

Atif Mahammed

List of Publications by Year in descending order

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93
papers

5,269
citations

71102

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88630

70
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101
all docs

101
docs citations

101
times ranked

2848
citing authors

#	ARTICLE	IF	CITATIONS
1	Albumin-Conjugated Corrole Metal Complexes: An Extremely Simple Yet Very Efficient Biomimetic Oxidation Systems. <i>Journal of the American Chemical Society</i> , 2005, 127, 2883-2887.	13.7	279
2	Synthesis and Characterization of Germanium, Tin, Phosphorus, Iron, and Rhodium Complexes of Tris(pentafluorophenyl)corrole, and the Utilization of the Iron and Rhodium Corroles as Cyclopropanation Catalysts. <i>Chemistry - A European Journal</i> , 2001, 7, 1041-1055.	3.3	268
3	Reduction of Cobalt and Iron Corroles and Catalyzed Reduction of CO ₂ . <i>Journal of Physical Chemistry A</i> , 2002, 106, 4772-4778.	2.5	207
4	High-Valent Manganese Corroles and the First Perhalogenated Metalloporphyrin Catalyst. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2132-2134.	13.8	194
5	Cobalt Corrole Catalyst for Efficient Hydrogen Evolution Reaction from H ₂ O under Ambient Conditions: Reactivity, Spectroscopy, and Density Functional Theory Calculations. <i>Inorganic Chemistry</i> , 2013, 52, 3381-3387.	4.0	167
6	Structural, Electrochemical, and Photophysical Properties of Gallium(III) 5,10,15-Tris(pentafluorophenyl)corrole. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 4048-4051.	13.8	165
7	Tumor detection and elimination by a targeted gallium corrole. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6105-6110.	7.1	162
8	Amphiphilic Corroles Bind Tightly to Human Serum Albumin. <i>Bioconjugate Chemistry</i> , 2004, 15, 738-746.	3.6	157
9	Selective Substitution of Corroles: Nitration, Hydroformylation, and Chlorosulfonation. <i>Journal of the American Chemical Society</i> , 2002, 124, 7411-7420.	13.7	156
10	The cobalt corrole catalyzed hydrogen evolution reaction: surprising electronic effects and characterization of key reaction intermediates. <i>Chemical Communications</i> , 2014, 50, 2725-2727.	4.1	134
11	Metalloporphyrins as Nonprecious Metal Catalysts for Oxygen Reduction. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14080-14084.	13.8	128
12	Synthesis and Structural Characterization of a Novel Covalently-Bound Corrole Dimer. <i>Chemistry - A European Journal</i> , 2001, 7, 4259-4265.	3.3	124
13	Aerobic Oxidations Catalyzed by Chromium Corroles. <i>Journal of the American Chemical Society</i> , 2003, 125, 1162-1163.	13.7	120
14	Four-Electron Oxygen Reduction by Brominated Cobalt Corrole. <i>Inorganic Chemistry</i> , 2012, 51, 22-24.	4.0	105
15	Specific Delivery of Corroles to Cells via Noncovalent Conjugates with Viral Proteins. <i>Pharmaceutical Research</i> , 2006, 23, 367-377.	3.5	101
16	Highly Selective Chlorosulfonation of Tris(pentafluorophenyl)corrole as a Synthetic Tool for the Preparation of Amphiphilic Corroles and Metal Complexes of Planar Chirality. <i>Organic Letters</i> , 2001, 3, 3443-3446.	4.6	98
17	Chromium Corroles in Four Oxidation States. <i>Inorganic Chemistry</i> , 2001, 40, 6788-6793.	4.0	94
18	Iron and Manganese Corroles Are Potent Catalysts for the Decomposition of Peroxynitrite. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 6544-6547.	13.8	91

