Noel W Duffy

List of Publications by Year
in descending order

91 papers	4,848 citations	87843 38 h-index	95218 68 g-index
96 all docs	96 docs citations	96 times ranked	6670 citing authors

#	Article	IF	Citations
1	High-efficiency dye-sensitized solar cells with ferrocene-based electrolytes. Nature Chemistry, 2011, 3, 211-215.	6.6	553
2	A novel charge extraction method for the study of electron transport and interfacial transfer in dye sensitised nanocrystalline solar cells. Electrochemistry Communications, 2000, 2, 658-662.	2.3	296
3	Changing the Look of Voltammetry. Analytical Chemistry, 2005, 77, 186 A-195 A.	3.2	184
4	Highly Efficient pâ€Type Dyeâ€Sensitized Solar Cells based on Tris(1,2â€diaminoethane)Cobalt(II)/(III) Electrolytes. Angewandte Chemie - International Edition, 2013, 52, 602-605.	7.2	177
5	Insights into Planar CH₃NH₃PbI₃ Perovskite Solar Cells Using Impedance Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 4444-4453.	1.5	160
6	Investigation of the Kinetics of the Back Reaction of Electrons with Tri-Iodide in Dye-Sensitized Nanocrystalline Photovoltaic Cells. Journal of Physical Chemistry B, 2000, 104, 8916-8919.	1.2	157
7	Dye regeneration and charge recombination in dye-sensitized solar cells with ferrocene derivatives as redox mediators. Energy and Environmental Science, 2012, 5, 7090.	15.6	156
8	Near-Infrared Absorbing Cu₁₂Sb₄S₁₃ and Cu₃SbS₄ Nanocrystals: Synthesis, Characterization, and Photoelectrochemistry. Journal of the American Chemical Society, 2013, 135, 11562-11571.	6.6	155
9	A New Direction in Dye-Sensitized Solar Cells Redox Mediator Development: In Situ Fine-Tuning of the Cobalt(II)/(III) Redox Potential through Lewis Base Interactions. Journal of the American Chemical Society, 2012, 134, 16646-16653.	6.6	134
10	In situ infrared spectroscopic analysis of the adsorption of ruthenium(II) bipyridyl dicarboxylic acid photosensitisers to TiO2 in aqueous solutions. Chemical Physics Letters, 1997, 266, 451-455.	1.2	111
11	Aqueous Dyeâ€Sensitized Solar Cell Electrolytes Based on the Ferricyanideâ€“Ferrocyanide Redox Couple. Advanced Materials, 2012, 24, 1222-1225.	11.1	110
12	Inorganic Electron Transport Materials in Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2008300.	7.8	105
13	Cu₂ZnSnS_{4x}Se_{4(1â€“x)} Solar Cells from Polar Nanocrystal Inks. Journal of the American Chemical Society, 2014, 136, 5237-5240.	6.6	102
14	Enhancing the Optoelectronic Performance of Perovskite Solar Cells via a Textured CH₃NH₃PbI₃ Morphology. Advanced Functional Materials, 2016, 26, 1278-1285.	7.8	90
15	Stable Dyeâ€Sensitized Solar Cell Electrolytes Based on Cobalt(II)/(III) Complexes of a Hexadentate Pyridyl Ligand. Angewandte Chemie - International Edition, 2013, 52, 5527-5531.	7.2	87
16	Fully printable perovskite solar cells with highly-conductive, low-temperature, perovskite-compatible carbon electrode. Carbon, 2018, 129, 830-836.	5.4	79
17	Visualizing Phase Segregation in Mixedâ€Halide Perovskite Single Crystals. Angewandte Chemie - International Edition, 2019, 58, 2893-2898.	7.2	77
18	Planar versus mesoscopic perovskite microstructures: The influence of CH3NH3PbI3 morphology on charge transport and recombination dynamics. Nano Energy, 2016, 22, 439-452.	8.2	76

