

Kai Rossnagel

List of Publications by Year in descending order

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128
papers

5,480
citations

71102

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docs citations

131
times ranked

5745
citing authors

#	ARTICLE	IF	CITATIONS
1	Charting the Exciton-Polariton Landscape of WSe_2 Thin Flakes by Cathodoluminescence Spectroscopy. <i>Advanced Photonics Research</i> , 2022, 3, 2100124.	3.6	10
2	Real-space anisotropy of the superconducting gap in the charge-density wave material $2H-NbSe_2$. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	11
3	Creation of a novel inverted charge density wave state. <i>Structural Dynamics</i> , 2022, 9, 014501.	2.3	7
4	Interaction of excitons with Cherenkov radiation in WSe_2 beyond the non-recoil approximation. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 145101.	2.8	4
5	Quantum spins and hybridization in artificially-constructed chains of magnetic adatoms on a superconductor. <i>Nature Communications</i> , 2022, 13, 2160.	12.8	20
6	Digging deeper: Buried layers and interfaces studied by modified total electron yield and soft x-ray absorption spectroscopy. <i>Applied Physics Letters</i> , 2022, 120, 181601.	3.3	0
7	Coexisting ferromagnetic component and negative magnetoresistance at low temperature in single crystals of the vdW material $GaGeTe$. <i>Journal of Solid State Chemistry</i> , 2022, 312, 123106.	2.9	3
8	Microstructure effects on the phase transition behavior of a prototypical quantum material. <i>Scientific Reports</i> , 2022, 12, .	3.3	0
9	Tailoring the Band Structure of Plexcitonic Crystals by Strong Coupling. <i>ACS Photonics</i> , 2022, 9, 2473-2482.	6.6	7
10	Soft x-ray imaging spectroscopy with micrometer resolution. <i>Optica</i> , 2021, 8, 156.	9.3	6
11	Magnetic order and surface state gap in $(Sb_{0.95}Cr_{0.05})_2Te_3$. <i>Physical Review B</i> , 2021, 103, .	3.2	7
12	Structural involvement in the melting of the charge density wave in $TiSe_2$. <i>Physical Review Research</i> , 2021, 3, .	3.6	13
13	Hidden bulk and surface effects in the spin polarization of the nodal-line semimetal $ZrSiTe$. <i>Communications Physics</i> , 2021, 4, .	5.3	7
14	Correlation between electronic and structural orders in $TiSe_2$. <i>Physical Review Research</i> , 2021, 3, .	3.6	13
15	Ultrafast spot-profile LEED of a charge-density wave phase transition. <i>Applied Physics Letters</i> , 2021, 118, 221603.	3.3	5
16	Suppression of the vacuum space-charge effect in fs-photoemission by a retarding electrostatic front lens. <i>Review of Scientific Instruments</i> , 2021, 92, 053703.	1.3	17
17	Hard x-ray photoelectron spectroscopy: a snapshot of the state-of-the-art in 2020. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 233001.	1.8	55
18	Probing the Spin State of Spin-Crossover Complexes on Surfaces with Vacuum Ultraviolet Angle-Resolved Photoemission Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14105-14116.	3.1	3

