Ian A Kinloch

List of Publications by Year
in descending order

120	15,763	30047	19726
papers	citations	54 h-index	117 g-index

121	121	121	20411
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Science and technology roadmap for graphene, related two-dimensional crystals, and hybrid systems. Nanoscale, 2015, 7, 4598-4810.	2.8	2,452
2	Mechanical properties of graphene and graphene-based nanocomposites. Progress in Materials Science, 2017, 90, 75-127.	16.0	1,682
3	The mechanics of graphene nanocomposites: A review. Composites Science and Technology, 2012, 72, 1459-1476.	3.8	1,076
4	Evaluation and identification of electrical and thermal conduction mechanisms in carbon nanotube/epoxy composites. Polymer, 2006, 47, 2036-2045.	1.8	1,004
5	The Real Graphene Oxide Revealed: Stripping the Oxidative Debris from the Grapheneâ€like Sheets. Angewandte Chemie - International Edition, 2011, 50, 3173-3177.	7.2	569
6	Interfacial Stress Transfer in a Graphene Monolayer Nanocomposite. Advanced Materials, 2010, 22, 2694-2697.	11.1	551
7	Characterization of MoS₂â€“Graphene Composites for High-Performance Coin Cell Supercapacitors. ACS Applied Materials & Interfaces, 2015, 7, 17388-17398.	4.0	388
8	Hydroxyapatite?Carbon Nanotube Composites for Biomedical Applications: A Review. International Journal of Applied Ceramic Technology, 2007, 4, 1-13.	1.1	356
9	How to get between the sheets: a review of recent works on the electrochemical exfoliation of graphene materials from bulk graphite. Nanoscale, 2015, 7, 6944-6956.	2.8	320
10	Graphene/elastomer nanocomposites. Carbon, 2015, 95, 460-484.	5.4	308
11	Electrical percolation in grapheneâ€“polymer composites. 2D Materials, 2018, 5, 032003.	2.0	266
12	Optimizing the Reinforcement of Polymer-Based Nanocomposites by Graphene. ACS Nano, 2012, 6, 2086-2095.	7.3	255
13	Mechanisms of mechanical reinforcement by graphene and carbon nanotubes in polymer nanocomposites. Nanoscale, 2020, 12, 2228-2267.	2.8	222
14	The mechanics of reinforcement of polymers by graphene nanoplatelets. Composites Science and Technology, 2018, 154, 110-116.	3.8	221
15	Single stage electrochemical exfoliation method for the production of few-layer graphene via intercalation of tetraalkylammonium cations. Carbon, 2014, 66, 340-350.	5.4	215
16	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.	6.6	211
17	Copper/graphene composites: a review. Journal of Materials Science, 2019, 54, 12236-12289.	1.7	193
18	Screen-Printing of a Highly Conductive Graphene Ink for Flexible Printed Electronics. ACS Applied Materials & Interfaces, 2019, 11, 32225-32234.	4.0	174