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19	Aluminum corrolin, a novel chlorophyll analogue. <i>Journal of Inorganic Biochemistry</i> , 2002, 88, 305-309.	3.5	87
20	Photodynamic inactivation of mold fungi spores by newly developed charged corroles. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2014, 133, 39-46.	3.8	85
21	Corrole-sensitized TiO_2 solar cells. <i>Journal of Porphyrins and Phthalocyanines</i> , 2006, 10, 1259-1262.	0.8	84
22	Corroles as triplet photosensitizers. <i>Coordination Chemistry Reviews</i> , 2019, 379, 121-132.	18.8	81
23	Metalloporroles as cytoprotective agents against oxidative and nitrative stress in cellular models of neurodegeneration. <i>Journal of Neurochemistry</i> , 2010, 113, 363-373.	3.9	78
24	High-resolution NMR spectroscopic trends and assignment rules of metal-free, metallated and substituted corroles. <i>Magnetic Resonance in Chemistry</i> , 2004, 42, 624-635.	1.9	72
25	Amphiphilic/Bipolar Metalloporroles That Catalyze the Decomposition of Reactive Oxygen and Nitrogen Species, Rescue Lipoproteins from Oxidative Damage, and Attenuate Atherosclerosis in Mice. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 7896-7900.	13.8	72
26	Neuroprotection against superoxide anion radical by metalloporroles in cellular and murine models of optic neuropathy. <i>Journal of Neurochemistry</i> , 2010, 114, 488-498.	3.9	72
27	How acidic are corroles and why?. <i>Tetrahedron Letters</i> , 2003, 44, 2077-2079.	1.4	69
28	Differential Cytostatic and Cytotoxic Action of Metalloporroles against Human Cancer Cells: Potential Platforms for Anticancer Drug Development. <i>Chemical Research in Toxicology</i> , 2012, 25, 400-409.	3.3	63
29	Photophysics of Soret-excited tetrapyrroles in solution. III. Porphyrin analogues: Aluminum and gallium corroles. <i>Chemical Physics Letters</i> , 2008, 459, 113-118.	2.6	60
30	Ground- and Excited-State Dynamics of Aluminum and Gallium Corroles. <i>Inorganic Chemistry</i> , 2009, 48, 2670-2676.	4.0	59
31	Superoxide dismutase activity of corrole metal complexes. <i>Dalton Transactions</i> , 2009, , 7879.	3.3	59
32	Highly efficient catalase activity of metalloporroles. <i>Chemical Communications</i> , 2010, 46, 7040.	4.1	55
33	Metalloporroles as Non-Precious Metal Electrocatalysts for Highly Efficient Oxygen Reduction in Alkaline Media. <i>ChemCatChem</i> , 2016, 8, 2832-2837.	3.7	52
34	Water Oxidation Catalysis by Mono- and Binuclear Iron Corroles. <i>ACS Catalysis</i> , 2020, 10, 3764-3772.	11.2	49
35	Structures and Reactivity Patterns of Group 9 Metalloporroles. <i>Inorganic Chemistry</i> , 2009, 48, 9308-9315.	4.0	48
36	Phosphorus corrole complexes: from property tuning to applications in photocatalysis and triplet-triplet annihilation upconversion. <i>Chemical Science</i> , 2019, 10, 7091-7103.	7.4	48

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37	Reactive Intermediates Involved in Cobalt Corrole Catalyzed Water Oxidation (and Oxygen Reduction). <i>Inorganic Chemistry</i> , 2018, 57, 478-485.	4.0	44
38	A catalytic antioxidant for limiting amyloid-beta peptide aggregation and reactive oxygen species generation. <i>Chemical Science</i> , 2019, 10, 1634-1643.	7.4	44
39	Elucidation of Factors That Govern the $2e^-/2H^+$ vs $4e^-/4H^+$ Selectivity of Water Oxidation by a Cobalt Corrole. <i>Journal of the American Chemical Society</i> , 2020, 142, 21040-21049.	13.7	44
40	Metallocorroles as Photocatalysts for Driving Endergonic Reactions, Exemplified by Bromide to Bromine Conversion. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12370-12373.	13.8	43
41	The importance of developing metal complexes with pronounced catalase-like activity. <i>Catalysis Science and Technology</i> , 2011, 1, 535.	4.1	40
42	Effect of bromination on the electrochemistry, frontier orbitals, and spectroscopy of metallocorroles. <i>Journal of Porphyrins and Phthalocyanines</i> , 2011, 15, 1275-1286.	0.8	39
43	Covalent versus non-covalent (biocatalytic) approaches for enantioselective sulfoxidation catalyzed by corrole metal complexes. <i>Catalysis Science and Technology</i> , 2011, 1, 578.	4.1	39
44	Chlorinated corroles. <i>Dalton Transactions</i> , 2012, 41, 10938.	3.3	39
45	Metallocorroles as Electrocatalysts for the Oxygen Reduction Reaction (ORR). <i>Israel Journal of Chemistry</i> , 2016, 56, 756-762.	2.3	38
46	Selective sulfonation and deuteration of free-base corroles. <i>Journal of Porphyrins and Phthalocyanines</i> , 2002, 06, 553-555.	0.8	30
47	Electron Spin Dynamics in Photoexcited Diamagnetic and Paramagnetic Corroles. <i>Journal of the American Chemical Society</i> , 2004, 126, 6886-6890.	13.7	29
48	Photoexcited Triplet State Properties of Brominated and Nonbrominated Ga(III)-Corroles as Studied by Time-Resolved Electron Paramagnetic Resonance. <i>Journal of Physical Chemistry B</i> , 2010, 114, 14303-14308.	2.6	29
49	Copper Complexes of CF_3 -Substituted Corroles for Affecting Redox Potentials and Electrocatalysis. <i>ACS Applied Energy Materials</i> , 2020, 3, 2828-2836.	5.1	29
50	Hydrogen Evolution Catalyzed by Corrole-Chelated Nickel Complexes, Characterized in all Catalysis-Relevant Oxidation States. <i>ACS Catalysis</i> , 2022, 12, 4310-4317.	11.2	29
51	Understanding and predicting the potency of ROS-based enzyme inhibitors, exemplified by naphthoquinones and ubiquitin specific protease-2. <i>Chemical Science</i> , 2016, 7, 7079-7086.	7.4	28
52	Trifluoromethylation for affecting the structural, electronic and redox properties of cobalt corroles. <i>Dalton Transactions</i> , 2019, 48, 4798-4810.	3.3	28
53	Nitrogen Insertion into a Corrole Ring: Iridium Monoazaporphyrins. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 9433-9436.	13.8	27
54	Maximizing Property Tuning of Phosphorus Corrole Photocatalysts through a Trifluoromethylation Approach. <i>Inorganic Chemistry</i> , 2019, 58, 6184-6198.	4.0	27

