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List of Publications by Year
in descending order

72	2,717	186265 28	189892 50
papers	citations	h-index	g-index

73	73	73	3952
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	X-ray photoelectron spectroscopy of graphitic carbon nanomaterials doped with heteroatoms. Beilstein Journal of Nanotechnology, 2015, 6, 177-192.	2.8	319
2	Manipulating low-dimensional materials down to the level of single atoms with electron irradiation. Ultramicroscopy, 2017, 180, 163-172.	1.9	135
3	Siliconâ€“Carbon Bond Inversions Driven by 60-keV Electrons in Graphene. Physical Review Letters, 2014, 113, 115501.	7.8	123
4	Atomistic Description of Electron Beam Damage in Nitrogen-Doped Graphene and Single-Walled Carbon Nanotubes. ACS Nano, 2012, 6, 8837-8846.	14.6	119
5	Electron-Beam Manipulation of Silicon Dopants in Graphene. Nano Letters, 2018, 18, 5319-5323.	9.1	98
6	Implanting Germanium into Graphene. ACS Nano, 2018, 12, 4641-4647.	14.6	86
7	The Use of NH₃ to Promote the Production of Large-Diameter Single-Walled Carbon Nanotubes with a Narrow (n,m) Distribution. Journal of the American Chemical Society, 2011, 133, 1224-1227.	13.7	81
8	Quantifying transmission electron microscopy irradiation effects using two-dimensional materials. Nature Reviews Physics, 2019, 1, 397-405.	26.6	79
9	Single-atom spectroscopy of phosphorus dopants implanted into graphene. 2D Materials, 2017, 4, 021013.	4.4	77
10	Towards atomically precise manipulation of 2D nanostructures in the electron microscope. 2D Materials, 2017, 4, 042004.	4.4	73
11	Computational insights and the observation of SiC nanograin assembly: towards 2D silicon carbide. Scientific Reports, 2017, 7, 4399.	3.3	73
12	Core level binding energies of functionalized and defective graphene. Beilstein Journal of Nanotechnology, 2014, 5, 121-132.	2.8	70
13	Isotope analysis in the transmission electron microscope. Nature Communications, 2016, 7, 13040.	12.8	64
14	Highly individual SWCNTs for high performance thin film electronics. Carbon, 2016, 103, 228-234.	10.3	63
15	High oxygen reduction activity of few-walled carbon nanotubes with low nitrogen content. Applied Catalysis B: Environmental, 2014, 158-159, 233-241.	20.2	62
16	Engineering single-atom dynamics with electron irradiation. Science Advances, 2019, 5, eaav2252.	10.3	61
17	Uncovering the ultimate performance of single-walled carbon nanotube films as transparent conductors. Applied Physics Letters, 2015, 107, .	3.3	57
18	Atomic Structure of Intrinsic and Electron-Irradiation-Induced Defects in MoTe₂. Chemistry of Materials, 2018, 30, 1230-1238.	6.7	56