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19	A rheological study of concentrated aqueous nanotube dispersions. Polymer, 2002, 43, 7483-7491.	1.8	161
20	Electron Transfer Kinetics on Mono- and Multilayer Graphene. ACS Nano, 2014, 8, 10089-10100.	7.3	160
21	Thermoelectric Power Generation from Lanthanum Strontium Titanium Oxide at Room Temperature through the Addition of Graphene. ACS Applied Materials & Interfaces, 2015, 7, 15898-15908.	4.0	160
22	Electrochemical Behavior of Monolayer and Bilayer Graphene. ACS Nano, 2011, 5, 8809-8815.	7.3	148
23	Interfacial Stress Transfer in Graphene Oxide Nanocomposites. ACS Applied Materials & Interfaces, 2013, 5, 456-463.	4.0	144
24	Deformation of Wrinkled Graphene. ACS Nano, 2015, 9, 3917-3925.	7.3	143
25	Strain Mapping in a Graphene Monolayer Nanocomposite. ACS Nano, 2011, 5, 3079-3084.	7.3	142
26	Nanoscale Mechanics of Graphene and Graphene Oxide in Composites: A Scientific and Technological Perspective. Advanced Materials, 2016, 28, 6232-6238.	11.1	137
27	Effect of the orientation of graphene-based nanoplatelets upon the Young's modulus of nanocomposites. Composites Science and Technology, 2016, 123, 125-133.	3.8	137
28	Pristine Graphene Aerogels by Roomâ€Temperature Freeze Gelation. Advanced Materials, 2016, 28, 7993-8000.	11.1	123
29	Wideâ€Area Strain Sensors based upon Grapheneâ€Polymer Composite Coatings Probed by Raman Spectroscopy. Advanced Functional Materials, 2014, 24, 2865-2874.	7.8	122
30	Continuous Electrochemical Exfoliation of Micrometer-Sized Graphene Using Synergistic Ion Intercalations and Organic Solvents. ACS Applied Materials & Interfaces, 2014, 6, 1632-1639.	4.0	122
31	A simple electrochemical route to metallic phase trilayer MoS₂: evaluation as electrocatalysts and supercapacitors. Journal of Materials Chemistry A, 2017, 5, 11316-11330.	5.2	119
32	Alkali Reduction of Graphene Oxide in Molten Halide Salts: Production of Corrugated Graphene Derivatives for High-Performance Supercapacitors. ACS Nano, 2014, 8, 11225-11233.	7.3	115
33	Photoelectrochemistry of Pristine Mono- and Few-Layer MoS₂. Nano Letters, 2016, 16, 2023-2032.	4.5	107
34	Graphene-Enabled Adaptive Infrared Textiles. Nano Letters, 2020, 20, 5346-5352.	4.5	98
35	Coefficient of thermal expansion of carbon nanotubes measured by Raman spectroscopy. Applied Physics Letters, 2014, 104, .	1.5	97
36	Hybrid multifunctional graphene/glass-fibre polypropylene composites. Composites Science and Technology, 2016, 137, 44-51.	3.8	93

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37	The rheological behaviour of concentrated dispersions of graphene oxide. Journal of Materials Science, 2014, 49, 6311-6320.	1.7	91
38	Strain-induced phonon shifts in tungsten disulfide nanoplatelets and nanotubes. 2D Materials, 2017, 4, 015007.	2.0	85
39	Mesoporous Vertical Co₃O₄ Nanosheet Arrays on Nitrogen-Doped Graphene Foam with Enhanced Charge-Storage Performance. ACS Applied Materials & Interfaces, 2015, 7, 22831-22838.	4.0	82
40	Quantitative determination of the spatial orientation of graphene by polarized Raman spectroscopy. Carbon, 2015, 88, 215-224.	5.4	80
41	Unravelling the Mechanism of Rechargeable Aqueous Znâ€“MnO₂ Batteries: Implementation of Charging Process by Electrodeposition of MnO₂. ChemSusChem, 2020, 13, 4103-4110.	3.6	74
42	Production of aligned carbon nanotubes by the CVD injection method. Physica B: Condensed Matter, 2002, 323, 339-340.	1.3	73
43	The Effect of Stress Transfer Within Doubleâ€Walled Carbon Nanotubes Upon Their Ability to Reinforce Composites. Advanced Materials, 2009, 21, 3591-3595.	11.1	71
44	Graphene oxide and base-washed graphene oxide as reinforcements in PMMA nanocomposites. Composites Science and Technology, 2013, 88, 158-164.	3.8	71
45	High-yield electro-oxidative preparation of graphene oxide. Chemical Communications, 2014, 50, 8402-8404.	2.2	69
46	Benchmarking of graphene-based materials: real commercial products versus ideal graphene. 2D Materials, 2019, 6, 025006.	2.0	68
47	Nitrogen-doped and crumpled graphene sheets with improved supercapacitance. Journal of Materials Chemistry A, 2014, 2, 19495-19499.	5.2	63
48	Enzymeâ€Activated Surfactants for Dispersion of Carbon Nanotubes. Small, 2009, 5, 587-590.	5.2	62
49	Production of carbon fibres from a pyrolysed and graphitised liquid crystalline cellulose fibre precursor. Journal of Materials Science, 2012, 47, 5402-5410.	1.7	62
50	Single Stage Simultaneous Electrochemical Exfoliation and Functionalization of Graphene. ACS Applied Materials & Interfaces, 2017, 9, 710-721.	4.0	62
51	Influence of Gas Phase Equilibria on the Chemical Vapor Deposition of Graphene. ACS Nano, 2013, 7, 3104-3117.	7.3	59
52	Enhanced thermal and fire retardancy properties of polypropylene reinforced with a hybrid graphene/glass-fibre filler. Composites Science and Technology, 2018, 156, 95-102.	3.8	59
53	The effect of flake diameter on the reinforcement of few-layer grapheneâ€“PMMA composites. Composites Science and Technology, 2015, 111, 17-22.	3.8	58
54	Electron transfer kinetics on natural crystals of MoS₂ and graphite. Physical Chemistry Chemical Physics, 2015, 17, 17844-17853.	1.3	57

