (ed. Solomon, E. I.; Lever, A. B. P.). <i>Journal of Chemical Education</i> , 2000, 77, 1283.	2.3	1
62	<i>Chemistry of Advanced Materials: An Overview</i> (ed.s Interrante, Leonard V.; Hampden-Smith, Mark J.). <i>Journal of Chemical Education</i> , 2000, 77, 1127.	2.3	1
63	<i>Applied Mathematics for Physical Chemistry, 2nd Edition</i> (Barrante, James R.). <i>Journal of Chemical Education</i> , 1999, 76, 610.	2.3	0