Alison Downard

List of Publications by Year
in descending order

80 papers	3,526 citations	136950 32 h-index	138484 58 g-index
93 all docs	93 docs citations	93 times ranked	2745 citing authors

#	Article	IF	Citations
1	Building Tailored Interfaces through Covalent Coupling Reactions at Layers Grafted from Aryldiazonium Salts. ACS Applied Materials & Interfaces, 2021, 13, 11545-11570.	8.0	21
2	Electroreduction of Aryldiazonium Ion at the Polar and Nonâ€Polar Faces of ZnO: Characterisation of the Grafted Films and Their Influence on Nearâ€Surface Band Bending. ChemPhysChem, 2021, 22, 1344-1351.	2.1	3
3	Immobilisation of Iron Porphyrin from an Equilibrium Solution with Diazoniumâ€Functionalised Axial Ligand: Dependence of Film Composition on Grafting Potential. ChemElectroChem, 2021, 8, 3105-3112.	3.4	1
4	Para-Fluoro-Thiol Reaction on Anchor Layers Grafted from an Aryldiazonium Salt: A Tool for Surface Functionalization with Thiols. Langmuir, 2021, 37, 11397-11405.	3.5	3
5	Bidirectional Control of the Band Bending at the (2Ì…01) and (010) Surfaces of Î²-Ga₂O₃ Using Aryldiazonium Ion and Phosphonic Acid Grafting. ACS Applied Electronic Materials, 2021, 3, 5608-5620.	4.3	4
6	Relationship between the hydroxyl termination and band bending at <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mover) Tj ETQq0 0 0 rgB mathvariant="normal">G</mml:mi><mml:msub><mml:mi mathvariant="normal">a</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi>, Physical Review B, 2020, 102, .	3.2	16
7	The effect of covalently bonded aryl layers on the band bending and electron density of SnO₂ surfaces probed by synchrotron X-ray photoelectron spectroscopy. Physical Chemistry Chemical Physics, 2019, 21, 17913-17922.	2.8	11
8	Simultaneous Electroâ€Click and Electrochemically Mediated Polymerization Reactions for Oneâ€Pot Grafting from a Controlled Density of Anchor Sites. ChemElectroChem, 2019, 6, 5149-5154.	3.4	6
9	Size-controlled, high optical quality ZnO nanowires grown using colloidal Au nanoparticles and ultra-small cluster catalysts. APL Materials, 2019, 7, 022518.	5.1	5
10	Measuring the Capacitance at Few- and Many-Layered Graphene Electrodes in Aqueous Acidic Solutions. Journal of Physical Chemistry C, 2018, 122, 6103-6108.	3.1	5
11	Controlled Spacing of Few-Layer Graphene Sheets Using Molecular Spacers: Capacitance That Scales with Sheet Number. ACS Applied Nano Materials, 2018, 1, 1420-1429.	5.0	7
12	Synchrotron X-ray Photoelectron Spectroscopy Study of Electronic Changes at the ZnO Surface Following Aryldiazonium Ion Grafting: A Metal-to-Insulator Transition. Journal of Physical Chemistry C, 2018, 122, 12681-12693.	3.1	22
13	Electrowetting on conductors: anatomy of the phenomenon. Faraday Discussions, 2017, 199, 49-61.	3.2	15
14	Controlling Grafting from Aryldiazonium Salts: A Review of Methods for the Preparation of Monolayers. Australian Journal of Chemistry, 2017, 70, 960.	0.9	39
15	Dielsâ€“Alder Reaction of Anthranilic Acids: A Versatile Route to Dense Monolayers on Flat Edge and Basal Plane Graphitic Carbon Substrates. ACS Applied Materials & Interfaces, 2016, 8, 23389-23395.	8.0	8
16	Reduction of Nitrophenyl Films in Aqueous Solutions: How Many Electrons?. ChemElectroChem, 2016, 3, 2021-2026.	3.4	10
17	Tuning the Band Bending and Controlling the Surface Reactivity at Polar and Nonpolar Surfaces of ZnO through Phosphonic Acid Binding. ACS Applied Materials & Interfaces, 2016, 8, 31392-31402.	8.0	23
18	Electrografting of 4-Nitrobenzenediazonium Ion at Carbon Electrodes: Catalyzed and Uncatalyzed Reduction Processes. Langmuir, 2016, 32, 468-476.	3.5	35

