Craig John Medforth

List of Publications by Year
in descending order

104 papers	7,899 citations	50566 48 h-index	54771 88 g-index
111 all docs	111 docs citations	111 times ranked	6734 citing authors

#	Article	IF	Citations
1	Biomimetic Oxidation of Benzofurans with Hydrogen Peroxide Catalyzed by Mn(III) Porphyrins. Catalysts, 2020, 10, 62.	1.6	7
2	Protonation of Planar and Nonplanar Porphyrins: A Calorimetric and Computational Study. Journal of Physical Chemistry A, 2020, 124, 8994-9003.	1.1	7
3	Binary ionic iron(III) porphyrin nanostructured materials with catalase-like activity. Applied Materials Today, 2020, 21, 100830.	2.3	6
4	EPR spin trapping studies of H2O2 activation in metaloporphyrin catalyzed oxygenation reactions: Insights on the biomimetic mechanism. Molecular Catalysis, 2019, 475, 110500.	1.0	7
5	Nanoparticles as template for porphyrin nanostructure growth. Journal of Porphyrins and Phthalocyanines, 2019, 23, 526-533.	0.4	3
6	A Green and Versatile Route to Highly Functionalized Benzofuran Derivatives Using Biomimetic Oxygenation. ChemistrySelect, 2018, 3, 1392-1403.	0.7	11
7	Iron(III) Fluorinated Porphyrins: Greener Chemistry from Synthesis to Oxidative Catalysis Reactions. Molecules, 2016, 21, 481.	1.7	35
8	Ionic self-assembly reactions of a porphyrin octacation. Tetrahedron, 2016, 72, 6988-6995.	1.0	8
9	Determination of the activation energies for ND tautomerism and anion exchange in a porphyrin monocation. Journal of Porphyrins and Phthalocyanines, 2016, 20, 307-317.	0.4	6
10	Impact of Substituents and Nonplanarity on Nickel and Copper Porphyrin Electrochemistry: First Observation of a Cu^{II}/Cu^{III} Reaction in Nonaqueous Media. Inorganic Chemistry, 2014, 53, 10772-10778.	1.9	57
11	Synthesis and nanostructures of 5,10,15,20-tetrakis(4-piperidyl)porphyrin. Tetrahedron, 2013, 69, 10507-10515.	1.0	9
12	Charge Effects on the Structure and Composition of Porphyrin Binary Ionic Solids: ZnTPPS/SnTMePyP Nanomaterials. Chemistry of Materials, 2013, 25, 441-447.	3.2	22
13	Binary Ionic Porphyrin Nanomaterials for Energy from Sunlight. Handbook of Porphyrin Science, 2013, , 227-277.	0.3	3
14	Binary ionic porphyrin nanosheets: electronic and light-harvesting properties regulated by crystal structure. Nanoscale, 2012, 4, 1695.	2.8	49
15	Hierarchical cooperative binary ionic porphyrin nanocomposites. Chemical Communications, 2012, 48, 4863.	2.2	30
16	Morphological families of self-assembled porphyrin structures and their photosensitization of hydrogen generation. Chemical Communications, 2011, 47, 6069.	2.2	55
17	Templated growth of platinum nanowheels using the inhomogeneous reaction environment of bicelles. Physical Chemistry Chemical Physics, 2011, 13, 4846-4852.	1.3	37
18	Steric bulkiness of pyrrole substituents and the out-of-plane deformations of porphyrins: nickel(II) octaisopropylporphyrin and its meso-nitro derivative. Journal of Porphyrins and Phthalocyanines, 2011, 15, 727-741.	0.4	4

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19	Molecular organization in self-assembled binary porphyrin nanotubes revealed by resonance Raman spectroscopy. Physical Chemistry Chemical Physics, 2010, 12, 4072.	1.3	38
20	Donorâ^'Acceptor Biomorphs from the Ionic Self-Assembly of Porphyrins. Journal of the American Chemical Society, 2010, 132, 8194-8201.	6.6	111
21	Cobaltâ^'Porphyrin Catalyzed Electrochemical Reduction of Carbon Dioxide in Water. 2. Mechanism from First Principles. Journal of Physical Chemistry A, 2010, 114, 10174-10184.	1.1	130
22	Evolution of Dendritic Platinum Nanosheets into Ripening-Resistant Holey Sheets. Nano Letters, 2009, 9, 1534-1539.	4.5	37
