

Darren A Walsh

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74
papers

2,681
citations

31
h-index

50
g-index

88
ext. papers

3,020
ext. citations

9.5
avg. IF

5.47
L-index

#	Paper	IF	Citations
74	Thermodynamic guidelines for the design of bimetallic catalysts for oxygen electroreduction and rapid screening by scanning electrochemical microscopy. M-co (M: Pd, Ag, Au). <i>Journal of the American Chemical Society</i> , 2005 , 127, 357-65	16.4	551
73	Biomass-derived activated carbon with simultaneously enhanced CO ₂ uptake for both pre and post combustion capture applications. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 280-289	13	178
72	Green One-Step Synthesis of Catalytically Active Palladium Nanoparticles Supported on Cellulose Nanocrystals. <i>ACS Sustainable Chemistry and Engineering</i> , 2014 , 2, 1241-1250	8.3	105
71	Electrochemical Capacitance of Nanocomposite Polypyrrole/Cellulose Films. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17926-17933	3.8	101
70	Permselective nanostructured membranes based on cellulose nanowhiskers. <i>Green Chemistry</i> , 2009 , 11, 531	10	93
69	Synergistic Catalyst-Support Interactions in a Graphene/Mn ₃ O ₄ Electrocatalyst for Vanadium Redox Flow Batteries. <i>ACS Catalysis</i> , 2015 , 5, 7122-7130	13.1	88
68	Synthesis of platinum nanoparticles using cellulosic reducing agents. <i>Green Chemistry</i> , 2010 , 12, 220-222	10	85
67	Synthesis of carbon-supported Pt nanoparticle electrocatalysts using nanocrystalline cellulose as reducing agent. <i>Green Chemistry</i> , 2011 , 13, 1686	10	79
66	Ultramicroelectrode voltammetry and scanning electrochemical microscopy in room-temperature ionic liquid electrolytes. <i>Chemical Society Reviews</i> , 2010 , 39, 4185-94	58.5	62
65	Rapid Screening of Bimetallic Electrocatalysts for Oxygen Reduction in Acidic Media by Scanning Electrochemical Microscopy. <i>Journal of the Electrochemical Society</i> , 2006 , 153, E99	3.9	57
64	Modulating the redox properties of an osmium-containing metallopolymer through the supporting electrolyte and cross-linking. <i>Langmuir</i> , 2004 , 20, 862-8	4	57
63	Heterogeneous electron transfer kinetics at the ionic liquid/metal interface studied using cyclic voltammetry and scanning electrochemical microscopy. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 13292-4	3.4	55
62	Effect of viscosity on steady-state voltammetry and scanning electrochemical microscopy in room temperature ionic liquids. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 4442-50	3.4	50
61	Extremely Stable Platinum-Amorphous Carbon Electrocatalyst within Hollow Graphitized Carbon Nanofibers for the Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2016 , 28, 9103-9108	24	45
60	Hydrogen Oxidation and Oxygen Reduction at Platinum in Protic Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 18048-18056	3.8	45
59	High total-electrode and mass-specific capacitance cellulose nanocrystal-polypyrrole nanocomposites for supercapacitors. <i>RSC Advances</i> , 2013 , 3, 9158	3.7	44
58	Scanning electrochemical microscopy. 55. Fabrication and characterization of micropipet probes. <i>Analytical Chemistry</i> , 2005 , 77, 5182-8	7.8	42

