Dechao Geng

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/253350/publications.pdf

Version: 2024-02-01

77 papers	4,642 citations	136950 32 h-index	98798 67 g-index
79 all docs	79 docs citations	79 times ranked	6510 citing authors

#	Article	IF	Citations
1	The way towards for ultraflat and superclean graphene. Nano Select, 2022, 3, 485-504.	3.7	2
2	Controllable growth of centimeter-scale 2D crystalline conjugated polymers for photonic synaptic transistors. Journal of Materials Chemistry C, 2022, 10, 2681-2689.	5.5	11
3	Growth and Etching of Centimeter-Scale Self-Assembly Grapheneâ€“h-BN Super-Ordered Arrays: Implications for Integrated Electronic Devices. ACS Applied Nano Materials, 2022, 5, 774-781.	5.0	5
4	Additiveâ€Assisted Growth of Scaled and Quality 2D Materials. Small, 2022, 18, e2107241.	10.0	11
5	Recent Advances in Growth of Transition Metal Carbides and Nitrides (MXenes) Crystals. Advanced Functional Materials, 2022, 32, .	14.9	43
6	Multi-stage anisotropic etching of two-dimensional heterostructures. Nano Research, 2022, 15, 4909-4915.	10.4	6
7	Recent advances in the controlled chemical vapor deposition growth of bilayer 2D single crystals. Journal of Materials Chemistry C, 2022, 10, 13324-13350.	5.5	10
8	Oxygen-Assisted Anisotropic Chemical Etching of MoSe₂ for Enhanced Phototransistors. Chemistry of Materials, 2022, 34, 4212-4223.	6.7	10
9	Recent Advances in Growth of Largeâ€Sized 2D Single Crystals on Cu Substrates. Advanced Materials, 2021, 33, e2003956.	21.0	26
10	Controlled growth of 2D ultrathin Ga₂O₃crystals on liquid metal. Nanoscale Advances, 2021, 3, 4411-4415.	4.6	5
11	One-Pot Confined Epitaxial Growth of 2D Heterostructure Arrays. , 2021, 3, 217-223.		8
12	A minireview on chemical vapor deposition growth of wafer-scale monolayerh-BN single crystals. Nanoscale, 2021, 13, 17310-17317.	5.6	14
13	The More, the Betterâ€“Recent Advances in Construction of 2D Multiâ€Heterostructures. Advanced Functional Materials, 2021, 31, 2102049.	14.9	27
14	Organic Field Effect Transistorâ€Based Photonic Synapses: Materials, Devices, and Applications. Advanced Functional Materials, 2021, 31, 2106151.	14.9	67
15	When graphene meets white graphene â€“ recent advances in the construction of graphene and h-BN heterostructures. Nanoscale, 2021, 13, 13174-13194.	5.6	9
16	Self-Assembly Graphene Arrays on a Liquid Cuâ€“Ag Alloy. Chemistry of Materials, 2021, 33, 8649-8655.	6.7	6
17	Continuous orientated growth of scaled single-crystal 2D monolayer films. Nanoscale Advances, 2021, 3, 6545-6567.	4.6	3
18	Controlled growth of Mo₂C pyramids on liquid Cu surface. Journal of Semiconductors, 2020, 41, 082001.	3.7	7

