

# Shengxi Huang

## List of Publications by Year in descending order

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57  
papers

4,953  
citations

172207

29  
h-index

197535

49  
g-index

62  
all docs

62  
docs citations

62  
times ranked

8331  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rapid Biomarker Screening of Alzheimer's Disease by Interpretable Machine Learning and Graphene-Assisted Raman Spectroscopy. ACS Nano, 2022, 16, 6426-6436.	7.3	19
2	Photoluminescence Induced by Substitutional Nitrogen in Single-Layer Tungsten Disulfide. ACS Nano, 2022, 16, 7428-7437.	7.3	7
3	Engineered 2D materials for optical bioimaging and path toward therapy and tissue engineering. Journal of Materials Research, 2022, 37, 1689-1713.	1.2	12
4	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, .	3.3	19
5	Probing interlayer interaction via chiral phonons in layered honeycomb materials. Physical Review B, 2021, 103, .	1.1	14
6	Signature of Many-Body Localization of Phonons in Strongly Disordered Superlattices. Nano Letters, 2021, 21, 7419-7425.	4.5	1
7	Spectroscopic Signatures of Interlayer Coupling in Janus MoSSe/MoS <sub>2</sub> Heterostructures. ACS Nano, 2021, 15, 14394-14403.	7.3	36
8	Designing artificial two-dimensional landscapes via atomic-layer substitution. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	43
9	Enhancing Second Harmonic Generation of Transition Metal Dichalcogenides Through 1D Nanoscrolls. , 2021, , .		0
10	Probing charge transfer in 2D MoS <sub>2</sub> /tellurene type-II p-n heterojunctions. MRS Communications, 2021, 11, 868-872.	0.8	4
11	Defect creation in WSe <sub>2</sub> with a microsecond photoluminescence lifetime by focused ion beam irradiation. Nanoscale, 2020, 12, 2047-2056.	2.8	30
12	Unravelling the Thickness Dependence and Mechanism of Surface-Enhanced Raman Scattering on Ti <sub>3</sub> C <sub>2</sub> T <sub>X</sub> MXene Nanosheets. Journal of Physical Chemistry C, 2020, 124, 17772-17782.	1.5	56
13	Quantized thermoelectric Hall effect induces giant power factor in a topological semimetal. Nature Communications, 2020, 11, 6167.	5.8	43
14	Enhancement of van der Waals Interlayer Coupling through Polar Janus MoSSe. Journal of the American Chemical Society, 2020, 142, 17499-17507.	6.6	80
15	Chirality-Dependent Second Harmonic Generation of MoS <sub>2</sub> Nanoscroll with Enhanced Efficiency. ACS Nano, 2020, 14, 13333-13342.	7.3	34
16	Topological Singularity Induced Chiral Kohn Anomaly in a Weyl Semimetal. Physical Review Letters, 2020, 124, 236401.	2.9	27
17	Coherent Lattice Wobbling and Out-of-Phase Intensity Oscillations of Friedel Pairs Observed by Ultrafast Electron Diffraction. ACS Nano, 2020, 14, 8449-8458.	7.3	5
18	Anomalous phonon-mode dependence in polarized Raman spectroscopy of the topological Weyl semimetal TaP. Physical Review B, 2020, 101, .	1.1	8

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19	Anisotropic Fano resonance in the Weyl semimetal candidate LaAlSi. <i>Physical Review B</i> , 2020, 102, .	1.1	16
20	Direct Observation of Symmetry-Dependent Electron-Phonon Coupling in Black Phosphorus. <i>Journal of the American Chemical Society</i> , 2019, 141, 18994-19001.	6.6	21
21	Asymmetric hot-carrier thermalization and broadband photoresponse in graphene-2D semiconductor lateral heterojunctions. <i>Science Advances</i> , 2019, 5, eaav1493.	4.7	43
22	Enhanced Raman Scattering on Nine 2D van der Waals Materials. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3043-3050.	2.1	27
23	Chemical and Bio Sensing Using Graphene-Enhanced Raman Spectroscopy. <i>Nanomaterials</i> , 2019, 9, 516.	1.9	31
24	Symmetry-Controlled Electron-Phonon Interactions in van der Waals Heterostructures. <i>ACS Nano</i> , 2019, 13, 552-559.	7.3	20
25	Double Resonance Raman Spectroscopy of Two-Dimensional Materials. <i>Springer Series in Materials Science</i> , 2019, , 131-162.	0.4	0
26	Tuning Electronic Structure of Single Layer MoS <sub>2</sub> through Defect and Interface Engineering. <i>ACS Nano</i> , 2018, 12, 2569-2579.	7.3	203
27	Graphene-Enhanced Raman Scattering (GERS): Chemical Effect. , 2018, , 415-449.		6
28	Large Photothermal Effect in Sub-40 nm hBN Nanostructures Patterned Via High-Resolution Ion Beam. <i>Small</i> , 2018, 14, 1800072.	5.2	12
29	Defect Engineering in Single-Layer MoS <sub>2</sub> Using Heavy Ion Irradiation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 42524-42533.	4.0	138
30	Phonon localization in heat conduction. <i>Science Advances</i> , 2018, 4, eaat9460.	4.7	108
31	Photothermal Effect: Large Photothermal Effect in Sub-40 nm hBN Nanostructures Patterned Via High-Resolution Ion Beam (Small 22/2018). <i>Small</i> , 2018, 14, 1870101.	5.2	1
32	Generating Sub-nanometer Pores in Single-Layer MoS <sub>2</sub> by Heavy-Ion Bombardment for Gas Separation: A Theoretical Perspective. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 28909-28917.	4.0	37
33	Raman Enhancement of Blood Constituent Proteins Using Graphene. <i>ACS Photonics</i> , 2018, 5, 2978-2982.	3.2	29
34	Understanding Interlayer Coupling in TMD-hBN Heterostructure by Raman Spectroscopy. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 4059-4067.	1.6	26
35	Sensitive Phonon-Based Probe for Structure Identification of 1T MoTe <sub>2</sub> . <i>Journal of the American Chemical Society</i> , 2017, 139, 8396-8399.	6.6	46
36	Black Phosphorus: Optical Characterization, Properties and Applications. <i>Small</i> , 2017, 13, 1700823.	5.2	63