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19	Spontaneous Modification of Free-Floating Few-Layer Graphene by Aryldiazonium Ions: Electrochemistry, Atomic Force Microscopy, and Infrared Spectroscopy from Grafted Films. Journal of Physical Chemistry C, 2016, 120, 7543-7552.	3.1	17
20	Electrografting via Diazonium Chemistry: The Key Role of the Aryl Substituent in the Layer Growth Mechanism. Journal of Physical Chemistry C, 2016, 120, 4423-4429.	3.1	87
21	Multifunctional and Stable Monolayers on Carbon: A Simple and Reliable Method for Backfilling Sparse Layers Grafted from Protected Aryldiazonium Ions. Langmuir, 2016, 32, 2626-2637.	3.5	23
22	Carbon nanotube diameter control via catalytic Co nanoparticles electrodeposited in porous alumina membranes. RSC Advances, 2015, 5, 25747-25754.	3.6	9
23	Boronâ€Doped Diamond Dualâ€Plate Deepâ€Microtrench Device for Generatorâ€Collector Sulfide Sensing. Electroanalysis, 2015, 27, 2645-2653.	2.9	6
24	Amine-Terminated Monolayers on Carbon: Preparation, Characterization, and Coupling Reactions. Langmuir, 2015, 31, 5071-5077.	3.5	47
25	Evidence of monolayer formation via diazonium grafting with a radical scavenger: electrochemical, AFM and XPS monitoring. Physical Chemistry Chemical Physics, 2015, 17, 13137-13142.	2.8	60
26	Quantum Capacitance of Aryldiazonium Modified Large Area Few-Layer Graphene Electrodes. Journal of Physical Chemistry C, 2015, 119, 25778-25785.	3.1	25
27	Evidence for covalent bonding of aryl groups to MnO₂ nanorods from diazonium-based grafting. Chemical Communications, 2014, 50, 13687-13690.	4.1	33
28	Scanning Tunneling and Atomic Force Microscopy Evidence for Covalent and Noncovalent Interactions between Aryl Films and Highly Ordered Pyrolytic Graphite. Journal of Physical Chemistry C, 2014, 118, 5820-5826.	3.1	28
29	Preparation of ferrocene-terminated layers by direct reaction with glassy carbon: a comparison of methods. Journal of Solid State Electrochemistry, 2014, 18, 3369-3378.	2.5	6
30	Covalently Anchored Carboxyphenyl Monolayer via Aryldiazonium Ion Grafting: A Well-Defined Reactive Tether Layer for On-Surface Chemistry. Langmuir, 2014, 30, 7104-7111.	3.5	37
31	Formation of Thick Aminophenyl Films from Aminobenzenediazonium Ion in the Absence of a Reduction Source. Langmuir, 2014, 30, 4989-4996.	3.5	15
32	Electrochemical detection of intracellular and cell membrane redox systems in Saccharomyces cerevisiae. Scientific Reports, 2014, 4, 5216.	3.3	76
33	Surface Patterning Using Twoâ€Phase Laminar Flow and Inâ€…Situ Formation of Aryldiazonium Salts. Angewandte Chemie - International Edition, 2013, 52, 10261-10264.	13.8	21
34	Mixed Monolayer Organic Films via Sequential Electrografting from Aryldiazonium Ion and Arylhydrazine Solutions. Langmuir, 2013, 29, 3133-3139.	3.5	29
35	Growth of Carbon Nanotubes on Mesoporous Silica Coated Planar and Three-Dimensional Surfaces. Materials Research Society Symposia Proceedings, 2013, 1505, 1.	0.1	0
36	Surface Patterning Using Twoâ€Phase Laminar Flow and Inâ€…Situ Formation of Aryldiazonium Salts. Angewandte Chemie, 2013, 125, 10451-10454.	2.0	3

