

Shengxi Huang

List of Publications by Year in descending order

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57
papers

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172457
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197818
49
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62
all docs

62
docs citations

62
times ranked

8331
citing authors

#	ARTICLE	IF	CITATIONS
1	The renaissance of black phosphorus. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4523-4530.	7.1	1,143
2	Dielectric Screening of Excitons and Trions in Single-Layer MoS ₂ . Nano Letters, 2014, 14, 5569-5576.	9.1	520
3	Anisotropic Electron-Photon and Electron-Phonon Interactions in Black Phosphorus. Nano Letters, 2016, 16, 2260-2267.	9.1	328
4	Probing the Interlayer Coupling of Twisted Bilayer MoS ₂ Using Photoluminescence Spectroscopy. Nano Letters, 2014, 14, 5500-5508.	9.1	228
5	Tuning Electronic Structure of Single Layer MoS ₂ through Defect and Interface Engineering. ACS Nano, 2018, 12, 2569-2579.	14.6	203
6	Parallel Stitching of 2D Materials. Advanced Materials, 2016, 28, 2322-2329.	21.0	195
7	Low-Frequency Interlayer Breathing Modes in Few-Layer Black Phosphorus. Nano Letters, 2015, 15, 4080-4088.	9.1	182
8	In-Plane Optical Anisotropy of Layered Gallium Telluride. ACS Nano, 2016, 10, 8964-8972.	14.6	179
9	Molecular Selectivity of Graphene-Enhanced Raman Scattering. Nano Letters, 2015, 15, 2892-2901.	9.1	177
10	Low-Frequency Interlayer Raman Modes to Probe Interface of Twisted Bilayer MoS ₂ . Nano Letters, 2016, 16, 1435-1444.	9.1	177
11	Raman spectroscopy of transition metal dichalcogenides. Journal of Physics Condensed Matter, 2016, 28, 353002.	1.8	168
12	Lighting Up the Raman Signal of Molecules in the Vicinity of Graphene Related Materials. Accounts of Chemical Research, 2015, 48, 1862-1870.	15.6	141
13	Defect Engineering in Single-Layer MoS ₂ Using Heavy Ion Irradiation. ACS Applied Materials & Interfaces, 2018, 10, 42524-42533.	8.0	138
14	Controlled Sculpture of Black Phosphorus Nanoribbons. ACS Nano, 2016, 10, 5687-5695.	14.6	111
15	Phonon localization in heat conduction. Science Advances, 2018, 4, eaat9460.	10.3	108
16	Enhancement of van der Waals Interlayer Coupling through Polar Janus MoSSe. Journal of the American Chemical Society, 2020, 142, 17499-17507.	13.7	80
17	Black Phosphorus: Optical Characterization, Properties and Applications. Small, 2017, 13, 1700823.	10.0	63
18	Unravelling the Thickness Dependence and Mechanism of Surface-Enhanced Raman Scattering on Ti ₃ C ₂ T _x MXene Nanosheets. Journal of Physical Chemistry C, 2020, 124, 17772-17782.	3.1	56

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19	Ultrasmall Mode Volumes in Plasmonic Cavities of Nanoparticleâ€Mirror Structures. <i>Small</i> , 2016, 12, 5190-5199.	10.0	53
20	Sensitive Phonon-Based Probe for Structure Identification of 1Tâ€ ² MoTe ₂ . <i>Journal of the American Chemical Society</i> , 2017, 139, 8396-8399.	13.7	46
21	Asymmetric hot-carrier thermalization and broadband photoresponse in graphene-2D semiconductor lateral heterojunctions. <i>Science Advances</i> , 2019, 5, eaav1493.	10.3	43
22	Quantized thermoelectric Hall effect induces giant power factor in a topological semimetal. <i>Nature Communications</i> , 2020, 11, 6167.	12.8	43
23	Designing artificial two-dimensional landscapes via atomic-layer substitution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	43
24	Effect of oscillator strength and intermediate resonance on the performance of resonant phonon-based terahertz quantum cascade lasers. <i>Journal of Applied Physics</i> , 2013, 113, 113109.	2.5	38
25	Generating Sub-nanometer Pores in Single-Layer MoS ₂ by Heavy-Ion Bombardment for Gas Separation: A Theoretical Perspective. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 28909-28917.	8.0	37
26	Spectroscopic Signatures of Interlayer Coupling in Janus MoS ₂ /MoS ₂ Heterostructures. <i>ACS Nano</i> , 2021, 15, 14394-14403.	14.6	36
27	Chirality-Dependent Second Harmonic Generation of MoS ₂ Nanoscroll with Enhanced Efficiency. <i>ACS Nano</i> , 2020, 14, 13333-13342.	14.6	34
28	Chemical and Bio Sensing Using Graphene-Enhanced Raman Spectroscopy. <i>Nanomaterials</i> , 2019, 9, 516.	4.1	31
29	Defect creation in WSe ₂ with a microsecond photoluminescence lifetime by focused ion beam irradiation. <i>Nanoscale</i> , 2020, 12, 2047-2056.	5.6	30
30	Raman Enhancement of Blood Constituent Proteins Using Graphene. <i>ACS Photonics</i> , 2018, 5, 2978-2982.	6.6	29
31	Enhanced Raman Scattering on Nine 2D van der Waals Materials. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3043-3050.	4.6	27
32	Topological Singularity Induced Chiral Kohn Anomaly in a Weyl Semimetal. <i>Physical Review Letters</i> , 2020, 124, 236401.	7.8	27
33	Understanding Interlayer Coupling in TMD-hBN Heterostructure by Raman Spectroscopy. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 4059-4067.	3.0	26
34	Direct Observation of Symmetry-Dependent Electronâ€Phonon Coupling in Black Phosphorus. <i>Journal of the American Chemical Society</i> , 2019, 141, 18994-19001.	13.7	21
35	Symmetry-Controlled Electronâ€Phonon Interactions in van der Waals Heterostructures. <i>ACS Nano</i> , 2019, 13, 552-559.	14.6	20
36	Rapid Biomarker Screening of Alzheimerâ€™s Disease by Interpretable Machine Learning and Graphene-Assisted Raman Spectroscopy. <i>ACS Nano</i> , 2022, 16, 6426-6436.	14.6	19

