Neil R Wilson

List of Publications by Year
in descending order

86 papers	6,567 citations	71102 41 h-index	62596 80 g-index
89 all docs	89 docs citations	89 times ranked	11210 citing authors

#	Article	IF	Citations
1	From graphene to graphene oxide: the importance of extended topological defects. Physical Chemistry Chemical Physics, 2022, 24, 2318-2331.	2.8	18
2	Atomic and electronic structure of two-dimensional Mo_{(1âˆ’} _x)W _x S₂ alloys. JPhys Materials, 2021, 4, 025004.	4.2	7
3	Ghost anti-crossings caused by interlayer umklapp hybridization of bands in 2D heterostructures. 2D Materials, 2021, 8, 015016.	4.4	8
4	Field-Dependent Band Structure Measurements in Two-Dimensional Heterostructures. Nano Letters, 2021, , .	9.1	2
5	Adiabatic versus non-adiabatic electron transfer at 2D electrode materials. Nature Communications, 2021, 12, 7110.	12.8	24
6	Artificial Optoelectronic Synapses Based on Ferroelectric Field-Effect Enabled 2D Transition Metal Dichalcogenide Memristive Transistors. ACS Nano, 2020, 14, 746-754.	14.6	190
7	Ultra-thin van der Waals crystals as semiconductor quantum wells. Nature Communications, 2020, 11, 125.	12.8	33
8	Atomic reconstruction in twisted bilayers of transition metal dichalcogenides. Nature Nanotechnology, 2020, 15, 592-597.	31.5	245
9	Visualizing electrostatic gating effects in two-dimensional heterostructures. Nature, 2019, 572, 220-223.	27.8	135
10	Indirect to Direct Gap Crossover in Two-Dimensional InSe Revealed by Angle-Resolved Photoemission Spectroscopy. ACS Nano, 2019, 13, 2136-2142.	14.6	63
11	Determination of band offsets, hybridization, and exciton binding in 2D semiconductor heterostructures. Science Advances, 2017, 3, e1601832.	10.3	293
12	1D vs. 2D shape selectivity in the crystallization-driven self-assembly of polylactide block copolymers. Chemical Science, 2017, 8, 4223-4230.	7.4	165
13	Thermochemical functionalisation of graphenes with minimal framework damage. Chemical Science, 2017, 8, 6149-6154.	7.4	4
14	Non-covalent functionalization of graphene with a hydrophilic self-limiting monolayer for macro-molecule immobilization. FlatChem, 2017, 1, 52-56.	5.6	12
15	Monolayer-to-thin-film transition in supramolecular assemblies: the role of topological protection. Nanoscale, 2017, 9, 11959-11968.	5.6	16
16	Impact of sequential surface-modification of graphene oxide on ice nucleation. Physical Chemistry Chemical Physics, 2017, 19, 21929-21932.	2.8	20
17	<i>In situ</i> gas analysis during the growth of hexagonal boron nitride from ammonia borane. Materials Research Express, 2017, 4, 115905.	1.6	5
18	Superacid-Treated Silicon Surfaces: Extending the Limit of Carrier Lifetime for Photovoltaic Applications. IEEE Journal of Photovoltaics, 2017, 7, 1574-1583.	2.5	40

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19	Growth of Large Crystalline Grains of Vanadylâ€Phthalocyanine without Epitaxy on Graphene. Advanced Functional Materials, 2016, 26, 1188-1196.	14.9	9
20	Controlled electrochemical and electroless deposition of noble metal nanoparticles on graphene. RSC Advances, 2016, 6, 73790-73796.	3.6	17
21	Effect of the orientation of graphene-based nanoplatelets upon the Young's modulus of nanocomposites. Composites Science and Technology, 2016, 123, 125-133.	7.8	137
22	Letter to the Editor: A defence of the two-component model of graphene oxide. Carbon, 2016, 96, 339-341.	10.3	18
23	High Broadâ€Band Photoresponsivity of Mechanically Formed InSeâ€"Graphene van der Waals Heterostructures. Advanced Materials, 2015, 27, 3760-3766.	21.0	320
24	Ligandâ€Induced Control of Photoconductive Gain and Doping in a Hybrid Grapheneâ€"Quantum Dot Transistor. Advanced Electronic Materials, 2015, 1, 1500062.	5.1	59
25	Covalently Binding Atomically Designed Au₉ Clusters to Chemically Modified Graphene. Angewandte Chemie - International Edition, 2015, 54, 9560-9563.	13.8	18
26	van der Waals epitaxy of monolayer hexagonal boron nitride on copper foil: growth, crystallography and electronic band structure. 2D Materials, 2015, 2, 025003.	4.4	51
27	Graphene oxide single sheets as substrates for high resolution cryoTEM. Soft Matter, 2015, 11, 1265-1270.	2.7	26
28	Covalent modification of exfoliated fluorographite with nitrogen functionalities. Journal of Materials Chemistry C, 2015, 3, 7627-7631.	5.5	29
29	Effect of oxygen and nitrogen functionalization on the physical and electronic structure of graphene. Nano Research, 2015, 8, 2620-2635.	10.4	47
30	Electrical properties and strain distribution of Ge suspended structures. Solid-State Electronics, 2015, 108, 13-18.	1.4	2
31	Quantitative Nanoscale Mapping with Temperature Dependence of the Mechanical and Electrical Properties of Poly(3-hexylthiophene) by Conductive Atomic Force Microscopy. Journal of Physical Chemistry C, 2015, 119, 11459-11467.	3.1	21
32	Quantitative determination of the spatial orientation of graphene by polarized Raman spectroscopy. Carbon, 2015, 88, 215-224.	10.3	80
33	One-step grafting of polymers to graphene oxide. Polymer Chemistry, 2015, 6, 8270-8274.	3.9	34
34	Reproducible, stable and fast electrochemical activity from easy to make graphene on copper electrodes. Physical Chemistry Chemical Physics, 2015, 17, 29628-29636.	2.8	22
35	Adsorbate-Induced Curvature and Stiffening of Graphene. Nano Letters, 2015, 15, 159-164.	9.1	24
36	Multimodal microscopy using â€˜half and halfâ€™ contact mode and ultrasonic force microscopy. Nanotechnology, 2014, 25, 335708.	2.6	4

