

# Craig John Medforth

## List of Publications by Year in descending order

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104  
papers

7,899  
citations

44069

48  
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48315

88  
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111  
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111  
docs citations

111  
times ranked

5974  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonplanar porphyrins and their significance in proteins. <i>Chemical Society Reviews</i> , 1998, 27, 31.	38.1	789
2	Porphyrin Nanotubes by Ionic Self-Assembly. <i>Journal of the American Chemical Society</i> , 2004, 126, 15954-15955.	13.7	407
3	Controlled Synthesis of 2-D and 3-D Dendritic Platinum Nanostructures. <i>Journal of the American Chemical Society</i> , 2004, 126, 635-645.	13.7	381
4	Nonplanar porphyrins. X-ray structures of (2,3,7,8,12,13,17,18-octaethyl- and ) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td (-octamethyl) 112, 8851-8857.	13.7	352
5	Nonplanar distortion modes for highly substituted porphyrins. <i>Journal of the American Chemical Society</i> , 1992, 114, 9859-9869.	13.7	341
6	Origin of the Red Shifts in the Optical Absorption Bands of Nonplanar Tetraalkylporphyrins. <i>Journal of the American Chemical Society</i> , 2003, 125, 1253-1268.	13.7	260
7	Self-assembled porphyrin nanostructures. <i>Chemical Communications</i> , 2009, , 7261.	4.1	252
8	Synthesis of peptide-nanotube platinum-nanoparticle composites. <i>Chemical Communications</i> , 2004, , 1044-1045.	4.1	208
9	Photophysical Properties of Conformationally Distorted Metal-Free Porphyrins. Investigation into the Deactivation Mechanisms of the Lowest Excited Singlet State. <i>Journal of the American Chemical Society</i> , 1994, 116, 7363-7368.	13.7	200
10	Self-Metallization of Photocatalytic Porphyrin Nanotubes. <i>Journal of the American Chemical Society</i> , 2004, 126, 16720-16721.	13.7	190
11	Crystallographic and EXAFS studies of conformationally designed nonplanar nickel(II) porphyrins. <i>Journal of the American Chemical Society</i> , 1993, 115, 3627-3635.	13.7	177
12	Self-Assembly and Self-Metallization of Porphyrin Nanosheets. <i>Journal of the American Chemical Society</i> , 2007, 129, 2440-2441.	13.7	173
13	Consequences of Oxidation in Nonplanar Porphyrins: Molecular Structure and Diamagnetism of the .pi. Cation Radical of Copper(II) Octaethyltetraphenylporphyrin. <i>Journal of the American Chemical Society</i> , 1994, 116, 8582-8592.	13.7	154
14	Variations and Temperature Dependence of the Excited State Properties of Conformationally and Electronically Perturbed Zinc and Free Base Porphyrins. <i>Journal of Physical Chemistry B</i> , 1997, 101, 1247-1254.	2.6	141
15	Picosecond to Microsecond Photodynamics of a Nonplanar Nickel Porphyrin: Solvent Dielectric and Temperature Effects. <i>Journal of the American Chemical Society</i> , 1998, 120, 3781-3791.	13.7	135
16	Conformational Flexibility in Dodecasubstituted Porphyrins. <i>Journal of the American Chemical Society</i> , 1996, 118, 10918-10919.	13.7	131
17	Cobalt <sup>II</sup> Porphyrin Catalyzed Electrochemical Reduction of Carbon Dioxide in Water. 2. Mechanism from First Principles. <i>Journal of Physical Chemistry A</i> , 2010, 114, 10174-10184.	2.5	130
18	Porphyrin Nanofiber Bundles from Phase-Transfer Ionic Self-Assembly and Their Photocatalytic Self-Metallization. <i>Advanced Materials</i> , 2006, 18, 2557-2560.	21.0	114