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37	Accurate virus identification with interpretable Raman signatures by machine learning. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	19
38	15-nm channel length MoS ₂ ; FETs with single- and double-gate structures. , 2015, , .		18
39	Anisotropic Fano resonance in the Weyl semimetal candidate LaAlSi. Physical Review B, 2020, 102, .	3.2	16
40	Probing interlayer interaction via chiral phonons in layered honeycomb materials. Physical Review B, 2021, 103, .	3.2	14
41	Application of tungsten as a carbon sink for synthesis of large-domain uniform monolayer graphene free of bilayers/multilayers. Nanoscale, 2015, 7, 4929-4934.	5.6	12
42	Large Photothermal Effect in Sub-40 nm h-BN Nanostructures Patterned Via High-Resolution Ion Beam. Small, 2018, 14, 1800072.	10.0	12
43	Engineered 2D materials for optical bioimaging and path toward therapy and tissue engineering. Journal of Materials Research, 2022, 37, 1689-1713.	2.6	12
44	Anomalous phonon-mode dependence in polarized Raman spectroscopy of the topological Weyl semimetal TaP. Physical Review B, 2020, 101, .	3.2	8
45	Photoluminescence Induced by Substitutional Nitrogen in Single-Layer Tungsten Disulfide. ACS Nano, 2022, 16, 7428-7437.	14.6	7
46	Graphene-Enhanced Raman Scattering (GERS): Chemical Effect. , 2018, , 415-449.		6
47	Coherent Lattice Wobbling and Out-of-Phase Intensity Oscillations of Friedel Pairs Observed by Ultrafast Electron Diffraction. ACS Nano, 2020, 14, 8449-8458.	14.6	5
48	A case study of on-chip sensor network in multiprocessor system-on-chip. , 2009, , .		4
49	Probing charge transfer in 2D MoS ₂ /tellurene type-II "n heterojunctions. MRS Communications, 2021, 11, 868-872.	1.8	4
50	Design of complementary GAA-NW tunneling-FETs of axial Si-Ge heterostructure. , 2010, , .		2
51	Core-shell type of tunneling nanowire FETs for large driving current with unipolarity. , 2011, , .		2
52	Photothermal Effect: Large Photothermal Effect in Sub-40 nm h-BN Nanostructures Patterned Via High-Resolution Ion Beam (Small 22/2018). Small, 2018, 14, 1870101.	10.0	1
53	Signature of Many-Body Localization of Phonons in Strongly Disordered Superlattices. Nano Letters, 2021, 21, 7419-7425.	9.1	1
54	Design optimization of GNR tunneling-FETs for low voltage operation using EHT-based NEGF simulation. , 2010, , .		0

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55	Device Design for Gate-All-Around-Nanowire Tunneling CMOS-FETs of Axial Ge/Si Heterojunction Through Inverter Performance Evaluation. Journal of Computational and Theoretical Nanoscience, 2012, 9, 510-515.	0.4	0
56	Double Resonance Raman Spectroscopy of Two-Dimensional Materials. Springer Series in Materials Science, 2019, , 131-162.	0.6	0
57	Enhancing Second Harmonic Generation of Transition Metal Dichalcogenides Through 1D Nanoscrolls. , 2021, , .		0