Christopher J Barile

List of Publications by Year
in descending order

57 papers	2,203 citations	279798 23 h-index	233421 45 g-index
57 all docs	57 docs citations	57 times ranked	2299 citing authors

#	Article	IF	Citations
1	The Interplay of Al and Mg Speciation in Advanced Mg Battery Electrolyte Solutions. Journal of the American Chemical Society, 2016, 138, 328-337.	13.7	186
2	Dynamic Windows with Neutral Color, High Contrast, and Excellent Durability Using Reversible Metal Electrodeposition. Joule, 2017, 1, 133-145.	24.0	177
3	Electrolytic Conditioning of a Magnesium Aluminum Chloride Complex for Reversible Magnesium Deposition. Journal of Physical Chemistry C, 2014, 118, 27623-27630.	3.1	167
4	Hybrid dynamic windows using reversible metal electrodeposition and ion insertion. Nature Energy, 2019, 4, 223-229.	39.5	130
5	Proton transfer dynamics control the mechanismÂof O2 reduction by a non-precious metalÂelectrocatalyst. Nature Materials, 2016, 15, 754-759.	27.5	126
6	Polymerâ€“Nanoparticle Electrochromic Materials that Selectively Modulate Visible and Near-Infrared Light. Chemistry of Materials, 2016, 28, 1439-1445.	6.7	100
7	Bistable Black Electrochromic Windows Based on the Reversible Metal Electrodeposition of Bi and Cu. ACS Energy Letters, 2018, 3, 104-111.	17.4	91
8	Polymer inhibitors enable >900â€‰cm2 dynamic windows based on reversible metal electrodeposition with high solar modulation. Nature Energy, 2021, 6, 546-554.	39.5	79
9	Electrochemical CO₂reduction to methane with remarkably high Faradaic efficiency in the presence of a proton permeable membrane. Energy and Environmental Science, 2020, 13, 3567-3578.	30.8	77
10	Exploring Salt and Solvent Effects in Chloride-Based Electrolytes for Magnesium Electrodeposition and Dissolution. Journal of Physical Chemistry C, 2015, 119, 13524-13534.	3.1	71
11	Investigating the Reversibility of in Situ Generated Magnesium Organohaloaluminates for Magnesium Deposition and Dissolution. Journal of Physical Chemistry C, 2014, 118, 10694-10699.	3.1	66
12	Effect of Concentration on the Electrochemistry and Speciation of the Magnesium Aluminum Chloride Complex Electrolyte Solution. ACS Applied Materials & Interfaces, 2017, 9, 35729-35739.	8.0	60
13	Investigating the Li-O₂Battery in an Ether-Based Electrolyte Using Differential Electrochemical Mass Spectrometry. Journal of the Electrochemical Society, 2013, 160, A549-A552.	2.9	55
14	Hybrid Bilayer Membrane: A Platform To Study the Role of Proton Flux on the Efficiency of Oxygen Reduction by a Molecular Electrocatalyst. Journal of the American Chemical Society, 2011, 133, 11100-11102.	13.7	54
15	Electrolyte for Improved Durability of Dynamic Windows Based on Reversible Metal Electrodeposition. Joule, 2020, 4, 1501-1513.	24.0	52
16	Proton switch for modulating oxygen reduction by a copper electrocatalyst embedded in a hybrid bilayer membrane. Nature Materials, 2014, 13, 619-623.	27.5	51
17	Factors that Determine the Length Scale for Uniform Tinting in Dynamic Windows Based on Reversible Metal Electrodeposition. ACS Energy Letters, 2018, 3, 2823-2828.	17.4	50
18	Inhibiting platelet-stimulated blood coagulation by inhibition of mitochondrial respiration. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2539-2543.	7.1	43

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19	Controlling Proton and Electron Transfer Rates to Enhance the Activity of an Oxygen Reduction Electrocatalyst. Angewandte Chemie - International Edition, 2018, 57, 13480-13483.	13.8	31
20	Ferrocene Embedded in an Electrode-Supported Hybrid Lipid Bilayer Membrane: A Model System for Electrocatalysis in a Biomimetic Environment. Langmuir, 2010, 26, 17674-17678.	3.5	30
21	Dual Tinting Dynamic Windows Using Reversible Metal Electrodeposition and Prussian Blue. ACS Applied Materials & Interfaces, 2019, 11, 40043-40049.	8.0	30
22	Photoresponsive Molecular Switch for Regulating Transmembrane Proton-Transfer Kinetics. Journal of the American Chemical Society, 2015, 137, 14059-14062.	13.7	29
23	Small Molecule Anchored to Mesoporous ITO for High-Contrast Black Electrochromics. Journal of Physical Chemistry C, 2016, 120, 26336-26341.	3.1	27
24	The Flip-Flop Diffusion Mechanism across Lipids in a Hybrid Bilayer Membrane. Biophysical Journal, 2016, 110, 2451-2462.	0.5	23
25	Dynamic Windows Using Reversible Zinc Electrodeposition in Neutral Electrolytes with High Opacity and Excellent Resting Stability. Advanced Energy Materials, 2021, 11, 2100417.	19.5	23
26	Anion Transport through Lipids in a Hybrid Bilayer Membrane. Analytical Chemistry, 2015, 87, 2403-2409.	6.5	22
27	Improving Electrodeposition of Mg through an Open Circuit Potential Hold. Journal of Physical Chemistry C, 2015, 119, 23366-23372.	3.1	19
28	Aqueous alkaline electrolytes for dynamic windows based on reversible metal electrodeposition with improved durability. Journal of Materials Chemistry C, 2020, 8, 1826-1834.	5.5	19
29	Polymer supported organic catalysts for O2 reduction in Li-O2 batteries. Electrochimica Acta, 2014, 119, 138-143.	5.2	18
30	Thermally-stable dynamic windows based on reversible metal electrodeposition from aqueous electrolytes. Journal of Materials Chemistry C, 2018, 6, 2132-2138.	5.5	18
31	Nanostructured Niâ€"Cu electrocatalysts for the oxygen evolution reaction. Catalysis Science and Technology, 2020, 10, 4960-4967.	4.1	18
32	Hybrid Dynamic Windows with Color Neutrality and Fast Switching Using Reversible Metal Electrodeposition and Cobalt Hexacyanoferrate Electrochromism. ACS Applied Materials & Interfaces, 2020, 12, 44874-44882.	8.0	18
33	Bifunctional nickel and copper electrocatalysts for CO₂ reduction and the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 1741-1748.	10.3	17
34	Dynamic Windows Based on Reversible Metal Electrodeposition with Enhanced Functionality. Journal of the Electrochemical Society, 2019, 166, D333-D338.	2.9	15
35	Tandem Electrocatalytic CO₂ Reduction inside a Membrane with Enhanced Selectivity for Ethylene. Journal of Physical Chemistry C, 2022, 126, 10045-10052.	3.1	15
36	Electrolyte dynamics in reversible metal electrodeposition for dynamic windows. Journal of Applied Electrochemistry, 2018, 48, 443-449.	2.9	14