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19	Tetracycloalkenyl-meso-tetraphenylporphyrins as models for the effect of non-planarity on the light absorption properties of photosynthetic chromophores. <i>Tetrahedron Letters</i> , 1990, 31, 3719-3722.	1.4	113
20	Donor-acceptor Biomorphs from the Ionic Self-Assembly of Porphyrins. <i>Journal of the American Chemical Society</i> , 2010, 132, 8194-8201.	13.7	111
21	Energetics and Structural Consequences of Axial Ligand Coordination in Nonplanar Nickel Porphyrins. <i>Journal of the American Chemical Society</i> , 2005, 127, 1179-1192.	13.7	100
22	Density Functional Theory and DFT+U Study of Transition Metal Porphines Adsorbed on Au(111) Surfaces and Effects of Applied Electric Fields. <i>Journal of the American Chemical Society</i> , 2006, 128, 3659-3668.	13.7	100
23	Comparative Analysis of the Conformations of Symmetrically and Asymmetrically Deca- and Undecasubstituted Porphyrins Bearing Meso-Alkyl or -Aryl Groups. <i>Inorganic Chemistry</i> , 1997, 36, 1149-1163.	4.0	99
24	Dynamic Photophysical Properties of Conformationally Distorted Nickel Porphyrins. 1. Nickel(II) Dodecaphenylporphyrin. <i>The Journal of Physical Chemistry</i> , 1996, 100, 11984-11993.	2.9	98
25	Influence of Electronic and Structural Effects on the Oxidative Behavior of Nickel Porphyrins. <i>Inorganic Chemistry</i> , 2002, 41, 6673-6687.	4.0	98
26	Unusual picosecond ( $\text{f} \rightarrow \text{g}$ ) deactivation of ruffled nonplanar porphyrins. <i>Chemical Physics Letters</i> , 1995, 245, 441-447.	2.6	96
27	Synthesis, Photophysical Properties, in Vivo Photosensitizing Efficacy, and Human Serum Albumin Binding Properties of Some Novel Bacteriochlorins. <i>Journal of Medicinal Chemistry</i> , 1997, 40, 2770-2779.	6.4	96
28	Unusual Aryl- $\pi$ Porphyrin Rotational Barriers in Peripherally Crowded Porphyrins. <i>Inorganic Chemistry</i> , 2003, 42, 2227-2241.	4.0	89
29	Foamlike Nanostructures Created from Dendritic Platinum Sheets on Liposomes. <i>Chemistry of Materials</i> , 2006, 18, 2335-2346.	6.7	88
30	Representation of Nonplanar Structures of Nickel(II) 5,15-Disubstituted Porphyrins in Terms of Displacements along the Lowest-Frequency Normal Coordinates of the Macrocycle. <i>Journal of the American Chemical Society</i> , 1996, 118, 12975-12988.	13.7	87
31	Triplet Dynamics of Conformationally Distorted Porphyrins: Time-Resolved Electron Paramagnetic Resonance. <i>The Journal of Physical Chemistry</i> , 1994, 98, 2520-2526.	2.9	72
32	Molecular Structures and Magnetic Resonance Spectroscopic Investigations of Highly Distorted Six-Coordinate Low-Spin Iron(III) Porphyrinate Complexes. <i>Journal of the American Chemical Society</i> , 2001, 123, 6564-6578.	13.7	72
33	First reversible electrogeneration of triply oxidized nickel porphyrins and porphycenes. Formation of nickel(III) $\pi$ -dications. <i>Inorganic Chemistry</i> , 1993, 32, 4177-4178.	4.0	71
34	The synthesis and solution conformation of dodecaphenylporphyrin. <i>Tetrahedron Letters</i> , 1990, 31, 5583-5586.	1.4	69
35	A planar dodecasubstituted porphyrin. <i>Inorganic Chemistry</i> , 1993, 32, 1716-1723.	4.0	69
36	Pinacol- $\pi$ Pinacolone Rearrangements in vic-Dihydroxychlorins and Bacteriochlorins: Effect of Substituents at the Peripheral Positions. <i>Journal of Organic Chemistry</i> , 1997, 62, 1463-1472.	3.2	68