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37	The stability of diazonium ion terminated films on glassy carbon and gold electrodes. Electrochemistry Communications, 2012, 19, 67-69.	4.7	21
38	HKUST-1 growth on glassy carbon. Journal of Materials Chemistry, 2011, 21, 19207.	6.7	14
39	Design of Robust Binary Film onto Carbon Surface Using Diazonium Electrochemistry. Langmuir, 2011, 27, 11222-11228.	3.5	47
40	Voltammetric and Electrochemical Impedance Study of Ferrocenyl Containing Î²-Peptide Monolayers on Gold. Journal of Physical Chemistry C, 2011, 115, 7516-7526.	3.1	15
41	Reproducible Fabrication of Robust, Renewable Vertically Aligned Multiwalled Carbon Nanotube/Epoxy Composite Electrodes. Analytical Chemistry, 2011, 83, 8347-8351.	6.5	11
42	Spontaneous Grafting of Nitrophenyl Groups to Planar Glassy Carbon Substrates: Evidence for Two Mechanisms. Journal of Physical Chemistry C, 2011, 115, 6629-6634.	3.1	55
43	Nickel (II) tetraphenylporphyrin modified surfaces via electrografting of an aryldiazonium salt. Electrochemistry Communications, 2011, 13, 1236-1239.	4.7	29
44	Selective Simultaneous Determination of Paracetamol and Uric Acid Using a Glassy Carbon Electrode Modified with Multiwalled Carbon Nanotube/Chitosan Composite. Electroanalysis, 2011, 23, 417-423.	2.9	32
45	Electrochemical detection of oestrogen binding protein interaction with oestrogen in Candida albicans cell lysate. Biosensors and Bioelectronics, 2011, 26, 3737-3741.	10.1	7
46	Diazonium salt derivatives of osmium bipyridine complexes: Electrochemical grafting and characterisation of modified surfaces. Electrochimica Acta, 2011, 56, 2213-2220.	5.2	21
47	Dependence of catalytic activity and long-term stability of enzyme hydrogel films on curing time. Bioelectrochemistry, 2010, 79, 142-146.	4.6	13
48	Chemically immobilised carbon nanotubes on silicon: Stable surfaces for aqueous electrochemistry. Electrochimica Acta, 2010, 55, 3995-4001.	5.2	21
49	Two-Component Mixed and Patterned Films on Carbon Surfaces through the Photografting of Arylazides. Langmuir, 2010, 26, 7285-7292.	3.5	21
50	Robust Forests of Vertically Aligned Carbon Nanotubes Chemically Assembled on Carbon Substrates. Langmuir, 2010, 26, 1848-1854.	3.5	40
51	Patterning of Metal, Carbon, and Semiconductor Substrates with Thin Organic Films by Microcontact Printing with Aryldiazonium Salt Inks. Analytical Chemistry, 2010, 82, 7027-7034.	6.5	46
52	Electrochemical stability of citrate-capped gold nanoparticles electrostatically assembled on amine-modified glassy carbon. Electrochimica Acta, 2009, 54, 5566-5570.	5.2	29
53	Direct growth of vertically aligned carbon nanotubes on a planar carbon substrate by thermal chemical vapour deposition. Carbon, 2009, 47, 500-506.	10.3	38
54	Reaction of Gold Substrates with Diazonium Salts in Acidic Solution at Open-Circuit Potential. Langmuir, 2009, 25, 13503-13509.	3.5	72