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19	Momentum-space signatures of Berry flux monopoles in the Weyl semimetal TaAs. Nature Communications, 2021, 12, 3650.	12.8	20
20	Survival of Floquet-Bloch States in the Presence of Scattering. Nano Letters, 2021, 21, 5028-5035.	9.1	41
21	Experimental evidence for a metastable state in FeTe _{1-x} Se following coherent-phonon excitation. Journal of Electron Spectroscopy and Related Phenomena, 2021, 250, 147085.	1.7	5
22	van der Waals driven anharmonic melting of the 3D charge density wave in VSe ₂ . Nature Communications, 2021, 12, 598.	12.8	28
23	Ultrafast electronic linewidth broadening in the C π core level of graphene. Physical Review B, 2021, 104, .	12.8	18
24	Reversible coordination-induced spin-state switching in complexes on metal surfaces. Nature Nanotechnology, 2020, 15, 18-21.	31.5	64
25	Yu-Shiba-Rusinov States in the Charge-Density Modulated Superconductor NbSe ₂ . Nano Letters, 2020, 20, 339-344.	9.1	36
26	Structural dynamics of incommensurate charge-density waves tracked by ultrafast low-energy electron diffraction. Structural Dynamics, 2020, 7, 034304.	2.3	20
27	Attractive Coulomb interaction, temperature-dependent hybridization, and natural circular dichroism in $TiSe_2$. Physical Review B, 2020, 102, .	12.8	5
28	Non-local effect of impurity states on the exchange coupling mechanism in magnetic topological insulators. Npj Quantum Materials, 2020, 5, .	5.2	8
29	Collapse of layer dimerization in the photo-induced hidden state of 1T-TaS ₂ . Nature Communications, 2020, 11, 1247.	12.8	72
30	Transient three-dimensional structural dynamics in $TiSe_2$. Physical Review B, 2020, 101, .	3.2	9
31	Coherent modulation of the electron temperature and electron-phonon couplings in a 2D material. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8788-8793.	7.1	34
32	Direct time-domain determination of electron-phonon coupling strengths in chromium. Physical Review B, 2020, 102, .	3.2	4
33	Time- and momentum-resolved photoemission studies using time-of-flight momentum microscopy at a free-electron laser. Review of Scientific Instruments, 2020, 91, 013109.	1.3	72
34	Oxide Fermi liquid universality revealed by electron spectroscopy. Physical Review B, 2020, 102, .	3.2	3
35	Bypassing the Structural Bottleneck in the Ultrafast Melting of Electronic Order. Physical Review Letters, 2020, 125, 266402.	7.8	12
36	doublon bottleneck in the ultrafast relaxation dynamics of hot electrons in 1T-TaS ₂ . Physical Review Research, 2020, 2, .	3.6	8

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37	Influence of Ring Contraction on the Electronic Structure of Nickel Tetrapyrrole Complexes: Corrole vs Porphyrin. ECS Journal of Solid State Science and Technology, 2020, 9, 061005.	1.8	10
38	Light-induced manipulation of the charge density wave in 1T-TaSe2. , 2020, , .		0
39	Coherent electron-phonon couplings in a charge density wave material. , 2020, , .		0
40	Influence of Substrate Electronic Properties on the Integrity and Functionality of an Adsorbed Fe(II) Spin-Crossover Compound. Journal of Physical Chemistry C, 2019, 123, 17774-17780.	3.1	31
41	Surface structure and stacking of the commensurate (13Å–13)R13.9 charge density wave phase of 1T-TaS2(0001). Physical Review B, 2019, 100, .	3.2	14
42	Structural phase transitions and phase ordering at surfaces probed by ultrafast LEED. EPJ Web of Conferences, 2019, 205, 08005.	0.3	0
43	Surface states and Rashba-type spin polarization in antiferromagnetic MnBi (0001). Physical Review B, 2019, 100, .	3.2	14
44	High-accuracy bulk electronic bandmapping with eliminated diffraction effects using hard X-ray photoelectron momentum microscopy. Communications Physics, 2019, 2, .	5.3	26
45	Ultrafast electron calorimetry uncovers a new long-lived metastable state in 1T-TaSe2 mediated by mode-selective electron-phonon coupling. Science Advances, 2019, 5, eaav4449.	10.3	43
46	Excitation and Relaxation Dynamics of the Photo-Perturbed Correlated Electron System 1T-TaS2. Applied Sciences (Switzerland), 2019, 9, 44.	2.5	7
47	Orbital and Spin-Dependent Selective Hybridization of Se and Ti p States in TaS_2 . Physical Review Letters, 2019, 123, 236802.	7.8	46
48	80% Valley Polarization of Free Carriers in Singly Oriented Single-Layer TaS_2 on Au(111). Physical Review Letters, 2019, 123, 236802.	7.8	27
49	Light-Induced Spin Crossover in an Fe(II) Low-Spin Complex Enabled by Surface Adsorption. Journal of Physical Chemistry Letters, 2018, 9, 1491-1496.	4.6	35
50	Ultrafast Doublon Dynamics in Photoexcited TaS_2 . Physical Review Letters, 2018, 120, 166401.	7.8	76
51	Pushing the space-charge limit in electron momentum microscopy. New Journal of Physics, 2018, 20, 021001.	2.9	2
52	Phase ordering of charge density waves traced by ultrafast low-energy electron diffraction. Nature Physics, 2018, 14, 184-190.	16.7	110
53	Ultrafast Formation of a Fermi-Dirac Distributed Electron Gas. Physical Review Letters, 2018, 121, 256401.	7.8	46
54	More than electrons. Nature Materials, 2018, 17, 658-660.	27.5	2