23	Self-assembled porphyrin nanostructures. Chemical Communications, 2009, , 7261.	2.2	252
24	Silicaâ^'Metal Coreâ^'Shells and Metal Shells Synthesized by Porphyrin-Assisted Photocatalysis. Chemistry of Materials, 2008, 20, 7434-7439.	3.2	23
25	Monodisperse porphyrin nanospheres synthesized by coordination polymerization. Nanotechnology, 2008, 19, 395604.	1.3	54
26	Ab initio molecular dynamics study of manganese porphine hydration and interaction with nitric oxide. Journal of Chemical Physics, 2007, 126, 024501.	1.2	12
27	Self-Assembly and Self-Metallization of Porphyrin Nanosheets. Journal of the American Chemical Society, 2007, 129, 2440-2441.	6.6	173
28	Interfacial Synthesis of Dendritic Platinum Nanoshells Templated on Benzene Nanodroplets Stabilized in Water by a Photocatalytic Lipoporphyrin. Journal of the American Chemical Society, 2006, 128, 9284-9285.	6.6	55
29	Density Functional Theory and DFT+U Study of Transition Metal Porphines Adsorbed on Au(111) Surfaces and Effects of Applied Electric Fields. Journal of the American Chemical Society, 2006, 128, 3659-3668.	6.6	100
30	Foamlike Nanostructures Created from Dendritic Platinum Sheets on Liposomes. Chemistry of Materials, 2006, 18, 2335-2346.	3.2	88
31	Porphyrin Nanofiber Bundles from Phase-Transfer Ionic Self-Assembly and Their Photocatalytic Self-Metallization. Advanced Materials, 2006, 18, 2557-2560.	11.1	114
32	Nonplanar Heme Deformations and Excited State Displacements in Nickel Porphyrins Detected by Raman Spectroscopy at Soret Excitation. Journal of Physical Chemistry A, 2005, 109, 10493-10502.	1.1	39
33	Energetics and Structural Consequences of Axial Ligand Coordination in Nonplanar Nickel Porphyrins. Journal of the American Chemical Society, 2005, 127, 1179-1192.	6.6	100
34	Self-Metallization of Photocatalytic Porphyrin Nanotubes. Journal of the American Chemical Society, 2004, 126, 16720-16721.	6.6	190
35	Porphyrin Nanotubes by Ionic Self-Assembly. Journal of the American Chemical Society, 2004, 126, 15954-15955.	6.6	407
36	Synthesis of peptide-nanotube platinum-nanoparticle composites. Chemical Communications, 2004, , 1044-1045.	2.2	208

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37	Controlled Synthesis of 2-D and 3-D Dendritic Platinum Nanostructures. Journal of the American Chemical Society, 2004, 126, 635-645.	6.6	381
38	NMR Spectroscopy of Diamagnetic Porphyrins. ChemInform, 2003, 34, no.	0.1	4
39	Origin of the Red Shifts in the Optical Absorption Bands of Nonplanar Tetraalkylporphyrins. Journal of the American Chemical Society, 2003, 125, 1253-1268.	6.6	260
40	Unusual Arylâ^'Porphyrin Rotational Barriers in Peripherally Crowded Porphyrins. Inorganic Chemistry, 2003, 42, 2227-2241.	1.9	89
41	Photoinduced Axial Ligation and Deligation Dynamics of Nonplanar Nickel Dodecaarylporphyrins. Journal of the American Chemical Society, 2003, 125, 9787-9800.	6.6	60
42	Influence of Electronic and Structural Effects on the Oxidative Behavior of Nickel Porphyrins. Inorganic Chemistry, 2002, 41, 6673-6687.	1.9	98
43	First structural characterization of a covalently bonded porphyrinâ€“carborane system. Chemical Communications, 2001, , 483-484.	2.2	20
44	Effect ofMeso-Substituents on the Osmium Tetraoxide Reaction and Pinacolâ^'Pinacolone Rearrangement of the Correspondingvic-Dihydroxyporphyrins. Journal of Organic Chemistry, 2001, 66, 3930-3939.	1.7	63
45	Molecular Structures and Magnetic Resonance Spectroscopic Investigations of Highly Distorted Six-Coordinate Low-Spin Iron(III) Porphyrinate Complexes. Journal of the American Chemical Society, 2001, 123, 6564-6578.	6.6	72