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55	Investigating photoexcitation-induced mitochondrial damage by chemotherapeutic corroles using multimode optical imaging. <i>Journal of Biomedical Optics</i> , 2012, 17, 015003.	2.6	26
56	Iron complexes of tris(4-nitrophenyl)corrole, with emphasis on the (nitrosyl)iron complex. <i>Journal of Porphyrins and Phthalocyanines</i> , 2012, 16, 663-673.	0.8	24
57	Combating diabetes complications by 1-Fe, a corrole-based catalytic antioxidant. <i>Journal of Diabetes and Its Complications</i> , 2013, 27, 316-321.	2.3	24
58	Dioxygen bound cobalt corroles. <i>Chemical Communications</i> , 2017, 53, 877-880.	4.1	24
59	Positive shift in corrole redox potentials leveraged by modest $\text{I}^2\text{-CF}_3$ -substitution helps achieve efficient photocatalytic C-H bond functionalization by group 13 complexes. <i>Dalton Transactions</i> , 2019, 48, 12279-12286.	3.3	24
60	Novel reactivities of iodosylbenzene in the catalytic oxygenation of olefins. <i>Journal of Molecular Catalysis A</i> , 1999, 142, 367-372.	4.8	23
61	Amphiphilic aluminium(III) and gallium(III) corroles. <i>Journal of Porphyrins and Phthalocyanines</i> , 2007, 11, 189-197.	0.8	23
62	Corroles and corrole/transferrin nanoconjugates as candidates for sonodynamic therapy. <i>Chemical Communications</i> , 2019, 55, 12789-12792.	4.1	23
63	Assignment of Aluminum Corroles Absorption Bands to Electronic Transitions by Femtosecond Polarization Resolved VIS-Pump IR-Probe Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2012, 116, 1023-1029.	2.5	21
64	Superoxide signaling and cell death in retinal ganglion cell axotomy: Effects of metallocorroles. <i>Experimental Eye Research</i> , 2012, 97, 31-35.	2.6	21
65	In vitro photodynamic inactivation (PDI) of pathogenic germs inducing onychomycosis. <i>Photodiagnosis and Photodynamic Therapy</i> , 2018, 24, 358-365.	2.6	20
66	Ultrafast Dynamics of Sb-Corroles: A Combined Vis-Pump Supercontinuum Probe and Broadband Fluorescence Up-Conversion Study. <i>Molecules</i> , 2017, 22, 1174.	3.8	19
67	Oxidation catalysis via visible-light water activation of a $[\text{Ru}(\text{bpy})_3]^{2+}$ chromophore BSA-metallocorrole couple. <i>Dalton Transactions</i> , 2016, 45, 706-710.	3.3	18
68	Expected and Unexpected Transformations of Manganese(III) Tris(4-nitrophenyl)corrole. <i>Inorganic Chemistry</i> , 2013, 52, 9349-9355.	4.0	17
69	Superstructured metallocorroles for electrochemical CO_2 reduction. <i>Chemical Communications</i> , 2019, 55, 11912-11915.	4.1	16
70	Trifluoromethyl Hydrolysis En Route to Corroles with Increased Druglikeness. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12829-12834.	13.8	16
71	Chlorosulfonated corrole: a versatile synthon for advanced materials. <i>Journal of Porphyrins and Phthalocyanines</i> , 2010, 14, 911-923.	0.8	15
72	Neurorescue by a ROS Decomposition Catalyst. <i>ACS Chemical Neuroscience</i> , 2016, 7, 1374-1382.	3.5	15

