Robert A W Dryfe

List of Publications by Year
in descending order

48	2,201	27	46
papers	citations	h-index	g-index
		201674	223800

52	52	52	3400
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Desalination and Nanofiltration through Functionalized Laminar MoS₂ Membranes. ACS Nano, 2017, 11, 11082-11090.	14.6	275
2	Two-Step Electrochemical Intercalation and Oxidation of Graphite for the Mass Production of Graphene Oxide. Journal of the American Chemical Society, 2017, 139, 17446-17456.	13.7	211
3	Enhanced Photoelectrochemical Performance of Cuprous Oxide/Graphene Nanohybrids. Journal of the American Chemical Society, 2017, 139, 6682-6692.	13.7	120
4	A simple electrochemical route to metallic phase trilayer MoS₂: evaluation as electrocatalysts and supercapacitors. Journal of Materials Chemistry A, 2017, 5, 11316-11330.	10.3	119
5	Multispectral graphene-based electro-optical surfaces with reversible tunability from visible to microwave wavelengths. Nature Photonics, 2021, 15, 493-498.	31.4	97
6	Graphene oxideâ€“polybenzimidazolium nanocomposite anion exchange membranes for electrodialysis. Journal of Materials Chemistry A, 2018, 6, 24728-24739.	10.3	87
7	Self-assembly of a layered two-dimensional molecularly woven fabric. Nature, 2020, 588, 429-435.	27.8	74
8	Unravelling the Mechanism of Rechargeable Aqueous Znâ€“MnO₂ Batteries: Implementation of Charging Process by Electrodeposition of MnO₂. ChemSusChem, 2020, 13, 4103-4110.	6.8	74
9	Electrochemical Interaction of Few-Layer Molybdenum Disulfide Composites vs Sodium: New Insights on the Reaction Mechanism. Chemistry of Materials, 2017, 29, 5886-5895.	6.7	71
10	Electrochemistry of the Basal Plane versus Edge Plane of Graphite Revisited. Journal of Physical Chemistry C, 2019, 123, 11677-11685.	3.1	67
11	Single Stage Simultaneous Electrochemical Exfoliation and Functionalization of Graphene. ACS Applied Materials & Interfaces, 2017, 9, 710-721.	8.0	62
12	Water friction in nanofluidic channels made from two-dimensional crystals. Nature Communications, 2021, 12, 3092.	12.8	59
13	Ion-Exchange Materials for Membrane Capacitive Deionization. ACS ES&T Water, 2021, 1, 217-239.	4.6	56
14	Investigation of Voltage Range and Selfâ€Discharge in Aqueous Zincâ€Ion Hybrid Supercapacitors. ChemSusChem, 2021, 14, 1700-1709.	6.8	51
15	Capacitance of Basal Plane and Edge-Oriented Highly Ordered Pyrolytic Graphite: Specific Ion Effects. Journal of Physical Chemistry Letters, 2019, 10, 617-623.	4.6	50
16	In situ Electron paramagnetic resonance spectroelectrochemical study of graphene-based supercapacitors: Comparison between chemically reduced graphene oxide and nitrogen-doped reduced graphene oxide. Carbon, 2020, 160, 236-246.	10.3	49
17	Well-Defined Boron/Nitrogen-Doped Polycyclic Aromatic Hydrocarbons Are Active Electrocatalysts for the Oxygen Reduction Reaction. Chemistry of Materials, 2019, 31, 1891-1898.	6.7	42
18	Electronic structure design for nanoporous, electrically conductive zeolitic imidazolate frameworks. Journal of Materials Chemistry C, 2017, 5, 7726-7731.	5.5	40

