Nadim Darwish

List of Publications by Year
in descending order

73 papers	3,191 citations	172386 29 h-index	155592 55 g-index
74 all docs	74 docs citations	74 times ranked	3329 citing authors

#	Article	IF	Citations
1	Non-Ideal Cyclic Voltammetry of Redox Monolayers on Silicon Electrodes: Peak Splitting is Caused by Heterogeneous Photocurrents and Not by Molecular Disorder. Langmuir, 2022, 38, 743-750.	1.6	1
2	Sliding silicon-based Schottky diodes: Maximizing triboelectricity with surface chemistry. Nano Energy, 2022, 93, 106861.	8.2	15
3	Effect of Electric Fields on Silicon-Based Monolayers. Langmuir, 2022, 38, 2986-2992.	1.6	7
4	Electrochemical Detection of Dinitrobenzene on Silicon Electrodes: Toward Explosives Sensors. Surfaces, 2022, 5, 218-227.	1.0	4
5	Electrochemically fabricated moleculeâ€“electrode contacts for molecular electronics. Current Opinion in Electrochemistry, 2022, 34, 101019.	2.5	9
6	Memristor Arrays Formed by Reversible Formation and Breakdown of Nanoscale Silica Layers on Siâ€“H Surfaces. ACS Applied Nano Materials, 2022, 5, 6609-6617.	2.4	10
7	On-Surface Azideâ€“Alkyne Cycloaddition Reaction: Does It Click with Ruthenium Catalysts?. Langmuir, 2022, 38, 5532-5541.	1.6	7
8	Continuous flow fabrication of green graphene oxide in aqueous hydrogen peroxide. Nanoscale Advances, 2022, 4, 3121-3130.	2.2	7
9	Electro-polymerization rates of diazonium salts are dependent on the crystal orientation of the surface. Journal of Colloid and Interface Science, 2022, 626, 985-994.	5.0	3
10	Ultrasonic Generation of Thiyl Radicals: A General Method of Rapidly Connecting Molecules to a Range of Electrodes for Electrochemical and Molecular Electronics Applications. ACS Sensors, 2021, 6, 573-580.	4.0	15
11	Spontaneous Grafting of OH-Terminated Molecules on Siâˆ’H Surfaces via Siâ€“Oâ€“C Covalent Bonding. Surfaces, 2021, 4, 81-88.	1.0	13
12	Absence of a Relationship between Surface Conductivity and Electrochemical Rates: Redox-Active Monolayers on Si(211), Si(111), and Si(110). Journal of Physical Chemistry C, 2021, 125, 18197-18203.	1.5	11
13	Impermeable Graphene Oxide Protects Silicon from Oxidation. ACS Applied Materials & Interfaces, 2021, 13, 38799-38807.	4.0	23
14	Chemical mechanisms, one molecule at a time. Nature Nanotechnology, 2021, 16, 1176-1177.	15.6	4
15	High shear <i>in situ</i> exfoliation of 2D gallium oxide sheets from centrifugally derived thin films of liquid gallium. Nanoscale Advances, 2021, 3, 5785-5792.	2.2	6
16	Common Background Signals in Voltammograms of Crystalline Silicon Electrodes are Reversible Silicaâ€“Silicon Redox Chemistry at Highly Conductive Surface Sites. Journal of the American Chemical Society, 2021, 143, 1267-1272.	6.6	15
17	Experimental Evidence of Long-Lived Electric Fields of Ionic Liquid Bilayers. Journal of the American Chemical Society, 2021, 143, 17431-17440.	6.6	31
18	Silicon âˆ’ single molecule âˆ’ silicon circuits. Chemical Science, 2021, 12, 15870-15881.	3.7	7