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37	Controlling the Optical Properties of Dynamic Windows Based on Reversible Metal Electrodeposition. ACS Applied Electronic Materials, 2020, 2, 290-300.	4.3	13
38	Electrocatalytic CO₂ Reduction by Self-Assembled Monolayers of Metal Porphyrins. Journal of Physical Chemistry C, 2020, 124, 19716-19724.	3.1	13
39	Electrolytes for reversible zinc electrodeposition for dynamic windows. Journal of Materials Chemistry C, 0, , .	5.5	13
40	Proton transfer dynamics dictate quinone speciation at lipid-modified electrodes. Physical Chemistry Chemical Physics, 2017, 19, 7086-7093.	2.8	12
41	Electrolyte Effects in Reversible Metal Electrodeposition for Optically Switching Thin Films. Journal of the Electrochemical Society, 2019, 166, D496-D504.	2.9	11
42	Physical and electrochemical characterization of a Cu-based oxygen reduction electrocatalyst inside and outside a lipid membrane with controlled proton transfer kinetics. Electrochimica Acta, 2019, 320, 134611.	5.2	11
43	Cuprous Oxide Electrodeposited with Nickel for the Oxygen Evolution Reaction in 1 M NaOH. Journal of Physical Chemistry C, 2019, 123, 1287-1292.	3.1	11
44	Preparation and Electron-Transfer Properties of Self-Assembled Monolayers of Ferrocene on Carbon Electrodes. Journal of Physical Chemistry C, 2021, 125, 8177-8184.	3.1	11
45	Electrochemical CO₂ Reduction on Polycrystalline Copper by Modulating Proton Transfer with Fluoropolymer Composites. ACS Applied Energy Materials, 2022, 5, 4712-4721.	5.1	11
46	Inhibition of Electrocatalytic O₂ Reduction of Functional CcO Models by Competitive, Non-Competitive, and Mixed Inhibitors. Inorganic Chemistry, 2009, 48, 10528-10534.	4.0	9
47	Dynamic Surface Stress Response during Reversible Mg Electrodeposition and Stripping. Journal of the Electrochemical Society, 2016, 163, A2679-A2684.	2.9	9
48	Membrane-Modified Metal Triazole Complexes for the Electrocatalytic Reduction of Oxygen and Carbon Dioxide. Frontiers in Chemistry, 2018, 6, 543.	3.6	9
49	Four-Electron Electrocatalytic O₂ Reduction by a Ferrocene-Modified Glutathione Complex of Cu. ACS Applied Energy Materials, 2021, 4, 9611-9617.	5.1	9
50	Transparent, Highâ€Charge Capacity Metal Mesh Electrode for Reversible Metal Electrodeposition Dynamic Windows with Darkâ€State Transmission <0.1%. Advanced Energy Materials, 2022, 12, .	19.5	9
51	Nitrile-Facilitated Proton Transfer for Enhanced Oxygen Reduction by Hybrid Electrocatalysts. ACS Catalysis, 2020, 10, 13149-13155.	11.2	8
52	Titanium nitride-supported Cuâ€"Ni bifunctional electrocatalysts for CO₂ reduction and the oxygen evolution reaction. Sustainable Energy and Fuels, 2020, 4, 5654-5664.	4.9	8
53	Reversible Electrodeposition of Ni and Cu for Dynamic Windows. Journal of the Electrochemical Society, 2021, 168, 092501.	2.9	7
54	Kinetic modeling of electrocatalytic oxygen reduction products from lipid-modified electrodes. Journal of Mathematical Chemistry, 2019, 57, 2195-2207.	1.5	3

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55	A Cost-Effective Optoelectronic Cycler for the Durability Testing of Dynamic Windows: Case Studies with Reversible Metal Electrodeposition Devices. Journal of the Electrochemical Society, 2022, 169, 072502.	2.9	3
56	Controlling Proton and Electron Transfer Rates to Enhance the Activity of an Oxygen Reduction Electrocatalyst. Angewandte Chemie, 2018, 130, 13668-13671.	2.0	2
57	Synthesis dynamics of silver nanowires galvanically displaced by platinum salts: a fabrication route for oxygen reduction electrocatalysts and metal electrodeposition electrodes. SN Applied Sciences, 2020, 2, 1.	2.9	0