

Keji Lai

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4415353/publications.pdf>

Version: 2024-02-01

65
papers

5,589
citations

126907

33
h-index

118850

62
g-index

68
all docs

68
docs citations

68
times ranked

8469
citing authors

#	ARTICLE	IF	CITATIONS
1	Gigahertz topological valley Hall effect in nanoelectromechanical phononic crystals. Nature Electronics, 2022, 5, 157-163.	26.0	37
2	Second-harmonic and linear spectroscopy of WSe_2 . Physical Review Materials, 2022, 6, .	26.0	22
3	Electrical control of surface acoustic waves. Nature Electronics, 2022, 5, 348-355.	26.0	22
4	Evidence for a higher-order topological insulator in a three-dimensional material built from van der Waals stacking of bismuth-halide chains. Nature Materials, 2021, 20, 473-479.	27.5	98
5	Electro-optic response in epitaxially stabilized orthorhombic WSe_2 . Physical Review Materials, 2021, 5, .	2.4	8
6	Phonon renormalization in reconstructed MoS_2 moiré superlattices. Nature Materials, 2021, 20, 1100-1105.	27.5	121
7	Superior photo-carrier diffusion dynamics in organic-inorganic hybrid perovskites revealed by spatiotemporal conductivity imaging. Nature Communications, 2021, 12, 5009.	12.8	10
8	Direct Visualization of Gigahertz Acoustic Wave Propagation in Suspended Phononic Circuits. Physical Review Applied, 2021, 16, .	3.8	10
9	Visualization of acoustic power flow in suspended thin-film lithium niobate phononic devices. Applied Physics Letters, 2021, 119, .	3.3	5
10	Monolayer 1T-NbSe_2 as a 2D-correlated magnetic insulator. Science Advances, 2021, 7, eabi6339.	10.3	39
11	Coherent acoustic control of a single silicon vacancy spin in diamond. Nature Communications, 2020, 11, 193.	12.8	92
12	A native oxide high- κ gate dielectric for two-dimensional electronics. Nature Electronics, 2020, 3, 473-478.	26.0	141
13	Nanoscale Conductivity Imaging of Correlated Electronic States in WSe_2 Moiré Superlattices. Physical Review Letters, 2020, 125, 186803.	7.8	36
14	Uniform High-k Amorphous Native Oxide Synthesized by Oxygen Plasma for Top-Gated Transistors. Nano Letters, 2020, 20, 7469-7475.	9.1	37
15	Imaging Acoustic Waves by Microwave Microscopy: Microwave Impedance Microscopy for Visualizing Gigahertz Acoustic Waves. IEEE Microwave Magazine, 2020, 21, 60-71.	0.8	10
16	Emergence of a competing stripe phase near the Mott transition in Ti-doped bilayer calcium ruthenates. Physical Review B, 2020, 101, .	3.2	6
17	Domain wall-localized phonons in BiFeO_3 : spectrum and selection rules. Npj Computational Materials, 2020, 6, .	8.7	2
18	Unveiling defect-mediated carrier dynamics in monolayer semiconductors by spatiotemporal microwave imaging. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13908-13913.	7.1	24

#	ARTICLE	IF	CITATIONS
19	Lithium-ion electrolytic substrates for sub-1V high-performance transition metal dichalcogenide transistors and amplifiers. <i>Nature Communications</i> , 2020, 11, 3203.	12.8	31
20	Epitaxial integration of ferroelectric and conductive perovskites on silicon. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	2.1	5
21	Unexpected Giant Microwave Conductivity in a Nominally Silent BiFeO ₃ Domain Wall. <i>Advanced Materials</i> , 2020, 32, 1905132.	21.0	22
22	Microwave Microscopy and Its Applications. <i>Annual Review of Materials Research</i> , 2020, 50, 105-130.	9.3	24
23	Atomic layer deposition of epitaxial ferroelectric barium titanate on Si(001) for electronic and photonic applications. <i>Journal of Applied Physics</i> , 2019, 126, .	2.5	19
24	Phononic Band Structure Engineering for High-Q Gigahertz Surface Acoustic Wave Resonators on Lithium Niobate. <i>Physical Review Applied</i> , 2019, 12, .	3.8	70
25	Visualization of Local Conductance in MoS ₂ /WSe ₂ Heterostructure Transistors. <i>Nano Letters</i> , 2019, 19, 1976-1981.	9.1	36
26	Microwave-to-optical conversion using lithium niobate thin-film acoustic resonators. <i>Optica</i> , 2019, 6, 1498.	9.3	152
27	Quantitative measurements of nanoscale permittivity and conductivity using tuning-fork-based microwave impedance microscopy. <i>Review of Scientific Instruments</i> , 2018, 89, 043704.	1.3	26
28	Polarization retention in ultra-thin barium titanate films on Ge(001). <i>Applied Physics Letters</i> , 2018, 112, .	3.3	7
29	Energy-Resolved Photoconductivity Mapping in a Monolayer/Bilayer WSe ₂ Lateral Heterostructure. <i>Nano Letters</i> , 2018, 18, 7200-7206.	9.1	26
30	Piezoelectric modulation of nonlinear optical response in BaTiO ₃ thin film. <i>Applied Physics Letters</i> , 2018, 113, 132902.	3.3	13
31	Interferometric imaging of nonlocal electromechanical power transduction in ferroelectric domains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 5338-5342.	7.1	9
32	Visualization of Surface-Acoustic-Wave Potential by Transmission-Mode Microwave Impedance Microscopy. <i>Physical Review Applied</i> , 2018, 9, .	3.8	19
33	Microwave conductivity of ferroelectric domains and domain walls in a hexagonal rare-earth ferrite. <i>Physical Review B</i> , 2018, 98, .	3.2	16
34	Emergent Low-Symmetry Phases and Large Property Enhancements in Ferroelectric KNbO ₃ Bulk Crystals. <i>Advanced Materials</i> , 2017, 29, 1700530.	21.0	26
35	Low-energy structural dynamics of ferroelectric domain walls in hexagonal rare-earth manganites. <i>Science Advances</i> , 2017, 3, e1602371.	10.3	52
36	Photoconductivity: Tailoring Semiconductor Lateral Multijunctions for Giant Photoconductivity Enhancement (<i>Adv. Mater.</i> 41/2017). <i>Advanced Materials</i> , 2017, 29, .	21.0	0