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19	Electrochemically Exfoliated Graphene Electrode for High-Performance Rechargeable Chloroaluminate and Dual-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 23261-23270.	8.0	40
20	Controlled Electrodeposition of Gold on Graphene: Maximization of the Defectâ€Enhanced Raman Scattering Response. Small, 2019, 15, e1901555.	10.0	40
21	The significance of bromide in the Brustâ€“Schiffrin synthesis of thiol protected gold nanoparticles. Chemical Science, 2017, 8, 7954-7962.	7.4	37
22	Systematic Comparison of Graphene Materials for Supercapacitor Electrodes. ChemistryOpen, 2019, 8, 418-428.	1.9	36
23	Understanding the electrochemistry of â€œwater-in-saltâ€• electrolytes: basal plane highly ordered pyrolytic graphite as a model system. Chemical Science, 2020, 11, 6978-6989.	7.4	36
24	A Universal Electrolyte Formulation for the Electrodeposition of Pristine Carbon and Polypyrrole Composites for Supercapacitors. ACS Applied Materials & Interfaces, 2020, 12, 13386-13399.	8.0	35
25	Resolution of Lithium Deposition versus Intercalation of Graphite Anodes in Lithium Ion Batteries: An In Situ Electron Paramagnetic Resonance Study. Angewandte Chemie - International Edition, 2021, 60, 21860-21867.	13.8	35
26	Optimisation of electrolytic solvents for simultaneous electrochemical exfoliation and functionalisation of graphene with metal nanostructures. Carbon, 2018, 128, 257-266.	10.3	30
27	Black phosphorus with near-superhydrophobic properties and long-term stability in aqueous media. Chemical Communications, 2018, 54, 3831-3834.	4.1	28
28	Electron Paramagnetic Resonance as a Structural Tool to Study Graphene Oxide: Potential Dependence of the EPR Response. Journal of Physical Chemistry C, 2019, 123, 22556-22563.	3.1	26
29	Asymmetric Membrane Capacitive Deionization Using Anion-Exchange Membranes Based on Quaternized Polymer Blends. ACS Applied Polymer Materials, 2020, 2, 2946-2956.	4.4	26
30	Laser Assisted Solution Synthesis of High Performance Graphene Supported Electrocatalysts. Advanced Functional Materials, 2020, 30, 2001756.	14.9	23
31	<i>In situ</i> electrochemical electron paramagnetic resonance spectroscopy as a tool to probe electrical double layer capacitance. Chemical Communications, 2018, 54, 3827-3830.	4.1	22
32	Cell optimisation of supercapacitors using a quasi-reference electrode and potentiostatic analysis. Journal of Power Sources, 2019, 424, 52-60.	7.8	20
33	Reversible Electrochemical Energy Storage Based on Zinc-Halide Chemistry. ACS Applied Materials & Interfaces, 2021, 13, 14112-14121.	8.0	18
34	Electrodeposition of Au on basal plane graphite and graphene. Journal of Electroanalytical Chemistry, 2018, 819, 374-383.	3.8	16
35	Room-Temperature Production of Nanocrystalline Molybdenum Disulfide (MoS₂) at the Liquidâˆ'Liquid Interface. Chemistry of Materials, 2019, 31, 5384-5391.	6.7	16
36	Electron Tunneling through Boron Nitride Confirms Marcusâ€“Hush Theory Predictions for Ultramicroelectrodes. ACS Nano, 2020, 14, 993-1002.	14.6	16

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37	Electrowetting on conductors: anatomy of the phenomenon. Faraday Discussions, 2017, 199, 49-61.	3.2	15
38	Anodic dissolution growth of metalâ€“organic framework HKUST-1 monitored <i>via in situ</i> electrochemical atomic force microscopy. CrystEngComm, 2018, 20, 4421-4427.	2.6	15
39	High temperature supercapacitors using water-in-salt electrolytes: stability above 100 Â°C. Chemical Communications, 2021, 57, 5294-5297.	4.1	14
40	Enhanced Photoluminescence of Solution-Exfoliated Transition Metal Dichalcogenides by Laser Etching. ACS Omega, 2017, 2, 738-745.	3.5	13
41	The Modified Liquidâ€Liquid Interface: The Effect of an Interfacial Layer of MoS₂ on Ion Transfer. ChemElectroChem, 2021, 8, 4445-4455.	3.4	11
42	Secondary Structural Changes in Proteins as a Result of Electroadsorption at Aqueousâ€“Organogel Interfaces. Langmuir, 2019, 35, 5821-5829.	3.5	9
43	Utilizing Cyclic Voltammetry to Understand the Energy Storage Mechanisms for Copper Oxide and its Graphene Oxide Hybrids as Lithiumâ€Ion Battery Anodes. ChemSusChem, 2020, 13, 1504-1516.	6.8	9
44	Phospholipid-mediated exfoliation as a facile preparation method for graphene suspensions. RSC Advances, 2018, 8, 19220-19225.	3.6	5
45	Resolution of Lithium Deposition versus Intercalation of Graphite Anodes in Lithium Ion Batteries: An In Situ Electron Paramagnetic Resonance Study. Angewandte Chemie, 2021, 133, 22031-22038.	2.0	4
46	Biofunctional few-layer metal dichalcogenides and related heterostructures produced by direct aqueous exfoliation using phospholipids. RSC Advances, 2019, 9, 37061-37066.	3.6	1
47	Utilizing Cyclic Voltammetry to Understand the Energy Storage Mechanisms for Copper Oxide and its Graphene Oxide Hybrids as Lithiumâ€Ion Battery Anodes. ChemSusChem, 2020, 13, 1046-1046.	6.8	1
48	The Modified Liquidâ€Liquid Interface: The Effect of an Interfacial Layer of MoS 2 on Ion Transfer. ChemElectroChem, 2021, 8, 4393.	3.4	0