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37	Effect of Meso-Substituents on the Osmium Tetraoxide Reaction and Pinacol-Pinacolone Rearrangement of the Corresponding vic-Dihydroxyporphyrins. <i>Journal of Organic Chemistry</i> , 2001, 66, 3930-3939.	3.2	63
38	Photoinduced Axial Ligation and Deligation Dynamics of Nonplanar Nickel Dodecaarylporphyrins. <i>Journal of the American Chemical Society</i> , 2003, 125, 9787-9800.	13.7	60
39	Synthesis and Electrochemical Studies of a Series of Fluorinated Dodecaphenylporphyrins. <i>Inorganic Chemistry</i> , 1999, 38, 2188-2198.	4.0	59
40	Impact of Substituents and Nonplanarity on Nickel and Copper Porphyrin Electrochemistry: First Observation of a $\text{Cu}^{\text{II}}/\text{Cu}^{\text{III}}$ Reaction in Nonaqueous Media. <i>Inorganic Chemistry</i> , 2014, 53, 10772-10778.	4.0	57
41	Interfacial Synthesis of Dendritic Platinum Nanoshells Templated on Benzene Nanodroplets Stabilized in Water by a Photocatalytic Lipoporphyrin. <i>Journal of the American Chemical Society</i> , 2006, 128, 9284-9285.	13.7	55
42	Morphological families of self-assembled porphyrin structures and their photosensitization of hydrogen generation. <i>Chemical Communications</i> , 2011, 47, 6069.	4.1	55
43	Monodisperse porphyrin nanospheres synthesized by coordination polymerization. <i>Nanotechnology</i> , 2008, 19, 395604.	2.6	54
44	Electrochemistry and Spectroelectrochemistry of $\sigma$ -Bonded Iron(III) Porphyrins with Nonplanar Porphyrin Rings. Reactions of (OETPP)Fe(R) and (OETPP)FeCl, Where R = C <sub>6</sub> H <sub>5</sub> , C <sub>6</sub> F <sub>4</sub> H, or C <sub>6</sub> F <sub>5</sub> and OETPP is the Dianion of 2,3,7,8,12,13,17,18-Octaethyl-5,10,15,20-tetraphenylporphyrin. <i>Inorganic Chemistry</i> , 1995, 34, 2984-2989.	4.0	53
45	Substituent-Induced Perturbation Symmetries and Distortions of meso-tert-Butylporphyrins. <i>Inorganic Chemistry</i> , 1998, 37, 2117-2128.	4.0	53
46	Synthesis and Characterization of Bis(chlorin)s from the McMurry Reaction of Formylchlorins. <i>Angewandte Chemie International Edition in English</i> , 1996, 35, 1013-1016.	4.4	50
47	Conformational and Electronic Effects of Phenyl-Ring Fluorination on the Photophysical Properties of Nonplanar Dodecaarylporphyrins. <i>Journal of Physical Chemistry B</i> , 2001, 105, 6396-6411.	2.6	49
48	Binary ionic porphyrin nanosheets: electronic and light-harvesting properties regulated by crystal structure. <i>Nanoscale</i> , 2012, 4, 1695.	5.6	49
49	Efficient synthesis of porphyrin dimers with carbon-carbon linkages. <i>Tetrahedron Letters</i> , 1990, 31, 789-792.	1.4	47
50	Photoinduced Evolution on the Conformational Landscape of Nonplanar Dodecaphenylporphyrin: Picosecond Relaxation Dynamics in the $^1(\text{F}, \text{F}^*)$ Excited State. <i>Journal of Physical Chemistry B</i> , 2000, 104, 6690-6693.	2.6	45
51	Photophysical studies of substituted porphyrins. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1994, 90, 1073.	1.7	42
52	Conformational Study of 2,3,5,7,8,12,13,15,17,18-Decaalkylporphyrins. <i>Inorganic Chemistry</i> , 1994, 33, 3865-3872.	4.0	42
53	Metal Dependence of the Contributions of Low-Frequency Normal Coordinates to the Sterically Induced Distortions of Meso-Dialkyl-Substituted Porphyrins. <i>Inorganic Chemistry</i> , 1998, 37, 2009-2019.	4.0	41
54	Raman dispersion spectroscopy on the highly saddled nickel(II)-octaethyltetraphenylporphyrin reveals the symmetry of nonplanar distortions and the vibronic coupling strength of normal modes. <i>Journal of Chemical Physics</i> , 1997, 107, 1794-1815.	3.0	39