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55	Nanoscale films covalently attached to conducting substrates: structure and dynamic behaviour of the layers. International Journal of Nanotechnology, 2009, 6, 233.	0.2	11
56	Covalent modification of graphitic carbon substrates by non-electrochemical methods. Journal of Solid State Electrochemistry, 2008, 12, 1231-1244.	2.5	155
57	Exploration of variables in the fabrication of pyrolysed photoresist. Journal of Solid State Electrochemistry, 2008, 12, 1357-1365.	2.5	22
58	Improved stability of redox enzyme layers on glassy carbon electrodes via covalent grafting. Electrochemistry Communications, 2008, 10, 835-838.	4.7	65
59	Grafting Aryl Diazonium Cations to Polycrystalline Gold:â€‰ Insights into Film Structure Using Gold Oxide Reduction, Redox Probe Electrochemistry, and Contact Angle Behavior. Journal of Physical Chemistry C, 2007, 111, 7808-7815.	3.1	84
60	An Electrochemical and XPS Study of Reduction of Nitrophenyl Films Covalently Grafted to Planar Carbon Surfaces. Langmuir, 2007, 23, 11074-11082.	3.5	132
61	Photochemical Grafting and Activation of Organic Layers on Glassy Carbon and Pyrolyzed Photoresist Films. Langmuir, 2007, 23, 4662-4668.	3.5	40
62	Microcontact Printing Using the Spontaneous Reduction of Aryldiazonium Salts. Journal of the American Chemical Society, 2007, 129, 15456-15457.	13.7	69
63	SECM imaging of micropatterned organic films on carbon surfaces. Electrochemistry Communications, 2007, 9, 2387-2392.	4.7	11
64	Are redox probes a useful indicator of film stability? An electrochemical, AFM and XPS study of electrografted amine films on carbon. Electrochemistry Communications, 2007, 9, 1456-1462.	4.7	49
65	Controlled assembly of gold nanoparticles on carbon surfaces. New Journal of Chemistry, 2006, 30, 1283.	2.8	46
66	Microscale Patterning of Organic Films on Carbon Surfaces Using Electrochemistry and Soft Lithography. Langmuir, 2006, 22, 10739-10746.	3.5	62
67	Development and application of diffusive gradients in thin films for determining inorganic arsenic concentrations in natural waters. Diqiu Huaxue, 2006, 25, 206-206.	0.5	0
68	Fluorescence Microscopy Study of Protein Adsorption at Modified Glassy Carbon Surfaces. Australian Journal of Chemistry, 2005, 58, 275.	0.9	21
69	Effect of Applied Potential on Arylmethyl Films Oxidatively Grafted to Carbon Surfaces. Langmuir, 2005, 21, 11304-11311.	3.5	56
70	Multilayer Nitroazobenzene Films Covalently Attached to Carbon. An AFM and Electrochemical Study. Journal of Physical Chemistry B, 2005, 109, 8791-8798.	2.6	126
71	Nanoscale Patterning of Flat Carbon Surfaces by Scanning Probe Lithography and Electrochemistry. Langmuir, 2005, 21, 1672-1675.	3.5	72
72	Dynamic Behavior of Organic Thin Films Attached to Carbon Surfaces. E-Journal of Surface Science and Nanotechnology, 2005, 3, 294-298.	0.4	15

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73	Electrochemical and Atomic Force Microscopy Study of Carbon Surface Modification via Diazonium Reduction in Aqueous and Acetonitrile Solutions. Langmuir, 2004, 20, 5038-5045.	3.5	382
74	Stability Constants for Aluminum(III) Complexes with the 1,2-Dihydroxyaryl Ligands Caffeic Acid, Chlorogenic Acid, DHB, and DASA in Aqueous Solution. Journal of Chemical & Engineering Data, 2002, 47, 289-296.	1.9	37
75	Barrier Properties of Organic Monolayers on Glassy Carbon Electrodes. Langmuir, 2001, 17, 5581-5586.	3.5	98
76	Electrochemically Assisted Covalent Modification of Carbon Electrodes. Electroanalysis, 2000, 12, 1085-1096.	2.9	458
77	Potential-Dependence of Self-Limited Films Formed by Reduction of Aryldiazonium Salts at Glassy Carbon Electrodes. Langmuir, 2000, 16, 9680-9682.	3.5	96
78	Electrochemically Assisted Covalent Modification of Carbon Electrodes. , 2000, 12, 1085.		4
79	Controlling the selectivity of glassy carbon flow detectors using covalently attached monolayers. Electroanalysis, 1997, 9, 693-698.	2.9	22
80	Protein adsorption at glassy carbon electrodes: The effect of covalently bound surface groups. Electroanalysis, 1995, 7, 376-378.	2.9	85