

Bing Deng

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

44
papers

2,155
citations

23
h-index

45
g-index

45
ext. papers

2,669
ext. citations

16.6
avg. IF

4.91
L-index

#	Paper	IF	Citations
44	Phase controlled synthesis of transition metal carbide nanocrystals by ultrafast flash Joule heating.. <i>Nature Communications</i> , 2022 , 13, 262	17.4	2
43	Rare earth elements from waste.. <i>Science Advances</i> , 2022 , 8, eabm3132	14.3	7
42	Urban mining by flash Joule heating. <i>Nature Communications</i> , 2021 , 12, 5794	17.4	1
41	Tunable Pore Size from Sub-Nanometer to a Few Nanometers in Large-Area Graphene Nanoporous Atomically Thin Membranes. <i>ACS Applied Materials & Interfaces</i> , 2021 ,	9.5	2
40	Millisecond Conversion of Metastable 2D Materials by Flash Joule Heating. <i>ACS Nano</i> , 2021 , 15, 1282-1296.	16.7	20
39	n-Type Dirac-Source Field-Effect Transistors Based on a Graphene/Carbon Nanotube Heterojunction. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000258	6.4	6
38	Interlayer Decoupling in 30° Twisted Bilayer Graphene Quasicrystal. <i>ACS Nano</i> , 2020 , 14, 1656-1664	16.7	31
37	Robust ultraclean atomically thin membranes for atomic-resolution electron microscopy. <i>Nature Communications</i> , 2020 , 11, 541	17.4	21
36	Growth of Ultraflat Graphene with Greatly Enhanced Mechanical Properties. <i>Nano Letters</i> , 2020 , 20, 6798-6805	16.9	16
35	A Force-Engineered Lint Roller for Superclean Graphene. <i>Advanced Materials</i> , 2019 , 31, e1902978	24	31
34	Dirac-cone induced gating enhancement in single-molecule field-effect transistors. <i>Nanoscale</i> , 2019 , 11, 13117-13125	7.7	8
33	Scalable and ultrafast epitaxial growth of single-crystal graphene wafers for electrically tunable liquid-crystal microlens arrays. <i>Science Bulletin</i> , 2019 , 64, 659-668	10.6	50
32	Wafer-Scale Growth of Single-Crystal 2D Semiconductor on Perovskite Oxides for High-Performance Transistors. <i>Nano Letters</i> , 2019 , 19, 2148-2153	11.5	52
31	Heterogeneous nucleation and growth of electrodeposited lithium metal on the basal plane of single-layer graphene. <i>Energy Storage Materials</i> , 2019 , 16, 419-425	19.4	52
30	Macroscale single crystal graphene templated directional alignment of liquid-crystal microlens array for light field imaging. <i>Applied Physics Letters</i> , 2019 , 115, 071903	3.4	3
29	Toward Mass Production of CVD Graphene Films. <i>Advanced Materials</i> , 2019 , 31, e1800996	24	123
28	Defects guided wrinkling in graphene on copper substrate. <i>Carbon</i> , 2019 , 143, 736-742	10.4	23