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55	Electronic structure and ultrafast dynamics of FeAs-based superconductors by angle- and time-resolved photoemission spectroscopy. <i>Physica Status Solidi (B): Basic Research</i> , 2017, 254, 1600382.	1.5	9
56	Suppression of the Charge Density Wave State in Two-Dimensional $1T\text{-TiSe}_2$ by Atmospheric Oxidation. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 8981-8985.	13.8	48
57	Quasi-one-dimensional metallic band dispersion in the commensurate charge density wave of TaTe_2 . <i>Physical Review B</i> , 2017, 96, .	3.2	45
58	Suppression of the Charge Density Wave State in Two-Dimensional $1T\text{-TiSe}_2$ by Atmospheric Oxidation. <i>Angewandte Chemie</i> , 2017, 129, 9109-9113.	2.0	2
59	Enhanced ultrafast relaxation rate in the Weyl semimetal phase of MoTe_2 measured by time- and angle-resolved photoelectron spectroscopy. <i>Physical Review B</i> , 2017, 96, .	3.2	26
60	Time-resolved ARPES with sub-15 fs temporal and near Fourier-limited spectral resolution. <i>Review of Scientific Instruments</i> , 2016, 87, 103102.	1.3	48
61	Femtosecond terahertz dynamics of cooperative transitions: from charge density waves to polariton condensates. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
62	Photoinduced Enhancement of the Charge Density Wave Amplitude. <i>Physical Review Letters</i> , 2016, 117, 056401.	7.8	44
63	In situ hard x-ray photoemission spectroscopy of barrier-height control at metal/PMN-PT interfaces. <i>Physical Review B</i> , 2016, 93, .	3.2	13
64	Ultrafast Metamorphosis of a Complex Charge-Density Wave. <i>Physical Review Letters</i> , 2016, 116, 016402.	7.8	70
65	Momentum-resolved hot electron dynamics at the $2H\text{-TaS}_2$. <i>Physical Review B</i> , 2016, 94, .	3.2	16
66	Accessing and probing of the photo-induced hidden state in $1T\text{-TaS}_2$ with time- and angle-resolved photoemission spectroscopy. <i>Proceedings of SPIE</i> , 2016, , .	0.8	3
67	Time-resolved HAXPES using a microfocused XFEL beam: From vacuum space-charge effects to intrinsic charge-carrier recombination dynamics. <i>Scientific Reports</i> , 2016, 6, 35087.	3.3	21
68	Self-amplified photo-induced gap quenching in a correlated electron material. <i>Nature Communications</i> , 2016, 7, 12902.	12.8	50
69	Pump laser-induced space-charge effects in HHG-driven time- and angle-resolved photoelectron spectroscopy. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	36
70	Ultrafast Metamorphosis of a Complex Charge Density Wave in Tantalumdiselenite. , 2016, , .		0
71	Hot electron cooling in graphite: Supercollision versus hot phonon decay. <i>Physical Review B</i> , 2015, 92, .	3.2	38
72	Ultrafast dissection of excitonic and structural orders in a persisting charge density wave. , 2015, , .		0

