Christoph Renner

List of Publications by Year
in descending order

82 papers	5,611 citations	136950 32 h-index	74163 75 g-index
83 all docs	83 docs citations	83 times ranked	5021 citing authors

#	Article	IF	Citations
1	Skyrmion-(Anti)Vortex Coupling in a Chiral Magnet-Superconductor Heterostructure. Physical Review Letters, 2021, 126, 117205.	7.8	35
2	Wang-MacDonald d -Wave Vortex Cores Observed in Heavily Overdoped Bi2Sr2CaCu2O8+Î´. Physical Review X, 2021, 11, .	8.9	3
3	Ultracompact Binary Permanent Rare-Earth Magnet with 1.25-T Center Field and Fast-Decaying Stray Field. Physical Review Applied, 2021, 16, .	3.8	2
4	Multiband charge density wave exposed in a transition metal dichalcogenide. Nature Communications, 2021, 12, 6037.	12.8	20
5	Insight into the Charge Density Wave Gap from Contrast Inversion in Topographic STM Images. Physical Review Letters, 2020, 125, 267603.	7.8	25
6	Towards surface diffusion potential mapping on atomic length scale. Journal of Applied Physics, 2019, 125, 184301.	2.5	2
7	Energy-dependent spatial texturing of charge order in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mo>â€"</mm Physical Review B, 2019, 99, .	3.2	16
8	Holographic imaging of the complex charge density wave order parameter. Physical Review Research, 2019, 1, .	3.6	19
9	Hole Transport in Exfoliated Monolayer MoS₂. ACS Nano, 2018, 12, 2669-2676.	14.6	41
10	Scanning Tunneling Microscopy of an Air Sensitive Dichalcogenide Through an Encapsulating Layer. Nano Letters, 2018, 18, 6696-6702.	9.1	9
11	Stripe and Short Range Order in the Charge Density Wave of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub><mml:mrow> Physical Review Letters, 2017, 118, 017002.	7.8	49
12	Subatomic electronic feature from dynamic motion of Si dimer defects in Bi nanolines on Si(001). Physical Review B, 2017, 96, .	3.2	2
13	Dimensional crossover of the charge density wave transition in thin exfoliated VSe 2. 2D Materials, 2017, 4, 041005.	4.4	57
14	Note: Mechanical <i>in situ</i> exfoliation of van der Waals materials. Review of Scientific Instruments, 2017, 88, 076104.	1.3	4
15	Observation of Caroliâ€"de Gennesâ€"Matricon Vortex States in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>YBa</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn> mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>7</mml:mn><mml:mo>â^'</mml:mo><mml:mi>Î´</mml:mi> Physical Review Letters, 2017, 119, 237001.	7.8	32
16	Electronic coupling between Bi nanolines and the Si(001) substrate: An experimental and theoretical study. Physical Review B, 2017, 96, .	3.2	2
17	Revisiting the vortex-core tunnelling spectroscopy in YBa2Cu3O7â^'Î´. Nature Communications, 2016, 7, 11139.	12.8	21
18	Scanning tunneling microscopy of the charge density wave in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mo>â€"</mml:m the presence of single atom defects. Physical Review B, 2015, 92, .	3.2	36

#	Article	IF	Citations
19	Structure of Self-Assembled Mn Atom Chains on Si(001). Physical Review Letters, 2015, 115, 256104.	7.8	9
20	Crystal-clear â€“ The '2014 Most Superlative Crystal Growth Contest' for School Classes. Chimia, 2014, 68, 893.	0.6	1
21	Surface transport and band gap structure of exfoliated 2H-MoTe ₂ crystals. 2D Materials, 2014, 1, 021002.	4.4	151
22	Doping Nature of Native Defects in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>T</mml:mi><mml:mtext>â^’</mml:mtext><mml:msub><mml:mrow><m Physical Review Letters, 2014, 112, 197001.	7.8	71
23	Quantitative Analysis of Scanning Tunneling Microscopy Images of Mixed-Ligand-Functionalized Nanoparticles. Langmuir, 2013, 29, 13723-13734.	3.5	32
24	High-Resolution Scanning Tunneling Microscopy Characterization of Mixed Monolayer Protected Gold Nanoparticles. ACS Nano, 2013, 7, 8529-8539.	14.6	76
25	Scalable Patterning of One-Dimensional Dangling Bond Rows on Hydrogenated Si(001). ACS Nano, 2013, 7, 4422-4428.	14.6	13
26	One-dimensional silicon nanolines in the Si(001):H surface. , 2013, , .		0
27	Half-filled orbital and unconventional geometry of a common dopant in Si(001). Physical Review B, 2013, 88, .	3.2	2
28	Piezoresistance in Silicon at Uniaxial Compressive Stresses up to 3 GPa. Physical Review Letters, 2012, 108, 256801.	7.8	18
29	Imaging oxygen defects and their motion at a manganite surface. Nature Communications, 2011, 2, 212.	12.8	44
30	Charge density waves in the graphene sheets of the superconductor CaC6. Nature Communications, 2011, 2, 558.	12.8	56
31	Manganese silicide nanowires on Si(001). Journal of Physics Condensed Matter, 2011, 23, 172001.	1.8	8
32	Endotaxial Si nanolines in Si(001):H. Physical Review B, 2011, 84, .	3.2	11
33	One-dimensional Si-in-Si(001) template for single-atom wire growth. Applied Physics Letters, 2010, 97, 093102.	3.3	12
34	Giant Piezoresistance Effects in Silicon Nanowires and Microwires. Physical Review Letters, 2010, 105, 226802.	7.8	119
35	Hands-on inspiration for science. Nature Materials, 2009, 8, 245-247.	27.5	3
36	Giant Room-Temperature Piezoresistance in a Metal-Silicon Hybrid Structure. Physical Review Letters, 2008, 100, 145501.	7.8	35