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73	Controllable and stable organometallic redox mediators for lithium oxygen batteries. <i>Materials Horizons</i> , 2020, 7, 214-222.	12.2	15
74	Enhanced Synthetic Access to Tris-CF ₃ -Substituted Corroles. <i>Organic Letters</i> , 2020, 22, 3119-3122.	4.6	15
75	Hydrogen evolution catalysis by terminal molybdenum-oxo complexes. <i>IScience</i> , 2021, 24, 102924.	4.1	14
76	Singlet oxygen luminescence kinetics under PDI relevant conditions of pathogenic dermatophytes and molds. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2018, 178, 606-613.	3.8	13
77	Photometric Detection of Nitric Oxide Using a Dissolved Iron(III) Corrole as a Sensitizer. <i>ChemPlusChem</i> , 2016, 81, 594-603.	2.8	12
78	Switching Futile <i>para</i> -Quinone to Efficient Reactive Oxygen Species Generator: Ubiquitin-Specific Protease ² Inhibition, Electrocatalysis, and Quantification. <i>ChemBioChem</i> , 2017, 18, 1683-1687.	2.6	12
79	Corroles: The Hitherto Elusive Parent Macrocycle and its Metal Complexes. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 25097-25103.	13.8	12
80	One-Pot Synthesis of Dihalo(porphyrinato)osmium(IV) Complexes. Evidence for Monohalo(carbonyl)osmium(III) Intermediates. <i>Inorganic Chemistry</i> , 1996, 35, 7260-7263.	4.0	11
81	Metalloporroles as Photocatalysts for Driving Endergonic Reactions, Exemplified by Bromide to Bromine Conversion. <i>Angewandte Chemie</i> , 2015, 127, 12547-12550.	2.0	10
82	Corrole-Decorated Porphyrin Dendrimer and Its Selective Metallation. <i>European Journal of Organic Chemistry</i> , 2015, 2015, 5079-5083.	2.4	10
83	Development of Singlet Oxygen Luminescence Kinetics during the Photodynamic Inactivation of Green Algae. <i>Molecules</i> , 2016, 21, 485.	3.8	9
84	Solvent Effects on the Phosphorescence of Gold(III) Complexes Chelated by $\hat{\nu}^2$ -Multisubstituted Corroles. <i>Inorganic Chemistry</i> , 2021, 60, 8442-8446.	4.0	9
85	Iodinated cobalt corroles. <i>Journal of Porphyrins and Phthalocyanines</i> , 2017, 21, 900-907.	0.8	8
86	Dimeric Corrole Analogs of Chlorophyll Special Pairs. <i>Journal of the American Chemical Society</i> , 2021, 143, 9450-9460.	13.7	8
87	High-Valent Manganese Corroles and the First Perhalogenated Metalloporrole Catalyst This research (No. 368/00) was supported by the Israel Science Foundation (Z.G.), the US National Science Foundation (H.B.G.), and the Fund for the Promotion of Research at the Technion (Z.G.). <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2132-2134.	13.8	8
88	Chemiluminescence enhancement and energy transfer by the aluminium(III) complex of an amphiphilic/bipolar and cell-penetrating corrole. <i>Dalton Transactions</i> , 2010, 39, 2998-3000.	3.3	6
89	Trifluoromethyl Hydrolysis En Route to Corroles with Increased Druglikeness. <i>Angewandte Chemie</i> , 2021, 133, 12939-12944.	2.0	6
90	Molecular complexes between octaethyltetrathiaporphyrin dication and electron donors: A spectroscopic and electrochemical study. <i>Journal of Physical Organic Chemistry</i> , 1995, 8, 647-658.	1.9	4

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91	Orthogonal Design of Fe ^{IV} Active Sites and Hierarchical Porosity in Hydrazine Oxidation Electrocatalysts. ChemElectroChem, 2022, 9, .	3.4	4
92	Corroles: The Hitherto Elusive Parent Macrocycle and its Metal Complexes. Angewandte Chemie, 0, , .	2.0	1
93	Ultrafast Electron Transfer in a Self-Assembling Sulfonated Aluminum Corrole-Methylviologen Complex. Journal of Physical Chemistry B, 2021, 125, 10571-10577.	2.6	1