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55	Mechanical Stability of Flexible Graphene-Based Displays. ACS Applied Materials & Interfaces, 2016, 8, 22605-22614.	4.0	56
56	PMMA-grafted graphene nanoplatelets to reinforce the mechanical and thermal properties of PMMA composites. Carbon, 2020, 157, 750-760.	5.4	56
57	Micromechanics of reinforcement of a graphene-based thermoplastic elastomer nanocomposite. Composites Part A: Applied Science and Manufacturing, 2018, 110, 84-92.	3.8	53
58	Electrochemical exfoliation of graphite in quaternary ammonium-based deep eutectic solvents: a route for the mass production of graphane. Nanoscale, 2015, 7, 11386-11392.	2.8	52
59	Mechanochemical Exfoliation of 2D Crystals in Deep Eutectic Solvents. ACS Sustainable Chemistry and Engineering, 2016, 4, 4465-4472.	3.2	52
60	Electrically conductive GNP/epoxy composites for out-of-autoclave thermoset curing through Joule heating. Composites Science and Technology, 2018, 164, 304-312.	3.8	52
61	Hybrid poly(ether ether ketone) composites reinforced with a combination of carbon fibres and graphene nanoplatelets. Composites Science and Technology, 2019, 175, 60-68.	3.8	52
62	Electrically Conductive 2D Material Coatings for Flexible and Stretchable Electronics: A Comparative Review of Graphenes and MXenes. Advanced Functional Materials, 2022, 32, .	7.8	52
63	Effect of functional groups on the agglomeration of graphene in nanocomposites. Composites Science and Technology, 2018, 163, 116-122.	3.8	51
64	Electrochemistry in a drop: a study of the electrochemical behaviour of mechanically exfoliated graphene on photoresist coated silicon substrate. Chemical Science, 2014, 5, 582-589.	3.7	48
65	Effect of the <scp>C/O</scp> ratio in graphene oxide materials on the reinforcement of epoxyâ€based nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 281-291.	2.4	47
66	MXene Tunable Lamellae Architectures for Supercapacitor Electrodes. ACS Applied Energy Materials, 2020, 3, 411-422.	2.5	46
67	Supercapacitor Electrodes from the in Situ Reaction between Two-Dimensional Sheets of Black Phosphorus and Graphene Oxide. ACS Applied Materials & Interfaces, 2018, 10, 10330-10338.	4.0	44
68	Multifunctional Biocomposites Based on Polyhydroxyalkanoate and Graphene/Carbon Nanofiber Hybrids for Electrical and Thermal Applications. ACS Applied Polymer Materials, 2020, 2, 3525-3534.	2.0	44
69	Investigation of the Differential Capacitance of Highly Ordered Pyrolytic Graphite as a Model Material of Graphene. Langmuir, 2016, 32, 11448-11455.	1.6	43
70	Graphene/Polyelectrolyte Layer-by-Layer Coatings for Electromagnetic Interference Shielding. ACS Applied Nano Materials, 2019, 2, 5272-5281.	2.4	40
71	Strain engineering in monolayer WS₂ and WS₂ nanocomposites. 2D Materials, 2020, 7, 045022.	2.0	40
72	Few layer grapheneâ€“polypropylene nanocomposites: the role of flake diameter. Faraday Discussions, 2014, 173, 379-390.	1.6	39