46	Conformational and Electronic Effects of Phenyl-Ring Fluorination on the Photophysical Properties of Nonplanar Dodecaarylporphyrins. Journal of Physical Chemistry B, 2001, 105, 6396-6411.	1.2	49
47	Synthesis and characterization of a chiral nonplanar porphyrin. Chemical Communications, 2000, , 131-132.	2.2	16
48	Photoinduced Evolution on the Conformational Landscape of Nonplanar Dodecaphenylporphyrin:Â Picosecond Relaxation Dynamics in the1(Ï€,Ï€*) Excited State. Journal of Physical Chemistry B, 2000, 104, 6690-6693.	1.2	45
49	Novel dodecaarylporphyrins: synthesis and dynamic properties. Tetrahedron Letters, 1999, 40, 6159-6162.	0.7	27
50	Evidence for unusually strong intramolecular hydrogen bonding in highly nonplanar porphyrins. Chemical Communications, 1999, , 1221-1222.	2.2	31
51	Synthesis and unusual properties of the first 2,3,7,8,12,13,17,18-octabromo-5,10,15,20-tetraalkylporphyrin. Chemical Communications, 1999, , 2071-2072.	2.2	18
52	A New Method for Evaluating the Conformations and Normal Modes of Macromolecule Vibrations with a Reduced Force Field. 2. Application to Nonplanar Distorted Metal Porphyrins. Journal of Physical Chemistry B, 1999, 103, 10022-10031.	1.2	28
53	Synthesis and Electrochemical Studies of a Series of Fluorinated Dodecaphenylporphyrins. Inorganic Chemistry, 1999, 38, 2188-2198.	1.9	59
54	Novel products from bromination reactions of 5,10,15,20-tetraisopropylporphyrins. Chemical Communications, 1998, , 1687-1688.	2.2	15

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55	Picosecond to Microsecond Photodynamics of a Nonplanar Nickel Porphyrin:Â Solvent Dielectric and Temperature Effects. Journal of the American Chemical Society, 1998, 120, 3781-3791.	6.6	135
56	Substituent-Induced Perturbation Symmetries and Distortions ofmeso-tert-Butylporphyrins. Inorganic Chemistry, 1998, 37, 2117-2128.	1.9	53
57	Nonplanar porphyrins and their significance in proteins. Chemical Society Reviews, 1998, 27, 31.	18.7	789
58	Metal Dependence of the Contributions of Low-Frequency Normal Coordinates to the Sterically Induced Distortions of Meso-Dialkyl-Substituted Porphyrins. Inorganic Chemistry, 1998, 37, 2009-2019.	1.9	41
59	Raman dispersion spectroscopy on the highly saddled nickel(II)-octaethyltetraphenylporphyrin reveals the symmetry of nonplanar distortions and the vibronic coupling strength of normal modes. Journal of Chemical Physics, 1997, 107, 1794-1815.	1.2	39
60	Application of matrix-assisted laser desorption/ionization Fourier transform mass spectrometry to the analysis of planar porphyrins and highly substituted nonplanar porphyrins. European Journal of Mass Spectrometry, 1997, 3, 439.	0.7	13
61	NMR studies of nonplanar porphyrins. Part 1. Axial ligand orientations in highly nonplanar porphyrins. Journal of the Chemical Society Perkin Transactions II, 1997, , 833-838.	0.9	27
62	NMR studies of nonplanar porphyrins. Part 2. Effect of nonplanar conformational distortions on the porphyrin ring current. Journal of the Chemical Society Perkin Transactions II, 1997, , 839-844.	0.9	34
63	Variations and Temperature Dependence of the Excited State Properties of Conformationally and Electronically Perturbed Zinc and Free Base Porphyrins. Journal of Physical Chemistry B, 1997, 101, 1247-1254.	1.2	141
64	Synthesis, Photophysical Properties,in VivoPhotosensitizing Efficacy, and Human Serum Albumin Binding Properties of Some Novel Bacteriochlorins. Journal of Medicinal Chemistry, 1997, 40, 2770-2779.	2.9	96
65	Comparative Analysis of the Conformations of Symmetrically and Asymmetrically Deca- and Undecasubstituted Porphyrins Bearing Meso-Alkyl or -Aryl Groups. Inorganic Chemistry, 1997, 36, 1149-1163.	1.9	99
