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	Metallic vs. semiconducting properties of quasi-one-dimensional tantalum selenide van der Waals nanoribbons. Nanoscale, 2022, 14, 6133-6143.	5.6	10
2	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
3	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
4	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
5	Unveiling Valley Lifetimes of Free Charge Carriers in Monolayer WSe₂. Nano Letters, 2020, 20, 3147-3154.	9.1	27
6	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
7	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
8	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
9	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
10	2D material printer: a deterministic cross contamination-free transfer method for atomically layered materials. 2D Materials, 2019, 6, 015006.	4.4	32
11	Loss and coupling tuning via heterogeneous integration of MoS2 layers in silicon photonics [Invited]. Optical Materials Express, 2019, 9, 751.	3.0	32
12	Methoxy Formation Induced Defects on MoS₂. Journal of Physical Chemistry C, 2018, 122, 10042-10049.	3.1	11
13	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
14	Gold Dispersion and Activation on the Basal Plane of Single-Layer MoS₂. Journal of Physical Chemistry C, 2018, 122, 267-273.	3.1	16
15	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
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	Synthesis and Characterization of Novel TMD: Rhenium Disulfide. , 2018, , .		0
18	Recent progress on the scalable fabrication of hybrid polymer/SiO2 nanophotonic cavity arrays with an encapsulated MoS2 film. , 2018, , .		0

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19	Combined electrical transport and capacitance spectroscopy of a MoS2-LiNbO3 field effect transistor. Applied Physics Letters, 2017, 110, .	3.3	14
20	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
21	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
22	Strong electron-hole symmetric Rashba spin-orbit coupling in graphene/monolayer transition metal dichalcogenide heterostructures. Physical Review B, 2017, 96, .	3.2	101
23	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
24	Single- and few-layer transfer-printed CVD MoS2 nanomechanical resonators with enhancement by thermal annealing. , 2016, , .		4
25	Band structure characterization of WS2 grown by chemical vapor deposition. Applied Physics Letters, 2016, 108, .	3.3	40
26	Large-scale arrays of single- and few-layer MoS₂nanomechanical resonators. Nanoscale, 2016, 8, 10677-10685.	5.6	51
27	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
28	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
29	Toward Ferroelectric Control of Monolayer MoS₂. Nano Letters, 2015, 15, 3364-3369.	9.1	62
30	Preface: Special Topic on Supramolecular Self-Assembly at Surfaces. Journal of Chemical Physics, 2015, 142, 101501.	3.0	0
31	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
32	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
33	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
34	Postgrowth Tuning of the Bandgap of Single-Layer Molybdenum Disulfide Films by Sulfur/Selenium Exchange. ACS Nano, 2014, 8, 4672-4677.	14.6	101
35	Growth of aligned Mo6S6 nanowires on Cu(111). Surface Science, 2013, 611, 1-4.	1.9	20
36	Atoms-First Curriculum: A Comparison of Student Success in General Chemistry. Journal of Chemical Education, 2013, 90, 1433-1436.	2.3	21

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37	Facile growth of monolayer MoS2 film areas on SiO2. European Physical Journal B, 2013, 86, 1.	1.5	61
38	Controlled argon beam-induced desulfurization of monolayer molybdenum disulfide. Journal of Physics Condensed Matter, 2013, 25, 252201.	1.8	75
39	An MoS_x Structure with High Affinity for Adsorbate Interaction. Angewandte Chemie - International Edition, 2012, 51, 10284-10288.	13.8	13
40	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
41	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
42	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
43	Toward the Growth of an Aligned Single-Layer MoS₂ Film. Langmuir, 2011, 27, 11650-11653.	3.5	84
44	H-Atom Position as Pattern-Determining Factor in Arenethiol Films. Journal of the American Chemical Society, 2009, 131, 5540-5545.	13.7	14
45	A Quantitative Approach to Hydrogen Bonding at a Metal Surface. Journal of the American Chemical Society, 2007, 129, 12056-12057.	13.7	35
46	A Homomolecular Porous Network at a Cu(111) Surface. Science, 2006, 313, 961-962.	12.6	244
47	Coverage and nearest-neighbor dependence of adsorbate diffusion. Journal of Chemical Physics, 2005, 123, 201102.	3.0	26
48	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
49	Metallic Transport in Chemical Vapor Deposition ZrTe3 Nanoribbons on a SiO2 Wafer Substrate. Crystal Growth and Design, 0, , .	3.0	4