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19	Gas phase synthesis of non-bundled, small diameter single-walled carbon nanotubes with near-armchair chiralities. Applied Physics Letters, 2015, 107, .	3.3	54
20	Atomic-Scale in Situ Observations of Crystallization and Restructuring Processes in Two-Dimensional MoS₂ Films. ACS Nano, 2018, 12, 8758-8769.	14.6	51
21	Buckyball sandwiches. Science Advances, 2017, 3, e1700176.	10.3	50
22	Nitrogen-Doped Single-Walled Carbon Nanotube Thin Films Exhibiting Anomalous Sheet Resistances. Chemistry of Materials, 2011, 23, 2201-2208.	6.7	43
23	Perforating Freestanding Molybdenum Disulfide Monolayers with Highly Charged Ions. Journal of Physical Chemistry Letters, 2019, 10, 904-910.	4.6	42
24	Direct imaging of light-element impurities in graphene reveals triple-coordinated oxygen. Nature Communications, 2019, 10, 4570.	12.8	39
25	Chemical Oxidation of Graphite: Evolution of the Structure and Properties. Journal of Physical Chemistry C, 2018, 122, 929-935.	3.1	38
26	Dissociation of oxygen on pristine and nitrogen-doped carbon nanotubes: a spin-polarized density functional study. RSC Advances, 2014, 4, 15225-15235.	3.6	36
27	Calculation of the graphene C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>s</mml:mi></mml:mrow></mml:m level binding energy. Physical Review B, 2015, 91, .	3.2	36
28	Grain boundary-mediated nanopores in molybdenum disulfide grown by chemical vapor deposition. Nanoscale, 2017, 9, 1591-1598.	5.6	31
29	Efficient first principles simulation of electron scattering factors for transmission electron microscopy. Ultramicroscopy, 2019, 197, 16-22.	1.9	29
30	Ab initiodensity functional theory study on the atomic and electronic structure of GaP/Si(001) heterointerfaces. Physical Review B, 2016, 94, .	3.2	28
31	Toward Exotic Layered Materials: 2D Cuprous Iodide. Advanced Materials, 2022, 34, e2106922.	21.0	28
32	Silicon Substitution in Nanotubes and Graphene via Intermittent Vacancies. Journal of Physical Chemistry C, 2019, 123, 13136-13140.	3.1	27
33	Scanning transmission electron microscopy under controlled low-pressure atmospheres. Ultramicroscopy, 2019, 203, 76-81.	1.9	24
34	Atomic-Level Structural Engineering of Graphene on a Mesoscopic Scale. Nano Letters, 2021, 21, 5179-5185.	9.1	24
35	Incremental Variation in the Number of Carbon Nanotube Walls with Growth Temperature. Journal of Physical Chemistry C, 2009, 113, 2212-2218.	3.1	22
36	Selective differential ammonia gas sensor based on Nâ€doped SWCNT films. Physica Status Solidi (B): Basic Research, 2011, 248, 2462-2466.	1.5	21

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37	Tailoring Electronic and Magnetic Properties of Graphene by Phosphorus Doping. ACS Applied Materials & Interfaces, 2020, 12, 34074-34085.	8.0	20
38	Nitrogenâ€doped SWCNT synthesis using ammonia and carbon monoxide. Physica Status Solidi (B): Basic Research, 2010, 247, 2726-2729.	1.5	19
39	Influence of the diameter of single-walled carbon nanotube bundles on the optoelectronic performance of dry-deposited thin films. Beilstein Journal of Nanotechnology, 2012, 3, 692-702.	2.8	19
40	On the bonding environment of phosphorus in purified doped single-walled carbon nanotubes. Carbon, 2015, 81, 91-95.	10.3	19
41	Spectromicroscopy of C60 and azafullerene C59N: Identifying surface adsorbed water. Scientific Reports, 2016, 6, 35605.	3.3	19
42	Zigzag sp² Carbon Chains Passing through an sp³ Framework: A Driving Force toward Room-Temperature Ferromagnetic Graphene. ACS Nano, 2018, 12, 12847-12859.	14.6	19
43	Atomic-Scale Deformations at the Interface of a Mixed-Dimensional van der Waals Heterostructure. ACS Nano, 2018, 12, 8512-8519.	14.6	19
44	Single Indium Atoms and Few-Atom Indium Clusters Anchored onto Graphene via Silicon Heteroatoms. ACS Nano, 2021, 15, 14373-14383.	14.6	19
45	A comparative study of field emission from NanoBuds, nanographite and pure or N-doped single-wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2010, 247, 3051-3054.	1.5	15
46	Mechanism of the initial stages of nitrogen-doped single-walled carbon nanotube growth. Physical Chemistry Chemical Physics, 2011, 13, 11303.	2.8	15
47	Coherent diffraction of hydrogen through the 246 pm lattice of graphene. New Journal of Physics, 2019, 21, 033004.	2.9	15
48	Direct visualization of the 3D structure of silicon impurities in graphene. Applied Physics Letters, 2019, 114, .	3.3	15
49	CVD Synthesis of Hierarchical 3D MWCNT/Carbon-Fiber Nanostructures. Journal of Nanomaterials, 2008, 2008, 1-7.	2.7	14
50	High quality SWCNT synthesis in the presence of NH₃ using a vertical flow aerosol reactor. Physica Status Solidi (B): Basic Research, 2009, 246, 2507-2510.	1.5	14
51	Electronâ€Beam Manipulation of Silicon Impurities in Singleâ€Walled Carbon Nanotubes. Advanced Functional Materials, 2019, 29, 1901327.	14.9	14
52	Graphene Lattices with Embedded Transition-Metal Atoms and Tunable Magnetic Anisotropy Energy: Implications for Spintronic Devices. ACS Applied Nano Materials, 2022, 5, 1562-1573.	5.0	13
53	Influence of temperature on the displacement threshold energy in graphene. Scientific Reports, 2019, 9, 12981.	3.3	12
54	ab initio description of bonding for transmission electron microscopy. Ultramicroscopy, 2021, 231, 113253.	1.9	12