27	Local electrochemical reactivity of single layer graphene deposited on flexible and transparent plastic film using scanning electrochemical microscopy. <i>Carbon</i> , 2018 , 130, 566-573	10.4	3
26	Switching Vertical to Horizontal Graphene Growth Using Faraday Cage-Assisted PECVD Approach for High-Performance Transparent Heating Device. <i>Advanced Materials</i> , 2018 , 30, 1704839	24	53
25	Anisotropic Strain Relaxation of Graphene by Corrugation on Copper Crystal Surfaces. <i>Small</i> , 2018 , 14, e1800725	11	25
24	Low-Temperature Heteroepitaxy of 2D Pbl /Graphene for Large-Area Flexible Photodetectors. <i>Advanced Materials</i> , 2018 , 30, e1803194	24	61
23	Dirac-source field-effect transistors as energy-efficient, high-performance electronic switches. <i>Science</i> , 2018 , 361, 387-392	33.3	146
22	Soft transparent graphene contact lens electrodes for conformal full-cornea recording of electroretinogram. <i>Nature Communications</i> , 2018 , 9, 2334	17.4	65
21	Bridging the Gap between Reality and Ideal in Chemical Vapor Deposition Growth of Graphene. <i>Chemical Reviews</i> , 2018 , 118, 9281-9343	68.1	160
20	Flexible Photodetectors: Low-Temperature Heteroepitaxy of 2D Pbl ₂ /Graphene for Large-Area Flexible Photodetectors (Adv. Mater. 36/2018). <i>Advanced Materials</i> , 2018 , 30, 1870271	24	2
19	Fast Growth of Strain-Free AlN on Graphene-Buffered Sapphire. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11935-11941	16.4	54
18	Strong Adlayer-Substrate Interactions "Break" the Patching Growth of h-BN onto Graphene on Re(0001). <i>ACS Nano</i> , 2017 , 11, 1807-1815	16.7	22
17	Irreparable Defects Produced by the Patching of h-BN Frontiers on Strongly Interacting Re(0001) and Their Electronic Properties. <i>Journal of the American Chemical Society</i> , 2017 , 139, 5849-5856	16.4	10
16	Rapid growth of angle-confined large-domain graphene bicrystals. <i>Nano Research</i> , 2017 , 10, 1189-1199	10	7
15	Wrinkle-Free Single-Crystal Graphene Wafer Grown on Strain-Engineered Substrates. <i>ACS Nano</i> , 2017 , 11, 12337-12345	16.7	112
14	Unique Transformation from Graphene to Carbide on Re(0001) Induced by Strong Carbon-Metal Interaction. <i>Journal of the American Chemical Society</i> , 2017 , 139, 17574-17581	16.4	29
13	Surface Monocrystallization of Copper Foil for Fast Growth of Large Single-Crystal Graphene under Free Molecular Flow. <i>Advanced Materials</i> , 2016 , 28, 8968-8974	24	110
12	Graphene Encapsulated Copper Microwires as Highly MRI Compatible Neural Electrodes. <i>Nano Letters</i> , 2016 , 16, 7731-7738	11.5	57
11	Growing three-dimensional biomorphic graphene powders using naturally abundant diatomite templates towards high solution processability. <i>Nature Communications</i> , 2016 , 7, 13440	17.4	71
10	Chemically Engineered Substrates for Patternable Growth of Two-Dimensional Chalcogenide Crystals. <i>ACS Nano</i> , 2016 , 10, 10317-10323	16.7	14

9	Low-Temperature Growth of Two-Dimensional Layered Chalcogenide Crystals on Liquid. <i>Nano Letters</i> , 2016 , 16, 2103-7	11.5	39
8	Large-area chemical vapor deposition-grown monolayer graphene-wrapped silver nanowires for broad-spectrum and robust antimicrobial coating. <i>Nano Research</i> , 2016 , 9, 963-973	10	44
7	Comparison of Nanocarbon-Silicon Solar Cells with Nanotube-Si or Graphene-Si Contact. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 17088-94	9.5	16
6	2D Hybrid Nanostructured Dirac Materials for Broadband Transparent Electrodes. <i>Advanced Materials</i> , 2015 , 27, 4315-21	24	8
5	Roll-to-Roll Green Transfer of CVD Graphene onto Plastic for a Transparent and Flexible Triboelectric Nanogenerator. <i>Advanced Materials</i> , 2015 , 27, 5210-6	24	215
4	Roll-to-Roll Encapsulation of Metal Nanowires between Graphene and Plastic Substrate for High-Performance Flexible Transparent Electrodes. <i>Nano Letters</i> , 2015 , 15, 4206-13	11.5	357
3	Facial synthesis of SnO ₂ nanoparticle film for efficient fiber-shaped dye-sensitized solar cells. <i>Journal of Power Sources</i> , 2014 , 247, 249-255	8.9	36
2	Relationship between the helical structure and optical activity of some chiral cyclic esters. <i>Science in China Series B: Chemistry</i> , 1998 , 41, 225-238		1
1	Sounds of Synthesis: Acoustic Real-Time Analysis of Laser-Induced Graphene. <i>Advanced Functional Materials</i> , 2110198	15.6	0