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19	Dominating Energy Losses in NiO pâ€Type Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2015, 5, 1401387.	10.2	75
20	The nickelâ€“carbon asymmetric supercapacitorâ€”Performance, energy density and electrode mass ratios. Electrochimica Acta, 2008, 54, 535-539.	2.6	74
21	Resistance, Capacitance, and Electrode Kinetic Effects in Fourier-Transformed Large-Amplitude Sinusoidal Voltammetry:â€‰ Emergence of Powerful and Intuitively Obvious Tools for Recognition of Patterns of Behavior. Analytical Chemistry, 2004, 76, 6214-6228.	3.2	73
22	How reliable are efficiency measurements of perovskite solar cells? The first inter-comparison, between two accredited and eight non-accredited laboratories. Journal of Materials Chemistry A, 2017, 5, 22542-22558.	5.2	70
23	Dipole-field-assisted charge extraction in metal-perovskite-metal back-contact solar cells. Nature Communications, 2017, 8, 613.	5.8	66
24	Characterisation of electron transport and back reaction in dye-sensitised nanocrystalline solar cells by small amplitude laser pulse excitation. Electrochemistry Communications, 2000, 2, 262-266.	2.3	62
25	In Situ Formation of Reactive Sulfide Precursors in the One-Pot, Multigram Synthesis of Cu₂ZnSnS₄ Nanocrystals. Crystal Growth and Design, 2013, 13, 1712-1720.	1.4	57
26	Synthesis, Structure, and Electronic Communication in Complexes Derived from RC2Co2(CO)6C2Co2(CO)6R. Organometallics, 1996, 15, 3935-3943.	1.1	54
27	Controlled Growth of Monocrystalline Organoâ€Lead Halide Perovskite and Its Application in Photonic Devices. Angewandte Chemie - International Edition, 2017, 56, 12486-12491.	7.2	54
28	Synthesis and stereochemistry of bis(platinum) complexes of ferrocenylamines. Organometallics, 1994, 13, 511-521.	1.1	50
29	Evaluation of the effects of oxygen evolution on the capacity and cycle life of nickel hydroxide electrode materials. Journal of Power Sources, 2007, 168, 513-521.	4.0	49
30	Electrodeposition and characterisation of CdTe films for solar cell applications. Electrochimica Acta, 2000, 45, 3355-3365.	2.6	48
31	Photophysical, dynamic and redox behavior of tris(2,6-diisopropylphenyl)phosphine. New Journal of Chemistry, 2008, 32, 214-231.	1.4	47
32	Cyanomethylbenzoic Acid: An Acceptor for Donorâ€“Ïâ€“Acceptor Chromophores Used in Dyeâ€Sensitized Solar Cells. ChemSusChem, 2013, 6, 256-260.	3.6	47
33	Surface State Recombination and Passivation in Nanocrystalline TiO2 Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 25118-25126.	1.5	46
34	Macroelectrode voltammetry in toluene using a phosphoniumâ€“phosphate ionic liquid as the supporting electrolyte. Electrochemistry Communications, 2006, 8, 892-898.	2.3	44
35	Influence of moisture out-gassing from encapsulant materials on the lifetime of organic solar cells. Solar Energy Materials and Solar Cells, 2015, 132, 485-491.	3.0	44
36	Cu2ZnGeS4 Nanocrystals from Air-Stable Precursors for Sintered Thin Film Alloys. Chemistry of Materials, 2014, 26, 5482-5491.	3.2	42

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37	Characterization of Nonlinear Background Components in Voltammetry by Use of Large Amplitude Periodic Perturbations and Fourier Transform Analysis. Analytical Chemistry, 2009, 81, 8801-8808.	3.2	40
38	Electronic interactions in diyne Co2(CO)6 complexes. Inorganica Chimica Acta, 1996, 247, 99-104.	1.2	38
39	Non-injection synthesis of Cu₂ZnSnS₄nanocrystals using a binary precursor and ligand approach. RSC Advances, 2013, 3, 1017-1020.	1.7	38
40	Communication between Co2(CO)4dppm Units via Polyferrocenylalkyne Linkages. Organometallics, 2000, 19, 5039-5048.	1.1	35
41	Cyclic Voltammetry of Th(IV) in the Room-Temperature Ionic Liquid [Me3NnBu][N(SO2CF3)2]. Inorganic Chemistry, 2006, 45, 1677-1682.	1.9	34
42	Electrochemical Impedance Spectroscopyâ€"A Simple Method for the Characterization of Polymer Inclusion Membranes Containing Aliquat 336. Membranes, 2011, 1, 132-148.	1.4	34
43	Conducting polymer and titanium carbide-based nanocomposites as efficient counter electrodes for dye-sensitized solar cells. Electrochimica Acta, 2013, 105, 275-281.	2.6	34
44	Strategically Constructed Bilayer Tin (IV) Oxide as Electron Transport Layer Boosts Performance and Reduces Hysteresis in Perovskite Solar Cells. Small, 2020, 16, e1901466.	5.2	32
45	Cement and concrete flow analysis in a rapidly expanding economy: Ireland as a case study. Resources, Conservation and Recycling, 2011, 55, 448-455.	5.3	30
46	Detection of Oxygen Evolution from Nickel Hydroxide Electrodes Using Scanning Electrochemical Microscopy. Journal of the Electrochemical Society, 2008, 155, A262.	1.3	28
47	On the Role of the Spacer Layer in Monolithic Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2010, 114, 2365-2369.	1.5	28
48	Plasmonic Ge-doped ZnO nanocrystals. Chemical Communications, 2015, 51, 12369-12372.	2.2	28
49	Bulk recrystallization for efficient mixed-cation mixed-halide perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 25511-25520.	5.2	27
50	An EPR Study of 2,3-Bis(diphenylphosphino)maleic Anhydride (BMA) Complexes and the BMA Radical Anion. Inorganic Chemistry, 1998, 37, 4849-4856.	1.9	26
51	Cobalt Polypyridyl Complexes as Transparent Solutionâ€Processable Solidâ€State Charge Transport Materials. Advanced Energy Materials, 2016, 6, 1600874.	10.2	25
52	Chiral C1- and C2-Symmetrical 2,2''-Bis(1-aminoethyl)-1,1''-biferrocenes: Synthesis, Structure, and Redox Chemistry. Organometallics, 1994, 13, 4895-4904.	1.1	24
53	Synthesis and redox chemistry of 1,1â€²-bis(diphenylphosphino)ferrocene derivatives of R2C2Co2(CO)6 (R î—») Tj ETQq1 1 0.78431	0.8	24
54	Fourier Transformed Large Amplitude Square-Wave Voltammetry as an Alternative to Impedance Spectroscopy: Evaluation of Resistance, Capacitance and Electrode Kinetic Effects via an Heuristic Approach. Electroanalysis, 2005, 17, 1450-1462.	1.5	24