57	Room temperature ionic liquid electrolytes for redox flow batteries. <i>Electrochemistry Communications</i> , 2015 , 54, 55-59	5.1	40
56	Comparison of electrochemical, electrophoretic and spectrophotometric methods for creatinine determination in biological fluids. <i>Analytica Chimica Acta</i> , 2002 , 459, 187-198	6.6	40
55	Kinetics and mechanism of oxygen reduction in a protic ionic liquid. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 7548-54	3.6	39
54	Host-Guest Hybrid Redox Materials Self-Assembled from Polyoxometalates and Single-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2019 , 31, e1904182	24	38
53	Iodide/triiodide electrochemistry in ionic liquids: Effect of viscosity on mass transport, voltammetry and scanning electrochemical microscopy. <i>Electrochimica Acta</i> , 2011 , 56, 10313-10320	6.7	38
52	On the diffusion of ferrocenemethanol in room-temperature ionic liquids: an electrochemical study. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 10155-64	3.6	37
51	Sulfonylative and Azidosulfonylative Cyclizations by Visible-Light-Photosensitization of Sulfonyl Azides in THF. <i>Chemistry - A European Journal</i> , 2017 , 23, 17598-17604	4.8	34
50	Electrolyte Jet Machining of Titanium Alloys Using Novel Electrolyte Solutions. <i>Procedia CIRP</i> , 2016 , 42, 367-372	1.8	34
49	Closed Bipolar Electrodes for Spatial Separation of H and O Evolution during Water Electrolysis and the Development of High-Voltage Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 23654-23681	8.5	34
48	Bridging the performance gap between electric double-layer capacitors and batteries with high-energy/high-power carbon nanotube-based electrodes. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 14586-14594	13	33
47	2021 roadmap on lithium sulfur batteries. <i>JPhys Energy</i> , 2021 , 3, 031501	4.9	32
46	The Role of Adsorbed Ions during Electrocatalysis in Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 7414-7422	3.8	31
45	Nanocomposite oxygen reduction electrocatalysts formed using bioderived reducing agents. <i>Journal of Materials Chemistry</i> , 2010 , 20, 1737		31
44	Palladium-Ni alloy electrocatalysts for oxygen reduction: Effect of heat treatment on electrocatalytic activity and stability. <i>Applied Catalysis B: Environmental</i> , 2010 , 98, 49-56	21.8	31
43	Visualisation of the local electrochemical activity of thermal sprayed anti-corrosion coatings using scanning electrochemical microscopy. <i>Electrochimica Acta</i> , 2009 , 54, 4647-4654	6.7	28
42	Electrocatalytic oxidation of methanol and carbon monoxide at platinum in protic ionic liquids. <i>Electrochemistry Communications</i> , 2012 , 23, 122-124	5.1	25
41	Polyaniline- and poly(ethylenedioxythiophene)-cellulose nanocomposite electrodes for supercapacitors. <i>Journal of Solid State Electrochemistry</i> , 2014 , 18, 3307-3315	2.6	22
40	Carbon nanofiber electrodes and controlled nanogaps for scanning electrochemical microscopy experiments. <i>Analytical Chemistry</i> , 2006 , 78, 6959-66	7.8	21

39	Formal synthesis of kingianin A based upon a novel electrochemically-induced radical cation Diels-Alder reaction. <i>Chemical Communications</i> , 2014 , 50, 12523-5	5.8	20
38	Electroanalysis of Neutral Precursors in Protic Ionic Liquids and Synthesis of High-Ionicity Ionic Liquids. <i>Langmuir</i> , 2017 , 33, 8436-8446	4	20
37	Tuning percolation speed in layer-by-layer assembled polyaniline/nanocellulose composite films. <i>Journal of Solid State Electrochemistry</i> , 2011 , 15, 2675-2681	2.6	20
36	Formation and growth of oxide layers at platinum and gold nano- and microelectrodes. <i>Analytical Chemistry</i> , 2010 , 82, 7135-40	7.8	20
35	Molecular redox species for next-generation batteries. <i>Chemical Society Reviews</i> , 2021 , 50, 5863-5883	58.5	19
34	Valorization of lignin waste: high electrochemical capacitance of lignin-derived carbons in aqueous and ionic liquid electrolytes. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 18701-18711	13	19
33	The Nature of Proton Shuttling in Protic Ionic Liquid Fuel Cells. <i>Advanced Energy Materials</i> , 2019 , 9, 1900748	7.8	18
32	Tip generation/substrate collection/Tip collection mode scanning electrochemical microscopy of oxygen reduction electrocatalysts. <i>Journal of Electroanalytical Chemistry</i> , 2012 , 682, 45-52	4.1	17
31	Tuning the Reactivity of TEMPO during Electrocatalytic Alcohol Oxidations in Room-Temperature Ionic Liquids. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 11691-11699	8.3	16
30	The Formation and Role of Oxide Layers on Pt during Hydrazine Oxidation in Protic Ionic Liquids. <i>ChemElectroChem</i> , 2014 , 1, 281-288	4.3	14
29	Highly stable platinum electrocatalysts for oxygen reduction formed using supercritical fluid impregnation. <i>Journal of Power Sources</i> , 2010 , 195, 2557-2563	8.9	14
28	Redox-Active Hybrid Polyoxometalate-Stabilised Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 14331-14335	16.4	12
27	Deposition of silver nanobowl arrays using polystyrene nanospheres both as reagents and as the templating material. <i>Journal of Materials Chemistry</i> , 2011 , 21, 7555		12
26	Best Practice for Evaluating Electrocatalysts for Hydrogen Economy. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 20500-20506	9.5	11
25	Gel/Polymer Electrolytes Based on Poly(Ionic Liquid)/Ionic Liquid Networks. <i>ACS Applied Polymer Materials</i> , 2021 , 3, 200-208	4.3	11
24	Developing energy efficient lignin biomass processing - towards understanding mediator behaviour in ionic liquids. <i>Faraday Discussions</i> , 2016 , 190, 127-45	3.6	10
23	Physical and Electrochemical Modulation of Polyoxometalate Ionic Liquids via Organic Functionalization. <i>European Journal of Inorganic Chemistry</i> , 2019 , 2019, 456-460	2.3	10
22	Effects of chain length on the size, stability, and electronic structure of redox-active organic/inorganic hybrid polyoxometalate micelles. <i>Molecular Systems Design and Engineering</i> , 2019 , 4, 995-999	4.6	9