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55	Nonplanar Heme Deformations and Excited State Displacements in Nickel Porphyrins Detected by Raman Spectroscopy at Soret Excitation. <i>Journal of Physical Chemistry A</i> , 2005, 109, 10493-10502.	2.5	39
56	Molecular organization in self-assembled binary porphyrin nanotubes revealed by resonance Raman spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 4072.	2.8	38
57	Evolution of Dendritic Platinum Nanosheets into Ripening-Resistant Holey Sheets. <i>Nano Letters</i> , 2009, 9, 1534-1539.	9.1	37
58	Templated growth of platinum nanowheels using the inhomogeneous reaction environment of bicelles. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 4846-4852.	2.8	37
59	Iron(III) Fluorinated Porphyrins: Greener Chemistry from Synthesis to Oxidative Catalysis Reactions. <i>Molecules</i> , 2016, 21, 481.	3.8	35
60	NMR studies of nonplanar porphyrins. Part 2. Effect of nonplanar conformational distortions on the porphyrin ring current. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1997, , 839-844.	0.9	34
61	Solution Conformations of Dodecasubstituted Cobalt(II) Porphyrins. <i>Inorganic Chemistry</i> , 1995, 34, 1333-1341.	4.0	32
62	Evidence for unusually strong intramolecular hydrogen bonding in highly nonplanar porphyrins. <i>Chemical Communications</i> , 1999, , 1221-1222.	4.1	31
63	Hierarchical cooperative binary ionic porphyrin nanocomposites. <i>Chemical Communications</i> , 2012, 48, 4863.	4.1	30
64	The NMR spectra of the porphyrins. 36 Ring currents in octaethylporphyrin, meso-tetraphenylporphyrin and phthalocyanine complexes. <i>Magnetic Resonance in Chemistry</i> , 1988, 26, 803-812.	1.9	28
65	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. <i>The Journal of Physical Chemistry</i> , 1993, 97, 3701-3708.	2.9	28
66	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. <i>Journal of Physical Chemistry B</i> , 1999, 103, 10022-10031.	2.6	28
67	NMR studies of nonplanar porphyrins. Part 1. Axial ligand orientations in highly nonplanar porphyrins. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1997, , 833-838.	0.9	27
68	Novel dodecaarylporphyrins: synthesis and dynamic properties. <i>Tetrahedron Letters</i> , 1999, 40, 6159-6162.	1.4	27
69	NMR spectra of porphyrins. Part 31. Ring currents in hydroporphyrins. <i>Journal of the American Chemical Society</i> , 1987, 109, 4786-4791.	13.7	23
70	Silica Metal Core Shells and Metal Shells Synthesized by Porphyrin-Assisted Photocatalysis. <i>Chemistry of Materials</i> , 2008, 20, 7434-7439.	6.7	23
71	Charge Effects on the Structure and Composition of Porphyrin Binary Ionic Solids: ZnTPPS/SnTMePyP Nanomaterials. <i>Chemistry of Materials</i> , 2013, 25, 441-447.	6.7	22
72	Generation of a stable sigma-bonded iron(IV) porphyrin. Formation and reactivity of [(OETPP)Fe(IV)(C6H5)] <sup>n+</sup> (n = 1-3; OETPP = dianion of Tj ETQqO O rgBT /Overlock 10 Tf 50 57 Td (2,3,7,8,12,13,17,18-octaethyl-5,10,15,20-tetraethyl-5,10,15,20-tetraphenylporphyrin))	17.1	21

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73	First structural characterization of a covalently bonded porphyrin-carborane system. <i>Chemical Communications</i> , 2001, , 483-484.	4.1	20
74	NMR spectra of the porphyrins. <sup>30</sup> Calibration and application of a ring current model for cobalt(III)meso-tetraphenylporphyrin (CoTPP) complexes. <i>Magnetic Resonance in Chemistry</i> , 1987, 25, 432-438.	1.9	18
75	Magnetic Circular Dichroism Spectroscopic Studies on the Stereochemistry and Coordination Behavior of Nickel Porphyrins. <i>Inorganic Chemistry</i> , 1994, 33, 3873-3876.	4.0	18
76	Synthesis and unusual properties of the first 2,3,7,8,12,13,17,18-octabromo-5,10,15,20-tetraalkylporphyrin. <i>Chemical Communications</i> , 1999, , 2071-2072.	4.1	18
77	Synthesis and characterization of a chiral nonplanar porphyrin. <i>Chemical Communications</i> , 2000, , 131-132.	4.1	16
78	Novel products from bromination reactions of 5,10,15,20-tetraisopropylporphyrins. <i>Chemical Communications</i> , 1998, , 1687-1688.	4.1	15
79	NMR spectra of the porphyrins. <sup>34</sup> Determination of the conformational equilibria of monosubstituted piperidines at room temperature using cobalt(III) porphyrin shift reagents. <i>Magnetic Resonance in Chemistry</i> , 1988, 26, 334-344.	1.9	14
80	Syntheses, stability, and tumorcidal activity of porphyrin dimers and trimers with ether linkages. <i>Tetrahedron Letters</i> , 1990, 31, 7399-7402.	1.4	14
81	Application of matrix-assisted laser desorption/ionization Fourier transform mass spectrometry to the analysis of planar porphyrins and highly substituted nonplanar porphyrins. <i>European Journal of Mass Spectrometry</i> , 1997, 3, 439.	0.7	13
82	Ab initio molecular dynamics study of manganese porphine hydration and interaction with nitric oxide. <i>Journal of Chemical Physics</i> , 2007, 126, 024501.	3.0	12
83	NMR spectra of the porphyrins. <sup>38</sup> Conformational analysis of azacycloheptane and azacyclooctane using a novel cobalt(III) porphyrin shift reagent. <i>Magnetic Resonance in Chemistry</i> , 1990, 28, 343-347.	1.9	11
84	A Green and Versatile Route to Highly Functionalized Benzofuran Derivatives Using Biomimetic Oxygenation. <i>ChemistrySelect</i> , 2018, 3, 1392-1403.	1.5	11
85	Very long-range isotope shifts in the proton NMR spectra of deuteriated haemins. <i>Journal of the Chemical Society Chemical Communications</i> , 1991, , 590.	2.0	10
86	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. <i>Journal of the Chemical Society Chemical Communications</i> , 1994, , 1843.	2.0	10
87	Syntheses and unusual spectroscopic properties of novel ketobacteriopurpurins. <i>Tetrahedron Letters</i> , 1996, 37, 747-750.	1.4	10
88	A conformational study of diterpenoid lactones isolated from the chinese medicinal herb <i>andrographis paniculata</i> . <i>Journal of the Chemical Society Perkin Transactions II</i> , 1990, , 1011.	0.9	9
89	Conformational analysis. Part 16 Conformational free energies in substituted piperidines and piperidinium salts. <i>Journal of Computer-Aided Molecular Design</i> , 1991, 5, 205-212.	2.9	9
90	Synthesis and nanostructures of 5,10,15,20-tetrakis(4-piperidyl)porphyrin. <i>Tetrahedron</i> , 2013, 69, 10507-10515.	1.9	9