66	Pinacolâ˜Pinacolone Rearrangements invic-Dihydroxychlorins and Bacteriochlorins:Â Effect of Substituents at the Peripheral Positions. Journal of Organic Chemistry, 1997, 62, 1463-1472.	1.7	68
67	Representation of Nonplanar Structures of Nickel(II) 5,15-Disubstituted Porphyrins in Terms of Displacements along the Lowest-Frequency Normal Coordinates of the Macrocycle. Journal of the American Chemical Society, 1996, 118, 12975-12988.	6.6	87
68	Conformational Flexibility in Dodecasubstituted Porphyrins. Journal of the American Chemical Society, 1996, 118, 10918-10919.	6.6	131
69	Synthese und Charakterisierung von Bischlorinen â€“ McMurryâ€Reaktion von Formylchlorinen. Angewandte Chemie, 1996, 108, 1085-1087.	1.6	6
70	Synthesis and Characterization of Bis(chlorin)s from the McMurry Reaction of Formylchlorins. Angewandte Chemie International Edition in English, 1996, 35, 1013-1016.	4.4	50
71	Syntheses and unusual spectroscopic properties of novel ketobacteriopurpurins. Tetrahedron Letters, 1996, 37, 747-750.	0.7	10
72	Dynamic Photophysical Properties of Conformationally Distorted Nickel Porphyrins. 1. Nickel(II) Dodecaphenylporphyrin. The Journal of Physical Chemistry, 1996, 100, 11984-11993.	2.9	98

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73	Unusual picosecond 1(Ï€, Ï€â^—) deactivation of ruffled nonplanar porphyrins. Chemical Physics Letters, 1995, 245, 441-447.	1.2	96
74	Electrochemistry and Spectroelectrochemistry of .sigma.-Bonded Iron(III) Porphyrins with Nonplanar Porphyrin Rings. Reactions of (OETPP)Fe(R) and (OETPP)FeCl, Where R = C6H5, C6F4H, or C6F5 and OETPP Is the Dianion of 2,3,7,8,12,13,17,18-Octaethyl-5,10,15,20- tetraphenylporphyrin. Inorganic Chemistry, 1995, 34, 2984-2989.	1.9	53
75	Solution Conformations of Dodecasubstituted Cobalt(II) Porphyrins. Inorganic Chemistry, 1995, 34, 1333-1341.	1.9	32
76	Triplet Dynamics of Conformationally Distorted Porphyrins: Time-Resolved Electron Paramagnetic Resonance. The Journal of Physical Chemistry, 1994, 98, 2520-2526.	2.9	72
77	Photophysical Properties of Conformationally Distorted Metal-Free Porphyrins. Investigation into the Deactivation Mechanisms of the Lowest Excited Singlet State. Journal of the American Chemical Society, 1994, 116, 7363-7368.	6.6	200
78	Consequences of Oxidation in Nonplanar Porphyrins: Molecular Structure and Diamagnetism of the .pi. Cation Radical of Copper(II) Octaethyltetraphenylporphyrin. Journal of the American Chemical Society, 1994, 116, 8582-8592.	6.6	154
79	Photophysical studies of substituted porphyrins. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 1073.	1.7	42
80	Novel ligand orientations in pyridine and imidazole complexes of a highly substituted nonplanar porphyrin, and implications for the design of porphyrins as regio- and stereo-specific oxidation catalysts. Journal of the Chemical Society Chemical Communications, 1994, , 1843.	2.0	10
81	Magnetic Circular Dichroism Spectroscopic Studies on the Stereochemistry and Coordination Behavior of Nickel Porphyrins. Inorganic Chemistry, 1994, 33, 3873-3876.	1.9	18
82	Conformational Study of 2,3,5,7,8,12,13,15,17,18-Decaalkylporphyrins. Inorganic Chemistry, 1994, 33, 3865-3872.	1.9	42
83	First reversible electrogeneration of triply oxidized nickel porphyrins and porphycenes. Formation of nickel(III) .pi. dications. Inorganic Chemistry, 1993, 32, 4177-4178.	1.9	71
84	A planar dodecasubstituted porphyrin. Inorganic Chemistry, 1993, 32, 1716-1723.	1.9	69
85	Generation of a stable .sigma.-bonded iron(IV) porphyrin. Formation and reactivity of [(OETPP)FeIV(C6H5)]n+ (n = 1-3; OETPP = dianion of) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 257 Td (2,3,7,8,12,13,17,18-oct	6.6	71