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73	Systematic Comparison of Graphene Materials for Supercapacitor Electrodes. ChemistryOpen, 2019, 8, 418-428.	0.9	36
74	Graphene and related materials in hierarchical fiber composites: Production techniques and key industrial benefits. Composites Science and Technology, 2020, 185, 107848.	3.8	36
75	Modulation of Charge Transport at Grain Boundaries in SrTiO₃: Toward a High Thermoelectric Power Factor at Room Temperature. ACS Applied Materials & Interfaces, 2021, 13, 11879-11890.	4.0	36
76	Unlocking the energy storage potential of polypyrrole via electrochemical graphene oxide for high performance zinc-ion hybrid supercapacitors. Journal of Power Sources, 2021, 516, 230663.	4.0	36
77	A Universal Electrolyte Formulation for the Electrodeposition of Pristine Carbon and Polypyrrole Composites for Supercapacitors. ACS Applied Materials & Interfaces, 2020, 12, 13386-13399.	4.0	35
78	Interfacial stress transfer in strain engineered wrinkled and folded graphene. 2D Materials, 2019, 6, 045026.	2.0	32
79	Self-Assembled 1T-MoS₂/Functionalized Graphene Composite Electrodes for Supercapacitor Devices. ACS Applied Energy Materials, 2022, 5, 61-70.	2.5	31
80	Optimisation of electrolytic solvents for simultaneous electrochemical exfoliation and functionalisation of graphene with metal nanostructures. Carbon, 2018, 128, 257-266.	5.4	30
81	Surface functionality analysis by Boehm titration of graphene nanoplatelets functionalizedviaa solvent-free cycloaddition reaction. Nanoscale Advances, 2019, 1, 1432-1441.	2.2	30
82	Formation mechanism of peapod-derived double-walled carbon nanotubes. Physical Review B, 2010, 82, .	1.1	29
83	A Study of the Dynamic Interaction of Surfactants with Graphite and Carbon Nanotubes using Fmocâ"Amino Acids as a Model System. Langmuir, 2009, 25, 11760-11767.	1.6	28
84	Interfacial and internal stress transfer in carbon nanotube based nanocomposites. Journal of Materials Science, 2016, 51, 344-352.	1.7	28
85	Graphene-based nanocomposites for structural and functional applications: using 2-dimensional materials in a 3-dimensional world. 2D Materials, 2015, 2, 030205.	2.0	27
86	A study of conductive hydrogel composites of pH-responsive microgels and carbon nanotubes. Soft Matter, 2016, 12, 4142-4153.	1.2	27
87	Modelling mechanical percolation in graphene-reinforced elastomer nanocomposites. Composites Part B: Engineering, 2019, 178, 107506.	5.9	27
88	On the controlled electrochemical preparation of R4N+ graphite intercalation compounds and their host structural deformation effects. Journal of Electroanalytical Chemistry, 2014, 730, 34-40.	1.9	25
89	Grapheneâ€"Polyurethane Coatings for Deformable Conductors and Electromagnetic Interference Shielding. Advanced Electronic Materials, 2020, 6, 2000429.	2.6	25
90	The role of interlayer adhesion in graphene oxide upon its reinforcement of nanocomposites. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150283.	1.6	23