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91	Ionic self-assembly reactions of a porphyrin octacation. <i>Tetrahedron</i> , 2016, 72, 6988-6995.	1.9	8
92	EPR spin trapping studies of H <sub>2</sub> O <sub>2</sub> activation in metaloporphyrin catalyzed oxygenation reactions: Insights on the biomimetic mechanism. <i>Molecular Catalysis</i> , 2019, 475, 110500.	2.0	7
93	Biomimetic Oxidation of Benzofurans with Hydrogen Peroxide Catalyzed by Mn(III) Porphyrins. <i>Catalysts</i> , 2020, 10, 62.	3.5	7
94	Protonation of Planar and Nonplanar Porphyrins: A Calorimetric and Computational Study. <i>Journal of Physical Chemistry A</i> , 2020, 124, 8994-9003.	2.5	7
95	Synthese und Charakterisierung von Bischlorinen â€œ McMurryâ€™s Reaktion von Formylchlorinen. <i>Angewandte Chemie</i> , 1996, 108, 1085-1087.	2.0	6
96	Determination of the activation energies for ND tautomerism and anion exchange in a porphyrin monocation. <i>Journal of Porphyrins and Phthalocyanines</i> , 2016, 20, 307-317.	0.8	6
97	Binary ionic iron(III) porphyrin nanostructured materials with catalase-like activity. <i>Applied Materials Today</i> , 2020, 21, 100830.	4.3	6
98	Observation of piperidine conformational equilibria at room temperature using a cobalt(III) porphyrin shift reagent. <i>Journal of the Chemical Society Chemical Communications</i> , 1987, , 1637.	2.0	5
99	NMR spectra of the porphyrins 32â€™ Conformational analysis of Pyrrolidine and 3-Hydroxypyrrolidine using CoIII meso-Tetraphenylporphyrin (CoTPP). <i>Magnetic Resonance in Chemistry</i> , 1987, 25, 790-797.	1.9	5
100	NMR Spectroscopy of Diamagnetic Porphyrins. <i>ChemInform</i> , 2003, 34, no.	0.0	4
101	Steric bulkiness of pyrrole substituents and the out-of-plane deformations of porphyrins: nickel(II) octaisopropylporphyrin and its <i>meso</i> -nitro derivative. <i>Journal of Porphyrins and Phthalocyanines</i> , 2011, 15, 727-741.	0.8	4
102	Nuclear magnetic resonance spectra of porphyrins. Part 33. Ring currents in nickel(II) hydroporphyrins derived from anhydromesorhodoporphyrin XV. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1988, , 1365.	0.9	3
103	Binary Ionic Porphyrin Nanomaterials for Energy from Sunlight. <i>Handbook of Porphyrin Science</i> , 2013, , 227-277.	0.8	3
104	Nanoparticles as template for porphyrin nanostructure growth. <i>Journal of Porphyrins and Phthalocyanines</i> , 2019, 23, 526-533.	0.8	3