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73	Time-resolved HAXPES at SACLA: probe and pump pulse-induced space-charge effects. <i>New Journal of Physics</i> , 2014, 16, 123045.	2.9	51
74	How fast can a Peierls-Mott insulator be melted?. <i>Faraday Discussions</i> , 2014, 171, 243-257.	3.2	53
75	Ultrafast Modulation of the Chemical Potential in BaFe_2 Coherent Phonons. <i>Physical Review Letters</i> , 2014, 112, .	7.8	56
76	Iron(II) Spin-Crossover Complexes in Ultrathin Films: Electronic Structure and Spin-State Switching by Visible and Vacuum-UV Light. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 3019-3023.	13.8	50
77	Chemical reaction dynamics II and Correlated systems, surfaces and catalysis: general discussion. <i>Faraday Discussions</i> , 2014, 171, 323-356.	3.2	0
78	Non-thermal separation of electronic and structural orders in a persisting charge density wave. <i>Nature Materials</i> , 2014, 13, 857-861.	27.5	181
79	Time- and angle-resolved photoemission spectroscopy with optimized high-harmonic pulses using frequency-doubled Ti:Sapphire lasers. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2014, 195, 231-236.	1.7	95
80	Does the excitation wavelength affect the ultrafast quenching dynamics of the charge-density wave in 1T-TiSe ₂ ?. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2014, 195, 244-248.	1.7	9
81	Electron Dynamics Probed by Time-Resolved Hard X-ray Photoelectron Spectroscopy. <i>Transactions of the Materials Research Society of Japan</i> , 2014, 39, 469-473.	0.2	7
82	Tracking the relaxation pathway of photo-excited electrons in 1T-TiSe ₂ . <i>European Physical Journal: Special Topics</i> , 2013, 222, 997-1004.	2.6	7
83	Electronic structure, adsorption geometry, and photoswitchability of azobenzene layers adsorbed on layered crystals. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 20272.	2.8	15
84	Quantum phase transition from triangular to stripe charge order in NbSe ₂ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 1623-1627.	7.1	145
85	A direct view onto the carrier dynamics in graphite at the H point. <i>EPJ Web of Conferences</i> , 2013, 41, 04022.	0.3	4
86	Time-domain evidence for an excitonic insulator. <i>EPJ Web of Conferences</i> , 2013, 41, 03022.	0.3	3
87	The growth and electronic structure of azobenzene-based functional molecules on layered crystals. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 394011.	1.8	1
88	Time-resolved x-ray photoelectron spectroscopy at FLASH. <i>New Journal of Physics</i> , 2012, 14, 013062.	2.9	69
89	Shooting Electronic Structure Movies with Time-resolved Photoemission. <i>Synchrotron Radiation News</i> , 2012, 25, 12-18.	0.8	4
90	Vacuum space-charge effects in nano-ARPES. <i>Physical Review B</i> , 2012, 85, .	3.2	26

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91	Time-domain classification of charge-density-wave insulators. Nature Communications, 2012, 3, 1069.	12.8	263
92	Gaps and kinks in the electronic structure of the superconductor NbSe_2 from angle-resolved photoemission at 1 K. Physical Review B, 2012, 85, .	3.2	109
93	Focusing light with a reflection photon sieve. Optics Letters, 2011, 36, 2405.	3.3	23
94	Collapse of long-range charge order tracked by time-resolved photoemission at high momenta. Nature, 2011, 471, 490-493.	27.8	406
95	On the origin of charge-density waves in select layered transition-metal dichalcogenides. Journal of Physics Condensed Matter, 2011, 23, 213001.	1.8	509
96	Laterally confined metal-to-insulator and quasi-two-dimensional to two-dimensional transition by focused Rb intercalation of 1T-TaS ₂ . Physical Review B, 2011, 84, .	3.2	6
97	Surface photovoltage effect at the WSe_2 Rb surface: Photoemission experiment and numerical model. Physical Review B, 2011, 83, .	3.2	4
98	Vacuum space charge effect in laser-based solid-state photoemission spectroscopy. Journal of Applied Physics, 2010, 107, .	2.5	57
99	Fermi-Surface Topology and Helical Antiferromagnetism in Heavy Lanthanide Metals. Physical Review Letters, 2010, 104, 246401.	7.8	27
100	Photoswitching of azobenzene multilayers on a layered semiconductor. Applied Physics Letters, 2010, 97, 063112.	3.3	16
101	Ultrafast Melting of a Charge-Density Wave in the Mott Insulator TaS_2 . Physical Review Letters, 2010, 105, 187401.	7.8	151
102	Suppression and emergence of charge-density waves at the surfaces of layered 1T-TiSe ₂ and 1T-TaS ₂ by in situ Rb deposition. New Journal of Physics, 2010, 12, 125018.	2.9	45
103	CDW-superlattice suppression probed in time-resolved XUV-photoemission at the border of the Brillouin zone. , 2010, , .		0
104	Vacuum space-charge effects in solid-state photoemission. Physical Review B, 2009, 79, .	3.2	112
105	Publisher's Note: Vacuum space-charge effects in solid-state photoemission [Phys. Rev. B 79 , 035402 (2009)]. Physical Review B, 2009, 79, .	3.2	5
106	Crystal structure of 1,4-bis(dimethoxy)phenyl-4,4'-quaterphenylene. Materials Letters, 2009, 63, 2399-2401.		
107	Stabilization of the Misfit Layer Compound $\text{PbS}_{1-x}\text{Tf}_x$ by Metal Cross Substitution. Physical Review Letters, 2008, 100, 065502.		
108	Electronic band structure and Fermi surface of ferromagnetic Tb: Experiment and theory. Physical Review B, 2007, 76, .	3.2	23

