Tianchao Niu

List of Publications by Year
in descending order

57 papers	1,924 citations	304368 22 h-index	253896 43 g-index
59 all docs	59 docs citations	59 times ranked	3832 citing authors

#	Article	IF	Citations
1	Enhanced Stability and Tunable Photoluminescence in Perovskite CsPbX₃/ZnS Quantum Dot Heterostructure. Small, 2017, 13, 1604085.	5.2	195
2	Growth Intermediates for CVD Graphene on Cu(111): Carbon Clusters and Defective Graphene. Journal of the American Chemical Society, 2013, 135, 8409-8414.	6.6	132
3	Critical Crystal Growth of Graphene on Dielectric Substrates at Low Temperature for Electronic Devices. Angewandte Chemie - International Edition, 2013, 52, 14121-14126.	7.2	125
4	Low Temperature Critical Growth of High Quality Nitrogen Doped Graphene on Dielectrics by Plasma-Enhanced Chemical Vapor Deposition. ACS Nano, 2015, 9, 164-171.	7.3	125
5	From two-dimensional materials to heterostructures. Progress in Surface Science, 2015, 90, 21-45.	3.8	123
6	Facile synthesis of uniform Î±-Fe2O3 crystals and their facet-dependent catalytic performance in the photo-Fenton reaction. Journal of Materials Chemistry A, 2013, 1, 7242.	5.2	92
7	How Graphene Islands Are Unidirectionally Aligned on the Ge(110) Surface. Nano Letters, 2016, 16, 3160-3165.	4.5	92
8	Modulating Epitaxial Atomic Structure of Antimonene through Interface Design. Advanced Materials, 2019, 31, e1902606.	11.1	84
9	Two-dimensional black phosphorus: its fabrication, functionalization and applications. Nanoscale, 2018, 10, 21575-21603.	2.8	73
10	Epitaxial Growth of 6 in. Singleâ€Crystalline Graphene on a Cu/Ni (111) Film at 750 Â°C via Chemical Vapor Deposition. Small, 2019, 15, e1805395.	5.2	71
11	Low-Temperature, Bottom-Up Synthesis of Graphene via a Radical-Coupling Reaction. Journal of the American Chemical Society, 2013, 135, 9050-9054.	6.6	63
12	Largeâ€Scale Synthesis of Strainâ€Tunable Semiconducting Antimonene on Copper Oxide. Advanced Materials, 2020, 32, e1906873.	11.1	46
13	Self-Assembly of Polar Phthalocyanine Molecules on Graphene Grown by Chemical Vapor Deposition. Journal of Physical Chemistry C, 2013, 117, 21849-21855.	1.5	42
14	Copperâ€Vaporâ€Assisted Rapid Synthesis of Large ABâ€Stacked Bilayer Graphene Domains on Cuâ€Ni Alloy. Small, 2016, 12, 2009-2013.	5.2	39
15	Dipole Orientation Dependent Symmetry Reduction of Chloroaluminum Phthalocyanine on Cu(111). Journal of Physical Chemistry C, 2013, 117, 1013-1019.	1.5	38
16	Molecular Ordering and Dipole Alignment of Vanadyl Phthalocyanine Monolayer on Metals: The Effects of Interfacial Interactions. Journal of Physical Chemistry C, 2014, 118, 4151-4159.	1.5	38
17	Epitaxial Growth of Main Group Monoelemental 2D Materials. Advanced Functional Materials, 2021, 31, 2006997.	7.8	37
18	Exploring Single Molecules by Scanning Probe Microscopy: Porphyrin and Phthalocyanine. Journal of Physical Chemistry Letters, 2013, 4, 4095-4102.	2.1	35

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19	Elementary Process for CVD Graphene on Cu(110): Size-selective Carbon Clusters. Scientific Reports, 2014, 4, 4431.	1.6	30
20	Oxygen-Promoted Methane Activation on Copper. Journal of Physical Chemistry B, 2018, 122, 855-863.	1.2	29
21	Epitaxial Growth of Flat, Metallic Monolayer Phosphorene on Metal Oxide. ACS Nano, 2020, 14, 2385-2394.	7.3	27
22	Old materials with new properties II: The metal carbides. Nano Today, 2018, 18, 12-14.	6.2	26
23	Surface Engineering of Twoâ€Dimensional Materials. ChemNanoMat, 2019, 5, 6-23.	1.5	22
24	Substrate Reconstruction Mediated Unidirectionally Aligned Molecular Dipole Dot Arrays. Journal of Physical Chemistry C, 2012, 116, 11565-11569.	1.5	20
25	Ionizationâ€Facilitated Formation of 2D (Alumino)Silicateâ€“Noble Gas Clathrate Compounds. Advanced Functional Materials, 2019, 29, 1806583.	7.8	20
26	New properties with old materials: Layered black phosphorous. Nano Today, 2017, 12, 7-9.	6.2	19
27	Surface Reconstruction of Germanium: Hydrogen Intercalation and Graphene Protection. Journal of Physical Chemistry C, 2018, 122, 21874-21882.	1.5	19
28	Phosphorus Nanostripe Arrays on Cu(110): A Case Study to Understand the Substrate Effect on the Phosphorus thin Film Growth. Advanced Materials Interfaces, 2017, 4, 1601167.	1.9	18
29	Halogen-Adatom Mediated Phase Transition of Two-Dimensional Molecular Self-Assembly on a Metal Surface. Langmuir, 2018, 34, 553-560.	1.6	18
30	Epitaxial growth of elemental 2D materials: What can we learn from the periodic table?. Nano Today, 2020, 30, 100805.	6.2	18
31	Bio-Inspired Passion Fruit-like Fe₃O₄@C Nanospheres Enabling High-Stability Magnetorheological Performances. Langmuir, 2020, 36, 7706-7714.	1.6	15
32	Recent Advances in Tin: From Two-Dimensional Quantum Spin Hall Insulator to Bulk Dirac Semimetal. Journal of Physical Chemistry Letters, 2020, 11, 1317-1329.	2.1	15
33	Interfacial Effects on the Growth of Atomically Thin Film: Group VA Elements on Au(111). Advanced Materials Interfaces, 2019, 6, 1901050.	1.9	14
34	Single molecule tunneling spectroscopy investigation of reversibly switched dipolar vanadyl phthalocyanine on graphite. Applied Physics Letters, 2014, 104, .	1.5	13
35	Defect Generation and Surface Functionalization on Epitaxial Blue Phosphorene by C60 Adsorption. Journal of Physical Chemistry C, 2019, , .	1.5	13
36	Electric-Field-Induced Molecular Switch of Single Dipolar Phthalocyanine on Cu(111): A Scanning Tunneling Microscopy Study. Journal of Physical Chemistry C, 2015, 119, 19802-19807.	1.5	11