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37	Structural reorganization of cylindrical nanoparticles triggered by polylactide stereocomplexation. Nature Communications, 2014, 5, 5746.	12.8	125
38	High quality single crystal Ge nano-membranes for opto-electronic integrated circuitry. Journal of Applied Physics, 2014, 115, .	2.5	7
39	Tensile strain mapping in flat germanium membranes. Applied Physics Letters, 2014, 104, .	3.3	11
40	Size-dependent mobility of gold nano-clusters during growth on chemically modified graphene. APL Materials, 2014, 2, .	5.1	12
41	Single stage electrochemical exfoliation method for the production of few-layer graphene via intercalation of tetraalkylammonium cations. Carbon, 2014, 66, 340-350.	10.3	215
42	A nanoscopic approach to studying evolution in graphene wettability. Carbon, 2014, 80, 784-792.	10.3	64
43	Sulfurâ€Functionalized Graphene Oxide by Epoxide Ringâ€Opening. Angewandte Chemie - International Edition, 2014, 53, 7613-7618.	13.8	130
44	Ultra low energy O₂⁺ SIMS depth profiling of superficial poly(CuPc) and Co(II)T(oâ€NH2)PP monomolecular layers. Surface and Interface Analysis, 2013, 45, 324-328.	1.8	0
45	Pd-doped reduced graphene oxide sensing films for H2 detection. Sensors and Actuators B: Chemical, 2013, 183, 478-487.	7.8	95
46	Is graphene on copper doped?. Physica Status Solidi - Rapid Research Letters, 2013, 7, 643-646.	2.4	30
47	Weak mismatch epitaxy and structural Feedback in graphene growth on copper foil. Nano Research, 2013, 6, 99-112.	10.4	73
48	Deoxygenation of Graphene Oxide: Reduction or Cleaning?. Chemistry of Materials, 2013, 25, 3580-3588.	6.7	198
49	Graphene oxide and base-washed graphene oxide as reinforcements in PMMA nanocomposites. Composites Science and Technology, 2013, 88, 158-164.	7.8	71
50	A new approach to high resolution, high contrast electron microscopy of macromolecular block copolymer assemblies. Soft Matter, 2013, 9, 3741.	2.7	12
51	Identifying the fluorescence of graphene oxide. Journal of Materials Chemistry C, 2013, 1, 338-342.	5.5	112
52	Friction force microscopy: a simple technique for identifying graphene on rough substrates and mapping the orientation of graphene grains on copper. Nanotechnology, 2013, 24, 255704.	2.6	49
53	Robust signatures in the currentâ€"voltage characteristics of DNA molecules oriented between two graphene nanoribbon electrodes. New Journal of Physics, 2012, 14, 093049.	2.9	23
54	A simple approach to characterizing block copolymer assemblies: graphene oxide supports for high contrast multi-technique imaging. Soft Matter, 2012, 8, 3322.	2.7	65