#	ARTICLE	IF	CITATIONS
37	Out-of-Plane Piezoelectricity and Ferroelectricity in Layered In_2Se_3 Nanoflakes. Nano Letters, 2017, 17, 5508-5513.	9.1	567
38	Tailoring Semiconductor Lateral Multijunctions for Giant Photoconductivity Enhancement. Advanced Materials, 2017, 29, 1703680.	21.0	21
39	Advances of the development of a ferroelectric field-effect transistor on Ge(001). , 2017, , .		1
40	Direct imaging of sketched conductive nanostructures at the $\text{LaAlO}_3/\text{SrTiO}_3$ interface. Applied Physics Letters, 2017, 111, 233104.	3.3	4
41	Impact of grain boundaries on efficiency and stability of organic-inorganic trihalide perovskites. Nature Communications, 2017, 8, 2230.	12.8	220
42	Noninvasive conductivity imaging of 2D materials and devices by microwave impedance microscopy. , 2016, , .		2
43	Uncovering edge states and electrical inhomogeneity in MoS_2 field-effect transistors. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8583-8588.	7.1	94
44	Direct Imaging of Dynamic Glassy Behavior in a Strained Manganite Film. Physical Review Letters, 2015, 115, 265701.	7.8	24
45	Nanoscale scanning microwave impedance microscopy on advanced functional materials. , 2015, , .		0
46	Unexpected edge conduction in mercury telluride quantum wells under broken time-reversal symmetry. Nature Communications, 2015, 6, 7252.	12.8	101
47	Carrier density modulation in a germanium heterostructure by ferroelectric switching. Nature Communications, 2015, 6, 6067.	12.8	75
48	Thermal Oxidation of WSe_2 Nanosheets Adhered on SiO_2/Si Substrates. Nano Letters, 2015, 15, 4979-4984.	9.1	84
49	Direct Imaging of Nanoscale Conductance Evolution in Ion-Gel-Gated Oxide Transistors. Nano Letters, 2015, 15, 4730-4736.	9.1	28
50	Toward air-stable multilayer phosphorene thin-films and transistors. Scientific Reports, 2015, 5, 8989.	3.3	344
51	Thickness-Dependent Dielectric Constant of Few-Layer In_2Se_3 Nanoflakes. Nano Letters, 2015, 15, 8136-8140.	9.1	99
52	Mesoscale Imperfections in MoS_2 Atomic Layers Grown by a Vapor Transport Technique. Nano Letters, 2014, 14, 4682-4686.	9.1	67
53	Weak Antilocalization in $\text{Bi}_2(\text{SeTe})_3$ Nanoribbons and Nanoplates. Nano Letters, 2012, 12, 1107-1111.	9.1	166
54	Batch-fabricated cantilever probes with electrical shielding for nanoscale dielectric and conductivity imaging. Journal of Micromechanics and Microengineering, 2012, 22, 115040.	2.6	58

#	ARTICLE	IF	CITATIONS
55	Rapid Surface Oxidation as a Source of Surface Degradation Factor for Bi_2Se_3 . ACS Nano, 2011, 5, 4698-4703.	14.6	320
56	Ambipolar field effect in the ternary topological insulator $(\text{Bi}_x\text{Sb}_{1-x})_2\text{Te}_3$ by composition tuning. Nature Nanotechnology, 2011, 6, 705-709.	31.5	345
57	Nanoscale microwave microscopy using shielded cantilever probes. Applied Nanoscience (Switzerland), 2011, 1, 13-18.	3.1	73
58	Imaging of Coulomb-Driven Quantum Hall Edge States. Physical Review Letters, 2011, 107, 176809.	7.8	70
59	Cryogenic microwave imaging of metal-insulator transition in doped silicon. Review of Scientific Instruments, 2011, 82, 033705.	1.3	41
60	Topological Insulator Nanowires and Nanoribbons. Nano Letters, 2010, 10, 329-333.	9.1	298
61	Aharonov-Bohm interference in topological insulator nanoribbons. Nature Materials, 2010, 9, 225-229.	27.5	727
62	Mesoscopic Percolating Resistance Network in a Strained Manganite Thin Film. Science, 2010, 329, 190-193.	12.6	192
63	Ultrathin Topological Insulator Bi_2Se_3 Nanoribbons Exfoliated by Atomic Force Microscopy. Nano Letters, 2010, 10, 3118-3122.	9.1	163
64	Nanoscale Electronic Inhomogeneity in In_2Se_3 Nanoribbons Revealed by Microwave Impedance Microscopy. Nano Letters, 2009, 9, 1265-1269.	9.1	91
65	Hierarchy of Electronic Properties of Chemically Derived and Pristine Graphene Probed by Microwave Imaging. Nano Letters, 2009, 9, 3762-3765.	9.1	58