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55	Mimicry of Sputtered i-ZnO Thin Films Using Chemical Bath Deposition for Solution-Processed Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 22519-22526.	4.0	23
56	Microwave Reflectance Studies of Photoelectrochemical Kinetics at Semiconductor Electrodes. 1. Steady-State, Transient, and Periodic Responses. Journal of Physical Chemistry B, 2003, 107, 5857-5863.	1.2	22
57	The Performanceâ€Determining Role of Lewis Bases in Dyeâ€Sensitized Solar Cells Employing Copperâ€Bisphenanthroline Redox Mediators. Advanced Energy Materials, 2020, 10, 2002067.	10.2	22
58	Relationships between basicity, redox behaviour of ferrocenylamines and their reactivity with Pt[II] compounds. Journal of Organometallic Chemistry, 1998, 564, 125-131.	0.8	20
59	Synthesis, structure and electrochemistry of ferrocenylethynylsilanes and their complexes with dicobalt octacarbonyl. Journal of Organometallic Chemistry, 1999, 573, 36-46.	0.8	20
60	Effect on Cell Efficiency following Thermal Degradation of Dye-Sensitized Mesoporous Electrodes Using N719 and D5 Sensitizers. Journal of Physical Chemistry C, 2009, 113, 18902-18906.	1.5	20
61	Polypyridyl Iron Complex as a Hole-Transporting Material for Formamidinium Lead Bromide Perovskite Solar Cells. ACS Energy Letters, 2017, 2, 1855-1859.	8.8	17
62	Solution-processed CdS thin films from a single-source precursor. Journal of Materials Chemistry C, 2014, 2, 3247-3253.	2.7	16
63	Perovskite solar cells with a hybrid electrode structure. AIP Advances, 2019, 9, 125037.	0.6	16
64	Neural Electrodes Based on 3D Organic Electroactive Microfibers. Advanced Functional Materials, 2018, 28, 1700927.	7.8	15
65	Microwave Reflectance Studies of Photoelectrochemical Kinetics at Semiconductor Electrodes. 2. Hydrogen Evolution at p-Si in Ammonium Fluoride Solution. Journal of Physical Chemistry B, 2003, 107, 5864-5870.	1.2	14
66	Efficient All-Printable Solid-State Dye-Sensitized Solar Cell Based on a Low-Resistivity Carbon Composite Counter Electrode and Highly Doped Hole Transport Material. Journal of Physical Chemistry C, 2015, 119, 11410-11418.	1.5	14
67	Tunable Crystallization and Nucleation of Planar CH₃NH₃PbI₃ through Solvent-Modified Interdiffusion. ACS Applied Materials & Interfaces, 2018, 10, 14673-14683.	4.0	14
68	Can Laminated Carbon Challenge Gold? Toward Universal, Scalable, and Lowâ€Cost Carbon Electrodes for Perovskite Solar Cells. Advanced Materials Technologies, 2022, 7, 2101148.	3.0	14
69	Synthesis, structure and redox chemistry of ferrocenylsilylmethylidinetricobaltnonacarbonyl complexes, FcSi(R)2CCo3(CO)9, 1,1â€²-Fcâ€²[Si(R)2CCo3(CO)9]2 (R = Me, Et, Ph) and their derivatives. Journal of Organometallic Chemistry, 1992, 437, 323-346.	0.8	13
70	Preparation and redox properties of phosphite derivatives of R2C2Co2(CO)6â˜n[P(OMe)3]n (R=CF3,) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.8	12
71	Comparison of the electrochemical behaviour of buckypaper and polymer-intercalated buckypaper electrodes. Journal of Electroanalytical Chemistry, 2011, 652, 52-59.	1.9	12
72	Attributes of Direct Current Aperiodic and Alternating Current Harmonic Components Derived From Large Amplitude Fourier Transformed Voltammetry Under Microfluidic Control in a Channel Electrode. Analytical Chemistry, 2012, 84, 6686-6692.	3.2	10

