Luzhao Sun

List of Publications by Citations

42 papers	1,277 citations	20 h-index	35 g-index
50 ext. papers	1,698 ext. citations	13.9 avg, IF	4.5 L-index

#	Paper	IF	Citations
42	Two-Dimensional (CHNH)PbBr Perovskite Crystals for High-Performance Photodetector. *Journal of the American Chemical Society*, **2016**, 138, 16612-16615	16.4	273
41	Surface Monocrystallization of Copper Foil for Fast Growth of Large Single-Crystal Graphene under Free Molecular Flow. *Advanced Materials*, **2016**, 28, 8968-8974	24	110
40	Towards super-clean graphene. *Nature Communications*, **2019**, 10, 1912	17.4	89
39	Chemical vapour deposition. *Nature Reviews Methods Primers*, **2021**, 1,		80
38	Low-Temperature Heteroepitaxy of 2D PbI /Graphene for Large-Area Flexible Photodetectors. *Advanced Materials*, **2018**, 30, e1803194	24	61
37	Controlled Growth of Single-Crystal Graphene Films. *Advanced Materials*, **2020**, 32, e1903266	24	58
36	Rapid Growth of Large Single-Crystalline Graphene via Second Passivation and Multistage Carbon Supply. *Advanced Materials*, **2016**, 28, 4671-7	24	52
35	Clean Transfer of Large Graphene Single Crystals for High-Intactness Suspended Membranes and Liquid Cells. *Advanced Materials*, **2017**, 29, 1700639	24	50
34	Scalable and ultrafast epitaxial growth of single-crystal graphene wafers for electrically tunable liquid-crystal microlens arrays. *Science Bulletin*, **2019**, 64, 659-668	10.6	50
33	Large-Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. *Angewandte Chemie - International Edition*, **2019**, 58, 14446-14451	16.4	43
32	Building Large-Domain Twisted Bilayer Graphene with van Hove Singularity. *ACS Nano*, **2016**, 10, 6725-30	16.7	40
31	Nitrogen cluster doping for high-mobility/conductivity graphene films with millimeter-sized domains. *Science Advances*, **2019**, 5, eaaw8337	14.3	39
30	A Force-Engineered Lint Roller for Superclean Graphene. *Advanced Materials*, **2019**, 31, e1902978	24	31
29	Hetero-site nucleation for growing twisted bilayer graphene with a wide range of twist angles. *Nature Communications*, **2021**, 12, 2391	17.4	31
28	Copper-Containing Carbon Feedstock for Growing Superclean Graphene. *Journal of the American Chemical Society*, **2019**, 141, 7670-7674	16.4	30
27	Low-Temperature and Rapid Growth of Large Single-Crystalline Graphene with Ethane. *Small*, **2018**, 14, 1702916	11	30
26	Large Single-Crystal Cu Foils with High-Index Facets by Strain-Engineered Anomalous Grain Growth. *Advanced Materials*, **2020**, 32, e2002034	24	28

25	Exploitation of Bi2O2Se/graphene van der Waals heterojunction for creating efficient photodetectors and short-channel field-effect transistors. *Informa□□Materi□y*, **2019**, 1, 390-395	23.1	24
24	Visualizing fast growth of large single-crystalline graphene by tunable isotopic carbon source. *Nano Research*, **2017**, 10, 355-363	10	24
23	Robust ultraclean atomically thin membranes for atomic-resolution electron microscopy. *Nature Communications*, **2020**, 11, 541	17.4	21
22	New Growth Frontier: Superclean Graphene. *ACS Nano*, **2020**, 14, 10796-10803	16.7	19
21	Superclean Growth of Graphene Using a Cold-Wall Chemical Vapor Deposition Approach. *Angewandte Chemie - International Edition*, **2020**, 59, 17214-17218	16.4	16
20	Understanding Interlayer Contact Conductance in Twisted Bilayer Graphene. *Small*, **2020**, 16, e1902844	11	13
19	Preparation of single-crystal metal substrates for the growth of high-quality two-dimensional materials. *Inorganic Chemistry Frontiers*, **2021**, 8, 182-200	6.8	7
18	Optical detection of the susceptibility tensor in two-dimensional crystals. *Communications Physics*, **2021**, 4,	5.4	7
17	Rational Design of Binary Alloys for Catalytic Growth of Graphene via Chemical Vapor Deposition. *Catalysts*, **2020**, 10, 1305	4	4
16	Decimeter-Scale Atomically Thin Graphene Membranes for Gas-Liquid Separation. *ACS Applied Materials & Interfaces*, **2021**, 13, 10328-10335	9.5	4
15	Toward Epitaxial Growth of Misorientation-Free Graphene on Cu(111) Foils.. *ACS Nano*, **2021**,	16.7	4
14	Realization and transport investigation of a single layer-twisted bilayer graphene junction. *Carbon*, **2020**, 163, 105-112	10.4	2
13	Large-Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. *Angewandte Chemie*, **2019**, 131, 14588-14593	3.6	2
12	Roles of Transition Metal Substrates in Graphene Chemical Vapor Deposition Growth. *Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica*, **2020**, 2012006-0	3.8	2
11	Transfer-Enabled Fabrication of Graphene Wrinkle Arrays for Epitaxial Growth of AlN Films. *Advanced Materials*, **2021**, e2105851	24	2
10	Toward the commercialization of chemical vapor deposition graphene films. *Applied Physics Reviews*, **2021**, 8, 041306	17.3	2
9	Tunable Pore Size from Sub-Nanometer to a Few Nanometers in Large-Area Graphene Nanoporous Atomically Thin Membranes. *ACS Applied Materials & Interfaces*, **2021**,	9.5	2
8	Flexible Photodetectors: Low-Temperature Heteroepitaxy of 2D PbI2/Graphene for Large-Area Flexible Photodetectors (Adv. Mater. 36/2018). *Advanced Materials*, **2018**, 30, 1870271	24	2

7	Superclean Growth of Graphene Using a Cold-Wall Chemical Vapor Deposition Approach. *Angewandte Chemie*, **2020**, 132, 17367-17371	3.6	1
6	Frontispiece: Large-Area Synthesis of Superclean Graphene via Selective Etching of Amorphous Carbon with Carbon Dioxide. *Angewandte Chemie - International Edition*, **2019**, 58,	16.4	1
5	Single Crystals: Clean Transfer of Large Graphene Single Crystals for High-Intactness Suspended Membranes and Liquid Cells (Adv. Mater. 26/2017). *Advanced Materials*, **2017**, 29,	24	1
4	Slip-line-guided Growth of Graphene.. *Advanced Materials*, **2022**, e2201188	24	1
3	The role of Cu crystallographic orientations towards growing superclean graphene on meter-sized scale. *Nano Research*,1	10	0
2	Theoretical calculation boosting the chemical vapor deposition growth of graphene film. *APL Materials*, **2021**, 9, 060906	5.7	0
1	Toward batch synthesis of high-quality graphene by cold-wall chemical vapor deposition approach. *Nano Research*,1	10	0