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19	Thickness-Dependent Seebeck Coefficient in Hybrid 2-Dimensional layers. , 2021, , .		3
20	Nanoscale Silicon Oxide Reduces Electron Transfer Kinetics of Surface-Bound Ferrocene Monolayers on Silicon. Journal of Physical Chemistry C, 2021, 125, 27763-27770.	1.5	12
21	Static Electrification of Plastics under Friction: The Position of Engineeringâ€Grade Polyethylene Terephthalate in the Triboelectric Series. Advanced Engineering Materials, 2020, 22, 1901201.	1.6	9
22	Spatiotemporal Control of Electrochemiluminescence Guided by a Visible Light Stimulus. Cell Reports Physical Science, 2020, 1, 100107.	2.8	26
23	Covalent Linkages of Molecules and Proteins to Siâ€"H Surfaces Formed by Disulfide Reduction. Langmuir, 2020, 36, 14999-15009.	1.6	22
24	Harnessing silicon facet-dependent conductivity to enhance the direct-current produced by a sliding Schottky diode triboelectric nanogenerator. Nano Energy, 2020, 78, 105210.	8.2	37
25	The corona of a surface bubble promotes electrochemical reactions. Nature Communications, 2020, 11, 6323.	5.8	72
26	Irreproducibility in the triboelectric charging of insulators: evidence of a non-monotonic charge versus contact time relationship. Physical Chemistry Chemical Physics, 2020, 22, 11671-11677.	1.3	10
27	Reduced graphene oxideâ€"silicon interface involving direct Siâ€"O bonding as a conductive and mechanical stable ohmic contact. Chemical Communications, 2020, 56, 6209-6212.	2.2	21
28	Spontaneous Sâ€"Si bonding of alkanethiols to Si(111)â€"H: towards Siâ€"moleculeâ€"Si circuits. Chemical Science, 2020, 11, 5246-5256.	3.7	30
29	Metalâ€"Single-Moleculeâ€"Semiconductor Junctions Formed by a Radical Reaction Bridging Gold and Silicon Electrodes. Journal of the American Chemical Society, 2019, 141, 14788-14797.	6.6	62
30	Chemically and Mechanically Controlled Single-Molecule Switches Using Spiropyrans. ACS Applied Materials & Interfaces, 2019, 11, 36886-36894.	4.0	69
31	Vortex fluidic mediated transformation of graphite into highly conducting graphene scrolls. Nanoscale Advances, 2019, 1, 2495-2501.	2.2	21
32	Electrochemistry on Tribocharged Polymers Is Governed by the Stability of Surface Charges Rather than Charging Magnitude. Journal of the American Chemical Society, 2019, 141, 5863-5870.	6.6	47
33	Single-Electrode Electrochemistry: Chemically Engineering Surface Adhesion and Hardness To Maximize Redox Work Extracted from Tribocharged Silicon. ACS Applied Nano Materials, 2019, 2, 7230-7236.	2.4	16
34	Control over Near-Ballistic Electron Transport through Formation of Parallel Pathways in a Single-Molecule Wire. Journal of the American Chemical Society, 2019, 141, 240-250.	6.6	39
35	Spontaneous Formation of Diazonium Salts Thin Films on Silicon Electrodes. ECS Meeting Abstracts, 2019, , .	0.0	0
36	Electrochemical and Electrostatic Cleavage of Alkoxyamines. Journal of the American Chemical Society, 2018, 140, 766-774.	6.6	129

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37	Nanocrystal Inks: Photoelectrochemical Printing of Cu₂O Nanocrystals on Silicon with 2D Control on Polyhedral Shapes. Advanced Functional Materials, 2018, 28, 1804791.	7.8	24
38	Switchable Interfaces: Redox Monolayers on Si(100) by Electrochemical Trapping of Alcohol Nucleophiles. Surfaces, 2018, 1, 3-11.	1.0	14
39	Harnessing electrostatic catalysis in single molecule, electrochemical and chemical systems: a rapidly growing experimental tool box. Chemical Society Reviews, 2018, 47, 5146-5164.	18.7	207
40	Switching of Current Rectification Ratios within a Single Nanocrystal by Facet-Resolved Electrical Wiring. ACS Nano, 2018, 12, 8071-8080.	7.3	34
41	Single-molecule electrical contacts on silicon electrodes under ambient conditions. Nature Communications, 2017, 8, 15056.	5.8	93
42	Hydrogen evolution during the electrodeposition of gold nanoparticles at Si(100) photoelectrodes impairs the analysis of current-time transients. Electrochimica Acta, 2017, 247, 200-206.	2.6	16
43	Reproducible flaws unveil electrostatic aspects of semiconductor electrochemistry. Nature Communications, 2017, 8, 2066.	5.8	68
44	TEMPO Monolayers on Si(100) Electrodes: Electrostatic Effects by the Electrolyte and Semiconductor Space-Charge on the Electroactivity of a Persistent Radical. Journal of the American Chemical Society, 2016, 138, 9611-9619.	6.6	64
45	Electrostatic catalysis of a Dielsâ€“Alder reaction. Nature, 2016, 531, 88-91.	13.7	596
46	Tuning the electrical conductance of metalloporphyrin supramolecular wires. Scientific Reports, 2016, 6, 37352.	1.6	27
47	Electroconductive Hydrogel Based on Functional Poly(Ethylenedioxy Thiophene). Chemistry of Materials, 2016, 28, 6080-6088.	3.2	96
48	Strategies To Achieve Control over the Surface Ratio of Two Different Components on Modified Electrodes Using Aryldiazonium Salts. Langmuir, 2016, 32, 2509-2517.	1.6	36
49	Ultra-Small Fatty Acid-Stabilized Magnetite Nanocolloids Synthesized by<i>In Situ</i>Hydrolytic Precipitation. Journal of Nanomaterials, 2015, 2015, 1-11.	1.5	6
50	Decoloration rates of a photomerocyanine dye as a visual probe into hydrogen bonding interactions. Chemical Communications, 2015, 51, 4815-4818.	2.2	5
51	Building Nanoscale Molecular Wires Exploiting Electrocatalytic Interactions. Electrochimica Acta, 2015, 179, 611-617.	2.6	19
52	Fineâ€Tuning of Singleâ€Molecule Conductance by Tweaking Both Electronic Structure and Conformation of Side Substituents. Chemistry - A European Journal, 2015, 21, 7716-7720.	1.7	33
53	Nucleic-acid recognition interfaces: how the greater ability of RNA duplexes to bend towards the surface influences electrochemical sensor performance. Chemical Communications, 2015, 51, 16526-16529.	2.2	10
54	The spontaneous formation of single-molecule junctions via terminal alkynes. Nanotechnology, 2015, 26, 381001.	1.3	35