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73	Intraphase Microstructureâ€“Understanding the Impact on Organic Solar Cell Performance. Advanced Functional Materials, 2013, 23, 5655-5662.	7.8	10
74	Controlled Growth of Monocrystalline Organoâ€Lead Halide Perovskite and Its Application in Photonic Devices. Angewandte Chemie, 2017, 129, 12660-12665.	1.6	10
75	An extensible and tunable full-opaque cascade smart electrochromic device. Solar Energy Materials and Solar Cells, 2020, 218, 110740.	3.0	10
76	Phosphine Complexes of Platinum(II) Cycloplatinated Ferrocenylamines. Inorganic Chemistry, 1994, 33, 5343-5350.	1.9	9
77	Monitoring ECE transformations of metal carbonyls by in situ spectroelectrochemistry; SNIFTIRS of [Co3(CO)9C]2. Journal of Organometallic Chemistry, 1999, 582, 183-187.	0.8	9
78	Reactions of HCCo3(CO)9 with silanes; synthesis and electrochemistry of X[SiMe2CCo3(CO)9]2 (X=O,) Tj ETQq0 0 0 rgBT /Overlock 10	1.2	8
79	Infrared spectroelectrochemistry of [Co3(CPh)(CO)9] in methanol at a platinum electrode. Journal of the Chemical Society Dalton Transactions, 1998, , 2855-2860.	1.1	8
80	Charge Transport in Photoanodes Constructed with Mesoporous TiO₂ Beads for Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16635-16642.	1.5	8
81	Passivation by pyridine-induced PbI₂ in methylammonium lead iodide perovskites. RSC Advances, 2020, 10, 23829-23833.	1.7	8
82	Charge Transport and Recombination in Dye-Sensitized Solar Cells on Plastic Substrates. Journal of Physical Chemistry C, 2014, 118, 15154-15161.	1.5	7
83	Light intensity modulated photoluminescence for rapid series resistance mapping of perovskite solar cells. Nano Energy, 2020, 73, 104755.	8.2	6
84	Dual Photolytic Pathways in an Alloyed Plasmonic Near-Perfect Absorber: Implications for Photoelectrocatalysis. ACS Applied Nano Materials, 2021, 4, 2702-2712.	2.4	5
85	Increasing Cycle Life of Nickel Hydroxide Electrodes at High Currents. ECS Transactions, 2006, 2, 105-116.	0.3	4
86	Visualisierung der Phasensegregation in Gemischthalogenidâ€•Perowskiteinkristallen. Angewandte Chemie, 2019, 131, 2919-2924.	1.6	4
87	Tunable transition metal complexes as hole transport materials for stable perovskite solar cells. Chemical Communications, 2021, 57, 2093-2096.	2.2	4
88	Water-soluble Co3C and Co2C2 clusters; redox chemistry and electrochemical reactions in water. Journal of the Chemical Society Dalton Transactions, 1994, , 2821.	1.1	3
89	Frequency Response Analysis of the Potential Modulated Microwave Reflectivity Response of p-Type Silicon During Anodic Dissolution in Ammonium Fluoride Solutions. Zeitschrift Fur Physikalische Chemie, 2003, 217, 333-350.	1.4	1
90	Electron Transport Materials: Inorganic Electron Transport Materials in Perovskite Solar Cells (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	7.8	1

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91	Solution processing of next-generation nanocrystal solar cells. , 2013, , .		0