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55	Improvement of the mechanical properties of single-walled carbon nanotube networks by carbon plasma coatings. Carbon, 2013, 53, 50-61.	10.3	10
56	Identification of Nitrogen Dopants in Single-Walled Carbon Nanotubes by Scanning Tunneling Microscopy. ACS Nano, 2013, 7, 7219-7226.	14.6	10
57	Mechanism of Electron-Beam Manipulation of Single-Dopant Atoms in Silicon. Journal of Physical Chemistry C, 2021, 125, 16041-16048.	3.1	10
58	Structure and electronic states of a graphene double vacancy with an embedded Si dopant. Journal of Chemical Physics, 2017, 147, 194702.	3.0	9
59	Stepâ€Byâ€Step Atomic Insights into Structural Reordering from 2D to 3D MoS 2. Advanced Functional Materials, 2021, 31, 2008395.	14.9	9
60	Mechanism study of floating catalyst CVD synthesis of SWCNTs. Physica Status Solidi (B): Basic Research, 2010, 247, 2708-2712.	1.5	8
61	Robust theoretical modelling of core ionisation edges for quantitative electron energy loss spectroscopy of B- and N-doped graphene. Journal of Physics Condensed Matter, 2017, 29, 225303.	1.8	8
62	A new detection scheme for van der Waals heterostructures, imaging individual fullerenes between graphene sheets, and controlling the vacuum in scanning transmission electron microscopy. Microscopy and Microanalysis, 2017, 23, 460-461.	0.4	8
63	Beam-driven dynamics of aluminium dopants in graphene. 2D Materials, 2022, 9, 035009.	4.4	8
64	Growth, dispersion, and electronic devices of nitrogenâ€doped singleâ€wall carbon nanotubes. Physica Status Solidi (B): Basic Research, 2012, 249, 2416-2419.	1.5	6
65	Direct synthesis of high-quality single-walled carbon nanotubes by the physical nucleation of iron nanoparticles in an atmospheric pressure carbon monoxide flow. Carbon, 2012, 50, 5343-5345.	10.3	6
66	Structure and Energetics of Embedded Si Patterns in Graphene. Physica Status Solidi (B): Basic Research, 2017, 254, 1700188.	1.5	5
67	Atom-by-Atom STEM Investigation of Defect Engineering in Graphene. Microscopy and Microanalysis, 2014, 20, 1736-1737.	0.4	2
68	Comment on â€œTemperature dependence of atomic vibrations in mono-layer grapheneâ€•[J. Appl. Phys. 118, 074302 (2015)]. Journal of Applied Physics, 2016, 119, 066101.	2.5	2
69	Optoelectronic Performance of Nitrogen-Doped Single-Walled Carbon Nanotube Films. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 68-72.	0.5	2
70	Understanding and Exploiting the Interaction of Electron Beams With Low-dimensional Materials - From Controlled Atomic-level Manipulation to Circumventing Radiation Damage. Microscopy and Microanalysis, 2017, 23, 196-197.	0.4	1
71	Graphene hybrids and extended defects: Revealing 3D structures and new insights to radiation damage. Microscopy and Microanalysis, 2018, 24, 1582-1583.	0.4	0
72	TEM Verification of Optical Diameter Distribution Analysis for Nitrogen-Doped SWCNT Films. Journal of Nanoelectronics and Optoelectronics, 2012, 7, 17-21.	0.5	0