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37	Atomic mechanism for the growth of wafer-scale single-crystal graphene: theoretical perspective and scanning tunneling microscopy investigations. 2D Materials, 2017, 4, 042002.	2.0	11
38	Carbon nanotubes advance next-generation electronics. Nano Today, 2020, 35, 100992.	6.2	11
39	Imaging and Dynamics of Water Hexamer Confined in Nanopores. ACS Nano, 2019, 13, 10622-10630.	7.3	10
40	Reversible oxidation and reduction of gold-supported iron oxide islands at room temperature. Journal of Chemical Physics, 2020, 152, 074710.	1.2	10
41	Epitaxial growth of single tellurium atomic wires on a Cu2Sb surface alloy. Applied Physics Letters, 2020, 116, .	1.5	10
42	Surface strain mediated dipole alignment of ClAlPc on Au(111). Applied Physics Letters, 2015, 106, .	1.5	9
43	Tailoring structural features and functions of fullerene rod crystals by a ferrocene-modified fullerene derivative. CrystEngComm, 2020, 22, 6287-6294.	1.3	7
44	Phase Engineering of Epitaxial Stanene on a Surface Alloy. Journal of Physical Chemistry Letters, 2021, 12, 211-217.	2.1	6
45	Structure of water at ionic liquid/Ag interface probed by surface enhanced Raman spectroscopy. Science China Chemistry, 2011, 54, 200-204.	4.2	5
46	Experimental Realization and Phase Engineering of a Two-Dimensional SnSb Binary Honeycomb Lattice. ACS Nano, 2021, 15, 16335-16343.	7.3	5
47	Submolecular Imaging of Parallel Offset Ï€â€“Ï€ Stacking in Nonplanar Phthalocyanine Bilayers. Journal of Physical Chemistry C, 2019, 123, 7178-7184.	1.5	4
48	Atomic mechanism of the phase transition in monolayer bismuthene on copper oxide. Physical Review Materials, 2021, 5, .	0.9	4
49	Two-Dimensional Iron Oxide on Au(111): Growth Mechanism and Interfacial Properties. Journal of Physical Chemistry C, 2021, 125, 24755-24763.	1.5	4
50	Graphene: Copper-Vapor-Assisted Rapid Synthesis of Large AB-Stacked Bilayer Graphene Domains on Cu-Ni Alloy (Small 15/2016). Small, 2016, 12, 1962-1962.	5.2	3
51	Lateral epitaxial growth of two-dimensional heterostructure linked by gold adatoms. Nano Research, 2021, 14, 887-892.	5.8	3
52	CHAPTER 3. Low-Dimensional Supramolecular Assemblies on Surfaces. RSC Smart Materials, 2014, , 98-118.	0.1	2
53	Conformational Transitions of Phase-Separated Binary Molecules Assisted by Surface Dehalogenation. Langmuir, 2019, 35, 3507-3512.	1.6	1
54	Interface-doping modulated structural and electronic properties of two-dimensional silica supported on metal substrate. Applied Surface Science, 2020, 506, 144677.	3.1	1

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55	Phosphorene. , 2022, , 121-148.		1
56	2Dâ€(Alumino)Silicateâ€Noble Clathrates: Ionizationâ€Facilitated Formation of 2D (Alumino)Silicateâ€“Noble Gas Clathrate Compounds (Adv. Funct. Mater. 20/2019). Advanced Functional Materials, 2019, 29, 1970137.	7.8	0
57	Singleâ€Crystal Graphene Wafers: Epitaxial Growth of 6 in. Singleâ€Crystalline Graphene on a Cu/Ni (111) Film at 750 Â°C via Chemical Vapor Deposition (Small 22/2019). Small, 2019, 15, 1970120.	5.2	0