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91	Laser Assisted Solution Synthesis of High Performance Graphene Supported Electrocatalysts. Advanced Functional Materials, 2020, 30, 2001756.	7.8	23
92	Joule Heating and mechanical properties of epoxy/graphene based aerogel composite. Composites Science and Technology, 2022, 218, 109199.	3.8	23
93	Using intra-microgel crosslinking to control the mechanical properties of doubly crosslinked microgels. Soft Matter, 2016, 12, 6985-6994.	1.2	19
94	Influence of surfactants of different nature and chain length on the morphology, thermal stability and sheet resistance of graphene. Soft Matter, 2018, 14, 6013-6023.	1.2	19
95	Deformation of and Interfacial Stress Transfer in Ti₃C₂ MXeneâ€“Polymer Composites. ACS Applied Materials & Interfaces, 2022, 14, 10681-10690.	4.0	19
96	High-performance fluoroelastomer-graphene nanocomposites for advanced sealing applications. Composites Science and Technology, 2021, 202, 108592.	3.8	18
97	Realization of 3D epoxy resin/Ti₃C₂T _x MXene aerogel composites for low-voltage electrothermal heating. 2D Materials, 2021, 8, 025022.	2.0	17
98	Effect of graphene nanoplatelets on the mechanical and gas barrier properties of woven carbon fibre/epoxy composites. Journal of Materials Science, 2021, 56, 19538-19551.	1.7	17
99	The chemical functionalization of graphene nanoplatelets through solvent-free reaction. RSC Advances, 2018, 8, 33564-33573.	1.7	15
100	A Study of Physical and Covalent Hydrogels Containing pH-Responsive Microgel Particles and Graphene Oxide. Langmuir, 2014, 30, 13384-13393.	1.6	14
101	Enhanced Photoluminescence of Solution-Exfoliated Transition Metal Dichalcogenides by Laser Etching. ACS Omega, 2017, 2, 738-745.	1.6	13
102	NMR detects molecular interactions of graphene with aromatic and aliphatic hydrocarbons in water. 2D Materials, 2018, 5, 015003.	2.0	13
103	The formation mechanism of hexagonal Mo₂C defects in CVD graphene grown on liquid copper. Physical Chemistry Chemical Physics, 2020, 22, 2176-2180.	1.3	13
104	Fundamental Insights into Graphene Strain Sensing. Nano Letters, 2021, 21, 833-839.	4.5	13
105	Simultaneous Electrochemical Exfoliation and Chemical Functionalization of Graphene for Supercapacitor Electrodes. Journal of the Electrochemical Society, 2020, 167, 110531.	1.3	11
106	Silane-functionalized graphene nanoplatelets for silicone rubber nanocomposites. Journal of Materials Science, 2022, 57, 2683-2696.	1.7	11
107	A Review on Printing of Responsive Smart and 4D Structures Using 2D Materials. Advanced Materials Technologies, 2022, 7, .	3.0	11
108	Dispersal of pristine graphene for biological studies. RSC Advances, 2016, 6, 69551-69559.	1.7	8

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109	Anisotropic swelling of elastomers filled with aligned 2D materials. 2D Materials, 2020, 7, 025031.	2.0	8
110	Realising biaxial reinforcement via orientation-induced anisotropic swelling in graphene-based elastomers. Nanoscale, 2020, 12, 3377-3386.	2.8	7
111	Ice-templated hybrid graphene oxideâ€"graphene nanoplatelet lamellar architectures: tuning mechanical and electrical properties. Nanotechnology, 2021, 32, 205601.	1.3	6
112	Deformation and tearing of graphene-reinforced elastomer nanocomposites. Composites Communications, 2021, 25, 100764.	3.3	5
113	Response to â€œComment on the Effect of Stress Transfer Within Doubleâ€Walled Carbon Nanotubes upon Their Ability to Reinforce Compositesâ€• Advanced Materials, 2010, 22, 1180-1181.	11.1	3
114	Patterned, morphing composites via maskless photo-click lithography. Soft Matter, 2020, 16, 1270-1278.	1.2	3
115	High-Power Energy Storage from Carbon Electrodes Using Highly Acidic Electrolytes. Journal of Physical Chemistry C, 2020, 124, 20701-20711.	1.5	3
116	Atmospheric Pressure Catalytic Vapor Deposition of Graphene on Liquid Sn and Cuâ€"Sn Alloy Substrates. Nanomaterials, 2020, 10, 2150.	1.9	3
117	Au electrodeposition on carbon materials. , 2012, , .		1
118	Carbon in Polymer. , 2013, , 695-728.		1
119	Atmospheric Pressure Catalytic Vapor Deposition of Graphene on Liquid In and Cu-In Alloy Substrates. Catalysts, 2021, 11, 1318.	1.6	1
120	Switchable surfactants: Small 5/2009. Small, 2009, 5, NA-NA.	5.2	0