Kenneth S Burch

List of Publications by Year
in descending order

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62 papers	4,062 citations	159585 30 h-index	118850 62 g-index
65 all docs	65 docs citations	65 times ranked	6007 citing authors

#	Article	IF	Citations
1	Electronic Raman scattering in the 2D antiferromagnet NiPS ₃. Science Advances, 2022, 8, eabl7707.	10.3	13
2	Rapid, Multianalyte Detection of Opioid Metabolites in Wastewater. ACS Nano, 2022, 16, 3704-3714.	14.6	19
3	Phase-Controllable Synthesis of Ultrathin Molybdenum Nitride Crystals Via Atomic Substitution of MoS₂. Chemistry of Materials, 2022, 34, 351-357.	6.7	12
4	Emergent Multifunctional Magnetic Proximity in van der Waals Layered Heterostructures. Advanced Science, 2022, 9, .	11.2	17
5	Signatures of non-Loudon-Fleury Raman scattering in the Kitaev magnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î²</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mrow><mml:mi> Physical Review B, 2022, 105, .	3.2	5
6	Axial Higgs mode detected by quantum pathway interference in RTe3. Nature, 2022, 606, 896-901.	27.8	14
7	Dynamical Anyon Generation in Kitaev Honeycomb Non-Abelian Spin Liquids. Physical Review Letters, 2022, 129, .	7.8	6
8	Evidence for Dominant Phonon-Electron Scattering in Weyl Semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>WP</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m Physical Review X, 2021, 11, .	8.9	28
9	Topology and geometry under the nonlinear electromagnetic spotlight. Nature Materials, 2021, 20, 1601-1614.	27.5	71
10	Layer Hall effect in a 2D topological axion antiferromagnet. Nature, 2021, 595, 521-525.	27.8	136
11	Evidence of a coupled electron-phonon liquid in NbGe2. Nature Communications, 2021, 12, 5292.	12.8	8
12	ac Susceptometry of 2D van der Waals Magnets Enabled by the Coherent Control of Quantum Sensors. PRX Quantum, 2021, 2, .	9.2	5
13	Topological Magnon Band Crossing in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">Y</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: Physical Review Letters, 2021, 127, 267203.	7.8	4
14	Modulation Doping via a Two-Dimensional Atomic Crystalline Acceptor. Nano Letters, 2020, 20, 8446-8452.	9.1	44
15	Accessing new magnetic regimes by tuning the ligand spin-orbit coupling in van der Waals magnets. Science Advances, 2020, 6, eabb9379.	10.3	42
16	A cleanroom in a glovebox. Review of Scientific Instruments, 2020, 91, 073909.	1.3	13
17	Detection of a multiâ€disease biomarker in saliva with graphene field effect transistors. Medical Devices & Sensors, 2020, 3, e10121.	2.7	11
18	High mobility in a van der Waals layered antiferromagnetic metal. Science Advances, 2020, 6, eaay6407.	10.3	85

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19	Dielectrophoresis assisted rapid, selective and single cell detection of antibiotic resistant bacteria with G-FETs. Biosensors and Bioelectronics, 2020, 156, 112123.	10.1	62
20	The range of non-Kitaev terms and fractional particles in Î±-RuCl3. Npj Quantum Materials, 2020, 5, .	5.2	38
21	Evidence for Helical Hinge Zero Modes in an Fe-Based Superconductor. Nano Letters, 2019, 19, 4890-4896.	9.1	51
22	Colossal mid-infrared bulk photovoltaic effect in a type-I Weyl semimetal. Nature Materials, 2019, 18, 471-475.	27.5	253
23	Coulomb blockade in an atomically thin quantum dot coupled to a tunable Fermi reservoir. Nature Nanotechnology, 2019, 14, 442-446.	31.5	54
24	Uncovering electron-phonon scattering and phonon dynamics in type-I Weyl semimetals. Physical Review B, 2019, 100, .	3.2	29
25	Possible structural transformation and enhanced magnetic fluctuations in exfoliated Î±-RuCl3. Journal of Physics and Chemistry of Solids, 2019, 128, 291-295.	4.0	49
26	Controlling Magnetic and Optical Properties of the van der Waals Crystal CrCl_{3â^'}_xBr_x via Mixed Halide Chemistry. Advanced Materials, 2018, 30, e1801325.	21.0	100
27	Magnetism in two-dimensional van der Waals materials. Nature, 2018, 563, 47-52.	27.8	994
28	Electric switching of magnetism in 2D. Nature Nanotechnology, 2018, 13, 532-532.	31.5	36
29	Atomic-scale strain manipulation of a charge density wave. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6986-6990.	7.1	47
30	Charge transfer in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mtext>EuS/Bi</mml:mtext><mml:mn>2</mml:mn> heterostructures as indicated by the absence of Raman scattering. Physical Review B, 2018, 98, .	3.2	12
31	Understanding the evolution of anomalous anharmonicity in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn> Physical Review B, 2017, 95, .	3.2	32
32	Andreev reflection without Fermi surface alignment in high-T_cvan der Waals heterostructures. New Journal of Physics, 2017, 19, 043026.	2.9	3
33	Low vibration high numerical aperture automated variable temperature Raman microscope. Review of Scientific Instruments, 2016, 87, 043105.	1.3	17
34	Local phonon mode in thermoelectric Bi2Te2Se from charge neutral antisites. Applied Physics Letters, 2016, 108, 041911.	3.3	26
35	Spin-orbit excitations and electronic structure of the putative Kitaev magnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mo>â^'</mml:mo> Physical Review B, 2016, 93, .	3.2	119
36	Automatic Spike Removal Algorithm for Raman Spectra. Applied Spectroscopy, 2016, 70, 1861-1871.	2.2	15