21	Cellulose Nanowhiskers in Electrochemical Applications. <i>ACS Symposium Series</i> , 2012 , 75-106	0.4	9
20	Scanning electrochemical microscopy at thermal sprayed anti-corrosion coatings: Effect of thermal spraying on heterogeneous electron transfer kinetics. <i>Journal of Electroanalytical Chemistry</i> , 2011 , 657, 46-53	4.1	9
19	Efficient Electrocatalytic CO Reduction Driven by Ionic Liquid Buffer-Like Solutions. <i>ChemSusChem</i> , 2019 , 12, 4170-4175	8.3	8
18	Facile cation electro-insertion into layer-by-layer assembled iron phytate films. <i>Electrochemistry Communications</i> , 2010 , 12, 1722-1726	5.1	8
17	The contrasting effects of diethylmethylamine during reduction of protons and oxidation of formic acid in diethylmethylammonium-based protic ionic liquids. <i>Journal of Electroanalytical Chemistry</i> , 2018 , 819, 187-192	4.1	7
16	Hydrogen Electrooxidation under Conditions of High Mass Transport in Room-Temperature Ionic Liquids and the Role of Underpotential-Deposited Hydrogen. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11498-11507	3.8	5
15	Impact of ion solvation on charge transport through [Os(bpy) ₂ (H ₂ tzt) Cl] ⁺ in the solid state. <i>Physical Chemistry Chemical Physics</i> , 2004 , 6, 3551	3.6	5
14	Diethylmethylammonium trifluoromethanesulfonate protic ionic liquid electrolytes for water electrolysis. <i>Journal of Power Sources</i> , 2020 , 449, 227602	8.9	5
13	Electrochemistry of redox-active molecules confined within narrow carbon nanotubes. <i>Chemical Society Reviews</i> , 2021 , 50, 10895-10916	58.5	5
12	Redox switching in solid deposits: triazole bridged osmium dimers. <i>Journal of Electroanalytical Chemistry</i> , 2002 , 538-539, 75-85	4.1	4
11	Stabilization of Polyoxometalate Charge Carriers via Redox-Driven Nanoconfinement in Single-walled Carbon Nanotubes.. <i>Angewandte Chemie - International Edition</i> , 2021 , e202115619	16.4	4
10	Functionalization of Carbon Surfaces Tunes the Redox Stability of [email[protected]] Electrodes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 12308-12315	6.1	4
9	Conducting Polymer Nanocomposite-Based Supercapacitors. <i>Springer Series on Polymer and Composite Materials</i> , 2017 , 269-304	0.9	2
8	Organic/Inorganic Hybrid Polyoxotungstates As Configurable Charge Carriers for High Energy Redox Flow Batteries. <i>ACS Applied Energy Materials</i> , 2021 , 4, 8765-8773	6.1	2
7	Electrocatalysis in Room Temperature Ionic Liquids 2015 , 483-506		1
6	Ultramicroelectrode Voltammetry and Scanning Electrochemical Microscopy in Room Temperature Ionic Liquids 2015 , 113-141		1
5	An ultra-high vacuum electrochemical/mass spectrometry study of anodic decomposition of a protic ionic liquid. <i>Electrochemistry Communications</i> , 2018 , 90, 111-115	5.1	1
4	Electrocatalysis: Extremely Stable Platinum-Amorphous Carbon Electrocatalyst within Hollow Graphitized Carbon Nanofibers for the Oxygen Reduction Reaction (Adv. Mater. 41/2016). <i>Advanced Materials</i> , 2016 , 28, 9231-9231	24	1

3	Electrochemical Oscillatory Baffled Reactors Fabricated with Additive Manufacturing for Efficient Continuous-Flow Oxidations.. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 2388-2396	8.3	o
2	Redox-Active Hybrid Polyoxometalate-Stabilised Gold Nanoparticles. <i>Angewandte Chemie</i> , 2020 , 132, 14437-14441	3.6	o
1	Electrochemical Reactivity of Atomic and Molecular Species under Solid-state Confinement. <i>Current Opinion in Electrochemistry</i> , 2022 , 101014	7.2	o