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109	Spin-orbit splitting, Fermi surface topology, and charge-density-wave gapping in $2H\text{-TaSe}_2$. <i>Physical Review B</i> , 2007, 76, .	3.2	25
110	Determination of the Hole Lifetime from Photoemission: $\text{Ti}3d$ States in TiTe_2 . <i>Physical Review Letters</i> , 2007, 98, 217604.	7.8	28
111	Spin-orbit coupling in the band structure of reconstructed $1T\text{-TaS}_2$. <i>Physical Review B</i> , 2006, 73, .	3.2	99
112	Electron states and the spin density wave phase diagram in $\text{Cr}(1-x)\text{V}_x\text{O}$ films. <i>New Journal of Physics</i> , 2005, 7, 114-114.	2.9	45
113	Continuous Tuning of Electronic Correlations by Alkali Adsorption on Layered $1T\text{-TaS}_2$. <i>Physical Review Letters</i> , 2005, 95, 126403.	7.8	24
114	Fermi surface, charge-density-wave gap, and kinks in $2H\text{-TaSe}_2$. <i>Physical Review B</i> , 2005, 72, .	3.2	59
115	Electronic Quasiparticle Renormalization on the Spin Wave Energy Scale. <i>Physical Review Letters</i> , 2004, 92, 097205.	7.8	80
116	Fermi Surface and Quasiparticle Dynamics of $\text{Na}_{0.7}\text{CoO}_2$ Investigated by Angle-Resolved Photoemission Spectroscopy. <i>Physical Review Letters</i> , 2004, 92, 246402.	7.8	214
117	Indium $7\text{-}\text{Å}$ - $3\text{on Si}(111)$: A Nearly Free Electron Metal in Two Dimensions. <i>Physical Review Letters</i> , 2003, 91, 246404.	7.8	107
118	Direct Comparison between Potential Landscape and Local Density of States in a Disordered Two-Dimensional Electron System. <i>Physical Review Letters</i> , 2002, 89, 136806.	7.8	72
119	Charge-density-wave phase transition in $1T\text{-TiSe}_2$: Excitonic insulator versus band-type Jahn-Teller mechanism. <i>Physical Review B</i> , 2002, 65, .	3.2	162
120	Electronic band structure of gallium nitride: a comparative angle-resolved photoemission study of single crystals and thin films. <i>Surface Science</i> , 2002, 507-510, 223-228.	1.9	13
121	Fermi surface of $2H\text{-NbSe}_2$ and its implications on the charge-density-wave mechanism. <i>Physical Review B</i> , 2001, 64, .	3.2	99
122	Three-dimensional Fermi surface determination by angle-resolved photoelectron spectroscopy. <i>Physical Review B</i> , 2001, 63, .	3.2	34
123	Electronic structure and UPS of the misfit chalcogenide $(\text{SnS})\text{NbS}_2$ and related compounds. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2001, 114-116, 1133-1138.	1.7	2
124	A high performance angle-resolving electron spectrometer. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2001, 467-468, 1485-1488.	1.6	21
125	Fermi Surface Map of the Single-Layer Bi-Cuprate $\text{Bi}_2\text{Sr}_2-x\text{La}_x\text{CuO}_6 + \delta$ at Optimal Doping. <i>Journal of Superconductivity and Novel Magnetism</i> , 2001, 14, 659-668.	0.5	2
126	Tuning Dimensionality by Nanowire Adsorption on Layered Materials. <i>Physical Review Letters</i> , 2001, 86, 1303-1306.	7.8	20

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127	Angle-resolved photoemission spectroscopy of Sr ₂ CuO ₂ Cl ₂ . Physical Review B, 2000, 63, .	3.2	40
128	How to Determine Fermi Vectors by Angle-Resolved Photoemission. Physical Review Letters, 1999, 83, 5551-5554.	7.8	35