#	Article	IF	Citations
19	Primary Nucleation-Dominated Chemical Vapor Deposition Growth for Uniform Graphene Monolayers on Dielectric Substrate. Journal of the American Chemical Society, 2019, 141, 11004-11008.	13.7	52
20	Graphene-Induced in Situ Growth of Monolayer and Bilayer 2D SiC Crystals Toward High-Temperature Electronics. ACS Applied Materials & Interfaces, 2019, 11, 39109-39115.	8.0	10
21	In situ epitaxial engineering of graphene and h-BN lateral heterostructure with a tunable morphology comprising h-BN domains. NPG Asia Materials, 2019, 11, .	7.9	26
22	High-Concentration Niobium-Substituted WS2 Basal Domains with Reconfigured Electronic Band Structure for Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2019, 11, 34862-34868.	8.0	21
23	Effects of precursor pre-treatment on the vapor deposition of WS₂ monolayers. Nanoscale Advances, 2019, 1, 953-960.	4.6	17
24	Location-selective growth of two-dimensional metallic/semiconducting transition metal dichalcogenide heterostructures. Nanoscale, 2019, 11, 4183-4189.	5.6	16
25	Formation of Twinned Graphene Polycrystals. Angewandte Chemie, 2019, 131, 7805-7809.	2.0	6
26	Formation of Twinned Graphene Polycrystals. Angewandte Chemie - International Edition, 2019, 58, 7723-7727.	13.8	25
27	Thermal-Assisted Vertical Electron Injections in Few-Layer Pyramidal-Structured MoS₂ Crystals. Journal of Physical Chemistry Letters, 2019, 10, 1292-1299.	4.6	5
28	Edge Segregated Polymorphism in 2D Molybdenum Carbide. Advanced Materials, 2019, 31, e1808343.	21.0	56
29	Pattern evolution characterizes the mechanism and efficiency of CVD graphene growth. Carbon, 2019, 141, 316-322.	10.3	21
30	From Selfâ€Assembly Hierarchical hâ€BN Patterns to Centimeterâ€Scale Uniform Monolayer hâ€BN Film. Advanced Materials Interfaces, 2019, 6, 1801493.	3.7	23
31	Mo-Terminated Edge Reconstructions in Nanoporous Molybdenum Disulfide Film. Nano Letters, 2018, 18, 482-490.	9.1	105
32	Two-Dimensional Polymer Synthesized via Solid-State Polymerization for High-Performance Supercapacitors. ACS Nano, 2018, 12, 852-860.	14.6	91
33	Homoepitaxial Growth of Largeâ€Scale Highly Organized Transition Metal Dichalcogenide Patterns. Advanced Materials, 2018, 30, 1704674.	21.0	63
34	Liquid catalysts: an innovative solution to 2D materials in CVD processes. Materials Horizons, 2018, 5, 1021-1034.	12.2	19
35	Recent Advances in Growth of Novel 2D Materials: Beyond Graphene and Transition Metal Dichalcogenides. Advanced Materials, 2018, 30, e1800865.	21.0	203
36	Etching-Controlled Growth of Graphene by Chemical Vapor Deposition. Chemistry of Materials, 2017, 29, 1022-1027.	6.7	49

#	Article	IF	Citations
37	Robust microscale superlubricity under high contact pressure enabled by graphene-coated microsphere. Nature Communications, 2017, 8, 14029.	12.8	235
38	Facile growth of vertically-aligned graphene nanosheets via thermal CVD: The experimental and theoretical investigations. Carbon, 2017, 121, 1-9.	10.3	53
39	Chemical Vapor Deposition of Large-Size Monolayer MoSe₂ Crystals on Molten Glass. Journal of the American Chemical Society, 2017, 139, 1073-1076.	13.7	258
40	Controlled growth of ultrathin Mo ₂ C superconducting crystals on liquid Cu surface. 2D Materials, 2017, 4, 011012.	4.4	112
41	Direct Synthesis of Largeâ€Area 2D Mo₂C on In Situ Grown Graphene. Advanced Materials, 2017, 29, 1700072.	21.0	305
42	Controlled Growth of Graphene Crystals by Chemical Vapor Deposition: From Solid Metals to Liquid Metals. , 2017, , 238-256.		1
43	Controlled assembly of SiO_x nanoparticles in graphene. Materials Horizons, 2016, 3, 568-574.	12.2	8
44	Lateral Epitaxy of Atomically Sharp WSe₂/WS₂ Heterojunctions on Silicon Dioxide Substrates. Chemistry of Materials, 2016, 28, 7194-7197.	6.7	59
45	Chemical vapor deposition of bilayer graphene with layer-resolved growth through dynamic pressure control. Journal of Materials Chemistry C, 2016, 4, 7464-7471.	5.5	28
46	Chemical Vapor Deposition of Highâ€Quality Largeâ€Sized MoS₂ Crystals on Silicon Dioxide Substrates. Advanced Science, 2016, 3, 1500033.	11.2	128
47	Largeâ€Area Growth of Fiveâ€Lobed and Triangular Graphene Grains on Textured Cu Substrate. Advanced Materials Interfaces, 2016, 3, 1600347.	3.7	15
48	Graphene Arrays: Direct Top-Down Fabrication of Large-Area Graphene Arrays by an In Situ Etching Method (Adv. Mater. 28/2015). Advanced Materials, 2015, 27, 4194-4194.	21.0	3
49	Direct Topâ€Down Fabrication of Largeâ€Area Graphene Arrays by an In Situ Etching Method. Advanced Materials, 2015, 27, 4195-4199.	21.0	36
50	Magnetic Properties of a Bottomâ€Up Synthesis Analogous Graphene with Nâ€Doped Zigzag Edges. Advanced Electronic Materials, 2015, 1, 1500084.	5.1	6
51	Graphene Single Crystals: Size and Morphology Engineering. Advanced Materials, 2015, 27, 2821-2837.	21.0	99
52	Layerâ€Stacking Growth and Electrical Transport of Hierarchical Graphene Architectures. Advanced Materials, 2014, 26, 3218-3224.	21.0	39
53	Selfâ€Aligned Singleâ€Crystal Graphene Grains. Advanced Functional Materials, 2014, 24, 1664-1670.	14.9	47
54	Controllable fabrication of ultrathin free-standing graphene films. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130017.	3.4	16