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55	Resolving the Nanoscale Morphology and Crystallographic Structure of Molecular Thin Films: F₁₆CuPc on Graphene Oxide. Chemistry of Materials, 2012, 24, 1365-1370.	6.7	30
56	Physical Vapor Deposition of Metal Nanoparticles on Chemically Modified Graphene: Observations on Metalâ€“Graphene Interactions. Small, 2011, 7, 3202-3210.	10.0	109
57	Silverâ€decorated carbon nanotube networks as SERS substrates. Journal of Raman Spectroscopy, 2011, 42, 1255-1262.	2.5	21
58	The Real Graphene Oxide Revealed: Stripping the Oxidative Debris from the Grapheneâ€like Sheets. Angewandte Chemie - International Edition, 2011, 50, 3173-3177.	13.8	569
59	On the structure and topography of free-standing chemically modified graphene. New Journal of Physics, 2010, 12, 125010.	2.9	49
60	Imaging the Structure, Symmetry, and Surface-Inhibited Rotation of Polyoxometalate Ions on Graphene Oxide. Nano Letters, 2010, 10, 4600-4606.	9.1	51
61	Interface characteristics of n-n and p-n Ge/SiC heterojunction diodes formed by molecular beam epitaxy deposition. Journal of Applied Physics, 2010, 107, .	2.5	16
62	Carbon nanotube tips for atomic force microscopy. Nature Nanotechnology, 2009, 4, 483-491.	31.5	222
63	Graphene Oxide: Structural Analysis and Application as a Highly Transparent Support for Electron Microscopy. ACS Nano, 2009, 3, 2547-2556.	14.6	629
64	Single-Walled Carbon Nanotube Network Ultramicroelectrodes. Analytical Chemistry, 2008, 80, 3598-3605.	6.5	55
65	Tip-Modulation Scanned Gate Microscopy. Nano Letters, 2008, 8, 2161-2165.	9.1	19
66	In-Situ Atomic Force Microscopy (AFM) Imaging: Influence of AFM Probe Geometry on Diffusion to Microscopic Surfaces. Langmuir, 2008, 24, 12867-12876.	3.5	30
67	Characterization of n-n Ge/SiC heterojunction diodes. Applied Physics Letters, 2008, 93, 112104.	3.3	9
68	One-step formation of ultra-thin chemically functionalized redox-active Langmuirâ€“Schaefer Nafion films. Soft Matter, 2007, 3, 1300.	2.7	19
69	Functionalizing Single-Walled Carbon Nanotube Networks:â€‰ Effect on Electrical and Electrochemical Properties. Journal of Physical Chemistry C, 2007, 111, 12944-12953.	3.1	69
70	Growth of dilute nitride alloys of GaInSb lattice-matched to GaSb. Journal of Crystal Growth, 2007, 304, 338-341.	1.5	8
71	Controlled Growth and Characterization of Two-Dimensional Single-Walled Carbon-Nanotube Networks for Electrical Applications. Small, 2007, 3, 860-870.	10.0	46
72	Single-Walled Carbon Nanotube Networks Decorated with Silver Nanoparticles:â€‰ A Novel Graded SERS Substrate. Journal of Physical Chemistry C, 2007, 111, 16167-16173.	3.1	100

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73	Electron beam lithographically-defined scanning electrochemical-atomic force microscopy probes: fabrication method and application to high resolution imaging on heterogeneously active surfaces. Physical Chemistry Chemical Physics, 2006, 8, 3909.	2.8	27
74	Assessment of the Electrochemical Behavior of Two-Dimensional Networks of Single-Walled Carbon Nanotubes. Analytical Chemistry, 2006, 78, 7006-7015.	6.5	31
75	Impact of Grain-Dependent Boron Uptake on the Electrochemical and Electrical Properties of Polycrystalline Boron Doped Diamond Electrodes. Journal of Physical Chemistry B, 2006, 110, 5639-5646.	2.6	137
76	Examination of the Spatially Heterogeneous Electroactivity of Boron-Doped Diamond Microarray Electrodes. Analytical Chemistry, 2006, 78, 2539-2548.	6.5	77
77	Formation of polyaniline/Pt nanoparticle composite films and their electrocatalytic properties. Journal of Solid State Electrochemistry, 2006, 10, 792-807.	2.5	52
78	Formation of polyaniline/Pt nanoparticle composite films and their electrocatalytic properties. Journal of Solid State Electrochemistry, 2006, 10, 792-807.	2.5	3
79	Growth of dilute GaNSb by plasma-assisted MBE. Journal of Crystal Growth, 2005, 278, 188-192.	1.5	31
80	Electrochemical Templating of Metal Nanoparticles and Nanowires on Single-Walled Carbon Nanotube Networks. Journal of the American Chemical Society, 2005, 127, 10639-10647.	13.7	241
81	Composition profiles of InAsâ€“GaAs quantum dots determined by medium-energy ion scattering. Applied Physics Letters, 2005, 87, 153110.	3.3	22
82	Nanowire Probes for High Resolution Combined Scanning Electrochemical Microscopy âˆ' Atomic Force Microscopy. Nano Letters, 2005, 5, 639-643.	9.1	125
83	Enhanced resolution electric force microscopy with single-wall carbon nanotube tips. Journal of Applied Physics, 2004, 96, 3565-3567.	2.5	19
84	Electrochemical and Conductivity Measurements of Single-Wall Carbon Nanotube Network Electrodes. Journal of the American Chemical Society, 2004, 126, 16724-16725.	13.7	45
85	Single-Walled Carbon Nanotubes as Templates for Nanowire Conducting Probes. Nano Letters, 2003, 3, 1365-1369.	9.1	33
86	Single-Wall Carbon Nanotube Conducting Probe Tips. Journal of Physical Chemistry B, 2002, 106, 13102-13105.	2.6	48