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37	Parallel Stitching of 2D Materials. <i>Advanced Materials</i> , 2016, 28, 2322-2329.	11.1	195
38	Controlled Sculpture of Black Phosphorus Nanoribbons. <i>ACS Nano</i> , 2016, 10, 5687-5695.	7.3	111
39	Ultrasmall Mode Volumes in Plasmonic Cavities of Nanoparticle-Mirror Structures. <i>Small</i> , 2016, 12, 5190-5199.	5.2	53
40	In-Plane Optical Anisotropy of Layered Gallium Telluride. <i>ACS Nano</i> , 2016, 10, 8964-8972.	7.3	179
41	Raman spectroscopy of transition metal dichalcogenides. <i>Journal of Physics Condensed Matter</i> , 2016, 28, 353002.	0.7	168
42	Low-Frequency Interlayer Raman Modes to Probe Interface of Twisted Bilayer MoS <sub>2</sub> . <i>Nano Letters</i> , 2016, 16, 1435-1444.	4.5	177
43	Anisotropic Electron-Photon and Electron-Phonon Interactions in Black Phosphorus. <i>Nano Letters</i> , 2016, 16, 2260-2267.	4.5	328
44	Application of tungsten as a carbon sink for synthesis of large-domain uniform monolayer graphene free of bilayers/multilayers. <i>Nanoscale</i> , 2015, 7, 4929-4934.	2.8	12
45	Lighting Up the Raman Signal of Molecules in the Vicinity of Graphene Related Materials. <i>Accounts of Chemical Research</i> , 2015, 48, 1862-1870.	7.6	141
46	The renaissance of black phosphorus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 4523-4530.	3.3	1,143
47	Low-Frequency Interlayer Breathing Modes in Few-Layer Black Phosphorus. <i>Nano Letters</i> , 2015, 15, 4080-4088.	4.5	182
48	Molecular Selectivity of Graphene-Enhanced Raman Scattering. <i>Nano Letters</i> , 2015, 15, 2892-2901.	4.5	177
49	15-nm channel length MoS <sub>2</sub> FETs with single- and double-gate structures. , 2015, , .		18
50	Probing the Interlayer Coupling of Twisted Bilayer MoS <sub>2</sub> Using Photoluminescence Spectroscopy. <i>Nano Letters</i> , 2014, 14, 5500-5508.	4.5	228
51	Dielectric Screening of Excitons and Trions in Single-Layer MoS <sub>2</sub> . <i>Nano Letters</i> , 2014, 14, 5569-5576.	4.5	520
52	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.	1.1	38
53	Device Design for Gate-All-Around-Nanowire Tunneling CMOS-FETs of Axial Ge-Si Heterojunction Through Inverter Performance Evaluation. <i>Journal of Computational and Theoretical Nanoscience</i> , 2012, 9, 510-515.	0.4	0
54	Core-shell type of tunneling nanowire FETs for large driving current with unipolarity. , 2011, , .		2

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55	Design optimization of GNR tunneling-FETs for low voltage operation using EHT-based NEGF simulation. , 2010, , .		0
56	Design of complementary GAA-NW tunneling-FETs of axial Si-Ge heterostructure. , 2010, , .		2
57	A case study of on-chip sensor network in multiprocessor system-on-chip. , 2009, , .		4