#	Article	IF	Citations
55	Nearâ€Equilibrium Chemical Vapor Deposition of Highâ€Quality Singleâ€Crystal Graphene Directly on Various Dielectric Substrates. Advanced Materials, 2014, 26, 1348-1353.	21.0	132
56	Graphene: Near-Equilibrium Chemical Vapor Deposition of High-Quality Single-Crystal Graphene Directly on Various Dielectric Substrates (Adv. Mater. 9/2014). Advanced Materials, 2014, 26, 1471-1471.	21.0	1
57	Graphene: Layerâ€Stacking Growth and Electrical Transport of Hierarchical Graphene Architectures (Adv. Mater. 20/2014). Advanced Materials, 2014, 26, 3355-3355.	21.0	0
58	Graphene: Controlled Growth of Single-Crystal Twelve-Pointed Graphene Grains on a Liquid Cu Surface (Adv. Mater. 37/2014). Advanced Materials, 2014, 26, 6519-6519.	21.0	1
59	Controlled Growth of Singleâ€Crystal Twelveâ€Pointed Graphene Grains on a Liquid Cu Surface. Advanced Materials, 2014, 26, 6423-6429.	21.0	55
60	Hierarchy of graphene wrinkles induced by thermal strain engineering. Applied Physics Letters, 2013, 103, .	3.3	87
61	Twoâ€Stage Metalâ€Catalystâ€Free Growth of Highâ€Quality Polycrystalline Graphene Films on Silicon Nitride Substrates. Advanced Materials, 2013, 25, 992-997.	21.0	112
62	Graphene Sheets: Gramâ€Scale Synthesis of Graphene Sheets by a Catalytic Arcâ€Discharge Method (Small) Tj ETQq0 0 0 rgBT /Overloc	10.0	0
63	Synthesis and morphology transformation of single-crystal graphene domains based on activated carbon dioxide by chemical vapor deposition. Journal of Materials Chemistry C, 2013, 1, 2990.	5.5	30
64	Fractal Etching of Graphene. Journal of the American Chemical Society, 2013, 135, 6431-6434.	13.7	140
65	Gramâ€Scale Synthesis of Graphene Sheets by a Catalytic Arcâ€Discharge Method. Small, 2013, 9, 1330-1335.	10.0	49
66	Self-organized graphene crystal patterns. NPG Asia Materials, 2013, 5, e36-e36.	7.9	153
67	Nanoscale Materials: A General Approach for Fast Detection of Charge Carrier Type and Conductivity Difference in Nanoscale Materials (Adv. Mater. 48/2013). Advanced Materials, 2013, 25, 6916-6916.	21.0	0
68	Graphene: Twoâ€Stage Metalâ€Catalystâ€Free Growth of Highâ€Quality Polycrystalline Graphene Films on Silicon Nitride Substrates (Adv. Mater. 7/2013). Advanced Materials, 2013, 25, 938-938.	21.0	4
69	A General Approach for Fast Detection of Charge Carrier Type and Conductivity Difference in Nanoscale Materials. Advanced Materials, 2013, 25, 7015-7019.	21.0	9
70	Reply to Harutyunyan: Continuous and uniform graphene film grown on liquid Cu surface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2100-E2100.	7.1	0
71	Uniform hexagonal graphene flakes and films grown on liquid copper surface. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7992-7996.	7.1	417
72	Low Temperature Growth of Highly Nitrogen-Doped Single Crystal Graphene Arrays by Chemical Vapor Deposition. Journal of the American Chemical Society, 2012, 134, 11060-11063.	13.7	287

#	Article	IF	Citations
73	Oxygen-Aided Synthesis of Polycrystalline Graphene on Silicon Dioxide Substrates. Journal of the American Chemical Society, 2011, 133, 17548-17551.	13.7	315
74	Evaluation of metallic and semiconducting single-walled carbon nanotube characteristics. Nanoscale, 2011, 3, 2074.	5.6	13
75	Ultrahigh density modulation of aligned single-walled carbon nanotube arrays. Nano Research, 2011, 4, 931-937.	10.4	17
76	Synthesis of large-area, few-layer graphene on iron foil by chemical vapor deposition. Nano Research, 2011, 4, 1208-1214.	10.4	120
77	Equiangular Hexagonâ€Shapeâ€Controlled Synthesis of Graphene on Copper Surface. Advanced Materials, 2011, 23, 3522-3525.	21.0	173