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55	The impact of surface coverage on the kinetics of electron transfer through redox monolayers on a silicon electrode surface. Electrochimica Acta, 2015, 186, 216-222.	2.6	33
56	Multi-Responsive Photo- and Chemo-Electrical Single-Molecule Switches. Nano Letters, 2014, 14, 7064-7070.	4.5	134
57	Investigation of the Antifouling Properties of Phenyl Phosphorylcholineâ€Based Modified Gold Surfaces. Electroanalysis, 2014, 26, 1471-1480.	1.5	23
58	The Effect of Interfacial Design on the Electrochemical Detection of DNA and MicroRNA Using Methylene Blue at Lowâ€Density DNA Films. ChemElectroChem, 2014, 1, 165-171.	1.7	26
59	Surface-Bound Norbornylogous Bridges as Molecular Rulers for Investigating Interfacial Electrochemistry and as Single Molecule Switches. Accounts of Chemical Research, 2014, 47, 385-395.	7.6	30
60	Highly Conductive Single-Molecule Wires with Controlled Orientation by Coordination of Metalloporphyrins. Nano Letters, 2014, 14, 4751-4756.	4.5	48
61	Distance-Dependent Electron Transfer at Passivated Electrodes Decorated by Gold Nanoparticles. Analytical Chemistry, 2013, 85, 1073-1080.	3.2	91
62	The Influence of Organicâ€Film Morphology on the Efficient Electron Transfer at Passivated Polymerâ€Modified Electrodes to which Nanoparticles are Attached. ChemPhysChem, 2013, 14, 2190-2197.	1.0	14
63	Redox-Active Monolayers in Mesoporous Silicon. Journal of Physical Chemistry C, 2012, 116, 16080-16088.	1.5	16
64	Single Molecular Switches: Electrochemical Gating of a Single Anthraquinone-Based Norbornylogous Bridge Molecule. Journal of Physical Chemistry C, 2012, 116, 21093-21097.	1.5	66
65	Surface-Bound Molecular Rulers for Probing the Electrical Double Layer. Journal of the American Chemical Society, 2012, 134, 7539-7544.	6.6	40
66	Probing the Effect of the Solution Environment around Redox-Active Moieties Using Rigid Anthraquinone Terminated Molecular Rulers. Journal of the American Chemical Society, 2012, 134, 18401-18409.	6.6	40
67	Studies on the Effect of Solvents on Self-Assembled Monolayers Formed from Organophosphonic Acids on Indium Tin Oxide. Langmuir, 2012, 28, 9487-9495.	1.6	64
68	The rise of selfâ€assembled monolayers for fabricating electrochemical biosensorsâ€"an interfacial perspective. Chemical Record, 2012, 12, 92-105.	2.9	62
69	Observation of Electrochemically Controlled Quantum Interference in a Single Anthraquinoneâ€Based Norbornylogous Bridge Molecule. Angewandte Chemie - International Edition, 2012, 51, 3203-3206.	7.2	150
70	Electroactive Selfâ€Assembled Monolayers of Unique Geometric Structures by Using Rigid Norbornylogous Bridges. Chemistry - A European Journal, 2012, 18, 283-292.	1.7	15
71	Oxidative acetylenic coupling reactions as a surface chemistry tool. Physical Chemistry Chemical Physics, 2011, 13, 15624.	1.3	16
72	Importance of the Indium Tin Oxide Substrate on the Quality of Self-Assembled Monolayers Formed from Organophosphonic Acids. Langmuir, 2011, 27, 2545-2552.	1.6	73

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73	Reversible potential-induced structural changes of alkanethiol monolayers on gold surfaces. Electrochemistry Communications, 2011, 13, 387-390.	2.3	29