86	Crystallographic and EXAFS studies of conformationally designed nonplanar nickel(II) porphyrins. Journal of the American Chemical Society, 1993, 115, 3627-3635.	6.6	177
87	Macrocycle and substituent vibrational modes of nonplanar nickel(II) octaethyltetraphenylporphyrin from its resonance Raman, near-infrared-excited FT Raman, and FT-IR spectra and deuterium isotope shifts. The Journal of Physical Chemistry, 1993, 97, 3701-3708.	2.9	28
88	Nonplanar distortion modes for highly substituted porphyrins. Journal of the American Chemical Society, 1992, 114, 9859-9869.	6.6	341
89	Very long-range isotope shifts in the proton NMR spectra of deuteriated haemins. Journal of the Chemical Society Chemical Communications, 1991, , 590.	2.0	10
90	Conformational analysis. Part 16 Conformational free energies in substituted piperidines and piperidinium salts. Journal of Computer-Aided Molecular Design, 1991, 5, 205-212.	1.3	9

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91	Syntheses, stability, and tumorcidal activity of porphyrin dimers and trimers with ether linkages. Tetrahedron Letters, 1990, 31, 7399-7402.	0.7	14
92	Efficient synthesis of porphyrin dimers with carbon-carbon linkages. Tetrahedron Letters, 1990, 31, 789-792.	0.7	47
93	Tetracycloalkenyl-meso-tetraphenylporphyrins as models for the effect of non-planarity on the light absorption properties of photosynthetic chromophores. Tetrahedron Letters, 1990, 31, 3719-3722.	0.7	113
94	The synthesis and solution conformation of dodecaphenylporphyrin. Tetrahedron Letters, 1990, 31, 5583-5586.	0.7	69
95	NMR spectra of the porphyrins. 38â€"Conformational analysis of azacycloheptane and azacyclooctane using a novel cobalt(III) porphyrin shift reagent. Magnetic Resonance in Chemistry, 1990, 28, 343-347.	1.1	11
96	A conformational study of diterpenoid lactones isolated from the chinese medicinal herb andrographis paniculata. Journal of the Chemical Society Perkin Transactions II, 1990, , 1011.	0.9	9
97	Nonplanar porphyrins. X-ray structures of (2,3,7,8,12,13,17,18-octaethyl- and) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 507 Td (112, 8851-8857.	6.6	352
98	NMR spectra of the porphyrins. 34â€"Determination of the conformational equilibria of monosubstituted piperidines at room temperature using cobalt(III) porphyrin shift reagents. Magnetic Resonance in Chemistry, 1988, 26, 334-344.	1.1	14
99	The NMR spectra of the porphyrins. 36â€"Ring currents in octaethylporphyrin,meso-tetraphenylporphyrin and phthalocyanine complexes. Magnetic Resonance in Chemistry, 1988, 26, 803-812.	1.1	28
100	Nuclear magnetic resonance spectra of porphyrins. Part 33. Ring currents in nickel(II) hydroporphyrins derived from anhydromesorhodoporphyrin XV. Journal of the Chemical Society Perkin Transactions II, 1988, , 1365.	0.9	3
101	Observation of piperidine conformational equilibria at room temperature using a cobalt(III) porphyrin shift reagent. Journal of the Chemical Society Chemical Communications, 1987, , 1637.	2.0	5
102	NMR spectra of porphyrins. Part 31. Ring currents in hydroporphyrins. Journal of the American Chemical Society, 1987, 109, 4786-4791.	6.6	23
103	NMR spectra of the porphyrins. 30â€"Calibration and application of a ring current model for cobalt(III)meso-tetraphenylporphyrin (CoTPP) complexes. Magnetic Resonance in Chemistry, 1987, 25, 432-438.	1.1	18
104	NMR spectra of the porphyrins 32â€"Conformational analysis of Pyrrolidine and 3-Hydroxypyrrolidine using CoIII meso-Tetraphenylporphyrin (CoTPP). Magnetic Resonance in Chemistry, 1987, 25, 790-797.	1.1	5