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37	Modeling tunneling for the unconventional superconducting proximity effect. Superconductor Science and Technology, 2016, 29, 125006.	3.5	6
38	Magneto-elastic coupling in a potential ferromagnetic 2D atomic crystal. 2D Materials, 2016, 3, 025035.	4.4	195
39	When Chiral Photons Meet Chiral Fermions: Photoinduced Anomalous Hall Effects in Weyl Semimetals. Physical Review Letters, 2016, 116, 026805.	7.8	143
40	Differences in Chemical Doping Matter: Superconductivity in Ti_{1â€“x}Ta_xSe₂ but Not in Ti_{1â€“x}Nb_xSe₂. Chemistry of Materials, 2016, 28, 1927-1935.	6.7	40
41	Sum-Rule Constraints on the Surface State Conductance of Topological Insulators. Physical Review Letters, 2015, 115, 116804.	7.8	22
42	Activation of Ultrathin Films of Hematite for Photoelectrochemical Water Splitting via H₂ Treatment. ChemSusChem, 2015, 8, 1557-1567.	6.8	51
43	Scattering Continuum and Possible Fractionalized Excitations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub><mml:mrow><mml:mi>RuCl</mml:mi> Physical Review Letters, 2015, 114, 147201.	7.8	367
44	Cooper-pair-based photon entanglement without isolated emitters. Physical Review B, 2014, 89, .	3.2	34
45	Evidence for a new excitation at the interface between a high-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>T</mml:mi><mml:mi>c</mml:mi></mml:msub> and a topological insulator. Physical Review B, 2014, 90, .	3.2	9
46	Mid-infrared Polaritonic Coupling between Boron Nitride Nanotubes and Graphene. ACS Nano, 2014, 8, 11305-11312.	14.6	38
47	Fe2O3/Cu2O heterostructured nanocrystals. Journal of Materials Chemistry A, 2014, 2, 8525-8533.	10.3	19
48	Doping-dependent charge dynamics in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Cu</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">Bi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Se</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, .	3.2	18
49	Optical evidence of surface state suppression in Bi-based topological insulators. Physical Review B, 2014, 89, .	3.2	56
50	Optical properties of SrTiO3 on silicon(100). Applied Physics Letters, 2013, 102, .	3.3	9
51	Crystal structure and elementary electronic properties of Bi-stabilized Î±-In2Se3. Materials Research Bulletin, 2013, 48, 2517-2521.	5.2	7
52	A ferromagnetic insulating substrate for the epitaxial growth of topological insulators. Journal of Applied Physics, 2013, 114, 114907.	2.5	138
53	Structural study of Bi2Sr2CaCu2O8+Î´ exfoliated nanocrystals. Applied Physics Letters, 2012, 101, 223106.	3.3	4
54	Hybrid High-Temperature-Superconductorâ€“Semiconductor Tunnel Diode. Physical Review X, 2012, 2, .	8.9	10

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55	Proximity-induced high-temperature superconductivity in the topological insulators Bi2Se3 and Bi2Te3. Nature Communications, 2012, 3, 1056.	12.8	153
56	Fabrication and characterization of topological insulator Bi2Se3 nanocrystals. Applied Physics Letters, 2011, 98, .	3.3	55
57	One-dimensional alignment of nanoparticles via magnetic sorting. Applied Physics Letters, 2010, 96, 163103.	3.3	6
58	Hybridization and Superconducting Gaps in the Heavy-Fermion Superconductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>PuCoGa</mml:mi><mml:mn>5</mml:mn></mml:msub></mml:math>Probed via the Dynamics of Photoinduced Quasiparticles. Physical Review Letters, 2010, 104, 227002.	7.8	23
59	Towards a Two-Dimensional Superconducting State of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>La</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi> a Moderate External Magnetic Field. Physical Review Letters, 2010, 104, 157002.	7.8	45
60	Optical properties of III-Mn-V ferromagnetic semiconductors. Journal of Magnetism and Magnetic Materials, 2008, 320, 3207-3228.	2.3	85
61	Broadband multi-interferometer spectroscopy in high magnetic fields: From THz to visible. Review of Scientific Instruments, 2004, 75, 4710-4717.	1.3	23
62	Subterahertz spectroscopy at He-3 temperatures. Review of Scientific Instruments, 2003, 74, 4703-4710.	1.3	16