Ludwig Bartels

List of Publications by Year
in descending order

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49 papers	2,917 citations	218677 26 h-index	233421 45 g-index
51 all docs	51 docs citations	51 times ranked	5875 citing authors

#	Article	IF	Citations
1	Synthesis and Efficient Visible Light Photocatalytic Hydrogen Evolution of Polymeric g-C₃N₄ Coupled with CdS Quantum Dots. Journal of Physical Chemistry C, 2012, 116, 13708-13714.	3.1	646
2	2â€Dimensional Transition Metal Dichalcogenides with Tunable Direct Band Gaps: MoS_{2(1â€“x)}Se_{2x} Monolayers. Advanced Materials, 2014, 26, 1399-1404.	21.0	334
3	A Homomolecular Porous Network at a Cu(111) Surface. Science, 2006, 313, 961-962.	12.6	244
4	Chemical Vapor Deposition Growth of Few-Layer MoTe₂ in the 2H, 1Tâ€², and 1T Phases: Tunable Properties of MoTe₂ Films. ACS Nano, 2017, 11, 900-905.	14.6	173
5	Ag₃PO₄ Oxygen Evolution Photocatalyst Employing Synergistic Action of Ag/AgBr Nanoparticles and Graphene Sheets. Journal of Physical Chemistry C, 2012, 116, 20132-20139.	3.1	130
6	Superlinear Composition-Dependent Photocurrent in CVD-Grown Monolayer MoS_{2(1â€“x)}Se_{2x} Alloy Devices. Nano Letters, 2015, 15, 2612-2619.	9.1	118
7	Postgrowth Tuning of the Bandgap of Single-Layer Molybdenum Disulfide Films by Sulfur/Selenium Exchange. ACS Nano, 2014, 8, 4672-4677.	14.6	101
8	Strong electron-hole symmetric Rashba spin-orbit coupling in graphene/monolayer transition metal dichalcogenide heterostructures. Physical Review B, 2017, 96, .	3.2	101
9	Scalable fabrication of a hybrid field-effect and acousto-electric device by direct growth of monolayer MoS2/LiNbO3. Nature Communications, 2015, 6, 8593.	12.8	91
10	Toward the Growth of an Aligned Single-Layer MoS₂ Film. Langmuir, 2011, 27, 11650-11653.	3.5	84
11	Controlled argon beam-induced desulfurization of monolayer molybdenum disulfide. Journal of Physics Condensed Matter, 2013, 25, 252201.	1.8	75
12	Toward Ferroelectric Control of Monolayer MoS₂. Nano Letters, 2015, 15, 3364-3369.	9.1	62
13	Facile growth of monolayer MoS2 film areas on SiO2. European Physical Journal B, 2013, 86, 1.	1.5	61
14	Low Resistivity and High Breakdown Current Density of 10 nm Diameter van der Waals TaSe₃ Nanowires by Chemical Vapor Deposition. Nano Letters, 2019, 19, 4355-4361.	9.1	55
15	Large-scale arrays of single- and few-layer MoS₂nanomechanical resonators. Nanoscale, 2016, 8, 10677-10685.	5.6	51
16	Effect of Distance on Photoluminescence Quenching and Proximity-Induced Spinâ€“Orbit Coupling in Graphene/WSe₂ Heterostructures. Nano Letters, 2018, 18, 3580-3585.	9.1	41
17	Band structure characterization of WS2 grown by chemical vapor deposition. Applied Physics Letters, 2016, 108, .	3.3	40
18	2,5-dichlorothiophenol on Cu(111): Initial adsorption site and scanning tunnel microscope-based abstraction of hydrogen at high intramolecular selectivity. Journal of Chemical Physics, 2003, 119, 10879-10884.	3.0	36

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19	A Quantitative Approach to Hydrogen Bonding at a Metal Surface. Journal of the American Chemical Society, 2007, 129, 12056-12057.	13.7	35
20	2D material printer: a deterministic cross contamination-free transfer method for atomically layered materials. 2D Materials, 2019, 6, 015006.	4.4	32
21	Loss and coupling tuning via heterogeneous integration of MoS2 layers in silicon photonics [Invited]. Optical Materials Express, 2019, 9, 751.	3.0	32
22	Testbeds for Transition Metal Dichalcogenide Photonics: Efficacy of Light Emission Enhancement in Monomer vs Dimer Nanoscale Antennae. ACS Photonics, 2017, 4, 1713-1721.	6.6	31
23	Nanoscale plasmonic phenomena in CVD-grown MoS_2 monolayer revealed by ultra-broadband synchrotron radiation based nano-FTIR spectroscopy and near-field microscopy. Optics Express, 2016, 24, 1154.	3.4	30
24	Chemical vapor deposition growth of a periodic array of single-layer MoS ₂ islands via lithographic patterning of an SiO ₂ /Si substrate. 2D Materials, 2015, 2, 045014.	4.4	29
25	A semi-empirical integrated microring cavity approach for 2D material optical index identification at 1.55 Î¼m. Nanophotonics, 2019, 8, 435-441.	6.0	27
26	Unveiling Valley Lifetimes of Free Charge Carriers in Monolayer WSe₂. Nano Letters, 2020, 20, 3147-3154.	9.1	27
27	Coverage and nearest-neighbor dependence of adsorbate diffusion. Journal of Chemical Physics, 2005, 123, 201102.	3.0	26
28	Single layer MoS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>on the Cu(111) surface: First-principles electronic structure calculations. Physical Review B, 2012, 85, .	3.2	26
29	Atoms-First Curriculum: A Comparison of Student Success in General Chemistry. Journal of Chemical Education, 2013, 90, 1433-1436.	2.3	21
30	Growth of aligned Mo6S6 nanowires on Cu(111). Surface Science, 2013, 611, 1-4.	1.9	20
31	Gold Dispersion and Activation on the Basal Plane of Single-Layer MoS₂. Journal of Physical Chemistry C, 2018, 122, 267-273.	3.1	16
32	H-Atom Position as Pattern-Determining Factor in Arenethiol Films. Journal of the American Chemical Society, 2009, 131, 5540-5545.	13.7	14
33	Combined electrical transport and capacitance spectroscopy of a MoS2-LiNbO3 field effect transistor. Applied Physics Letters, 2017, 110, .	3.3	14
34	An MoS_x Structure with High Affinity for Adsorbate Interaction. Angewandte Chemie - International Edition, 2012, 51, 10284-10288.	13.8	13
35	Methoxy Formation Induced Defects on MoS₂. Journal of Physical Chemistry C, 2018, 122, 10042-10049.	3.1	11
36	A Single Layer of MoS2 Activates Gold for Room Temperature CO Oxidation on an Inert Silica Substrate. Journal of Physical Chemistry C, 2019, 123, 6592-6598.	3.1	11

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37	Scalable and Transfer-Free Fabrication of MoS2/SiO2 Hybrid Nanophotonic Cavity Arrays with Quality Factors Exceeding 4000. Scientific Reports, 2017, 7, 7251.	3.3	10
38	Metallic vs. semiconducting properties of quasi-one-dimensional tantalum selenide van der Waals nanoribbons. Nanoscale, 2022, 14, 6133-6143.	5.6	10
39	2D materials in electro-optic modulation: energy efficiency, electrostatics, mode overlap, material transfer and integration. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	9
40	High-Vacuum Particulate-Free Deposition of Wafer-Scale Mono-, Bi-, and Trilayer Molybdenum Disulfide with Superior Transport Properties. ACS Applied Materials & Interfaces, 2018, 10, 33457-33463.	8.0	7
41	Single- and few-layer transfer-printed CVD MoS2 nanomechanical resonators with enhancement by thermal annealing. , 2016, , .		4
42	Metallic Transport in Chemical Vapor Deposition ZrTe3 Nanoribbons on a SiO2 Wafer Substrate. Crystal Growth and Design, 0, , .	3.0	4
43	How Photoinduced Gate Screening and Leakage Currents Dynamically Change the Fermi Level in 2D Materials. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000298.	2.4	3
44	Epitaxial Molybdenum Disulfide/Gallium Nitride Junctions: Low-Knee-Voltage Schottky-Diode Behavior at Optimized Interfaces. ACS Applied Materials & Interfaces, 2021, 13, 35105-35112.	8.0	3
45	Hybrid single-layer/bulk tungsten diselenide transistors by lithographic encoding of material thickness in chemical vapor deposition. 2D Materials, 2019, 6, 015017.	4.4	2
46	Methanol carbonylation to acetaldehyde on Au particles supported by single-layer MoS₂ grown on silica. Journal of Physics Condensed Matter, 2022, 34, 104005.	1.8	1
47	Preface: Special Topic on Supramolecular Self-Assembly at Surfaces. Journal of Chemical Physics, 2015, 142, 101501.	3.0	0
48	Synthesis and Characterization of Novel TMD: Rhenium Disulfide. , 2018, , .		0
49	Recent progress on the scalable fabrication of hybrid polymer/SiO2 nanophotonic cavity arrays with an encapsulated MoS2 film. , 2018, , .		0