#	Article	IF	Citations
37	The surface layer of cleaved bilayer manganites. Nanotechnology, 2007, 18, 044020.	2.6	12
38	Scanning tunneling spectroscopy of high-temperature superconductors. Reviews of Modern Physics, 2007, 79, 353-419.	45.6	817
39	Molecular Thin Films: A New Type of Magnetic Switch. Advanced Materials, 2007, 19, 3618-3622.	21.0	133
40	Trapping, self-trapping and the polaron family. Journal of Physics Condensed Matter, 2007, 19, 255208.	1.8	182
41	Imaging of Polarons in Ferromagnetic Bilayered Manganites by Scanning Tunnelling Microscopy. Journal of Superconductivity and Novel Magnetism, 2007, 20, 531-533.	1.8	2
42	Scanning Tunneling Microscopy and Spectroscopy of Manganites. , 2007, , 534-558.		0
43	Polarons and confinement of electronic motion to two dimensions in a layered manganite. Nature, 2006, 440, 1025-1028.	27.8	100
44	Will nanotechnology change IT paradigms?. BT Technology Journal, 2006, 24, 163-169.	0.5	1
45	Charge ordering, stripes and phase separation in manganese perovskite oxides: An STM/STS study. Materials Science and Engineering C, 2005, 25, 775-778.	7.3	12
46	Scanning Tunneling Spectroscopy on High Temperature Superconductors. , 2002, , 487-502.		0
47	Atomic-scale images of charge ordering in a mixed-valence manganite. Nature, 2002, 416, 518-521.	27.8	231
48	Linear and Field-Independent Relation between Vortex Core State Energy and Gap inBi2Sr2CaCu2O8+Î´. Physical Review Letters, 2001, 87, 267001.	7.8	42
49	Scanning Tunneling Spectroscopy ofBi2Sr2CuO6+Î´: New Evidence for the Common Origin of the Pseudogap and Superconductivity. Physical Review Letters, 2001, 86, 4911-4914.	7.8	170
50	A 3He refrigerated scanning tunneling microscope in high magnetic fields and ultrahigh vacuum. Review of Scientific Instruments, 2000, 71, 1475-1478.	1.3	43
51	A 3He cooled scanning tunneling microscope in UHV and high fields. Physica B: Condensed Matter, 2000, 280, 551-552.	2.7	3
52	Temperature dependence of tunneling spectra in YBa2Cu3O7â^'Î´ and Bi2Sr2CaCu2O8+Î´ single crystals. Journal of Electron Spectroscopy and Related Phenomena, 2000, 109, 147-155.	1.7	12
53	Low-energy structures in vortex core tunneling spectra in Bi2Sr2CaCu2O8+Î´. Physica C: Superconductivity and Its Applications, 2000, 332, 440-444.	1.2	28
54	Piezoelectric response of epitaxial Pb(Zr0.2Ti0.8)O3 films measured by scanning tunneling microscopy. Applied Physics Letters, 2000, 77, 1701-1703.	3.3	31

#	Article	IF	Citations
55	Shape and motion of vortex cores inBi2Sr2CaCu2O8+Î´. Physical Review B, 2000, 62, 9179-9185.	3.2	31
56	Renneret al.Reply:. Physical Review Letters, 1999, 82, 3726-3726.	7.8	2
57	Specific heat of high temperature superconductors in high fields at Tc: from BCS to the Boseâ€“Einstein condensation. Physica C: Superconductivity and Its Applications, 1999, 317-318, 333-344.	1.2	65
58	Pseudogap Precursor of the Superconducting Gap in Under- and OverdopedBi2Sr2CaCu2O8+Î´. Physical Review Letters, 1998, 80, 149-152.	7.8	938
59	Rastertunnelspektroskopie auf Hochtemperatur-Supraleitern: OrtsaufgelÃ¶ste Tunnelspektroskopie und Abbildung des FluÃŸwirbelgitters. Physik Journal, 1998, 54, 427-430.	0.1	5
60	Observation of the Low Temperature Pseudogap in the Vortex Cores ofBi2Sr2CaCu2O8+Î´. Physical Review Letters, 1998, 80, 3606-3609.	7.8	301
61	VORTEX LATTICE IMAGING AND SPECTROSCOPIC STUDIES OF FLUX LINES BY SCANNING TUNNELING MICROSCOPY. Series on Directions in Condensed Matter Physics, 1998, , 226-244.	0.1	3
62	Critical currents approaching the depairing limit at a twin boundary in YBa2Cu3O7â^'Î´. Nature, 1997, 390, 487-490.	27.8	67
63	Tunneling spectroscopy and STS observation of vortices on high temperature superconductors. Physica C: Superconductivity and Its Applications, 1997, 282-287, 315-318.	1.2	6
64	Oxygen doping and temperature dependence of the tunneling spectroscopy on Bi2Sr2CaCu2O8+?. Journal of Low Temperature Physics, 1996, 105, 1083-1089.	1.4	40
65	Scanning tunneling spectroscopy studies on YBa2Cu3O7??. Journal of Low Temperature Physics, 1996, 105, 1129-1134.	1.4	13
66	Vacuum tunneling spectroscopy and asymmetric density of states ofBi2Sr2CaCu2O8+Î´. Physical Review B, 1995, 51, 9208-9218.	3.2	281
67	Direct Vortex Lattice Imaging and Tunneling Spectroscopy of Flux Lines onYBa2Cu3O7â^'Î´. Physical Review Letters, 1995, 75, 2754-2757.	7.8	538
68	Spatially resolved vacuum tunneling spectroscopy on Bi2Sr2CaCu2O8 by STM at 4.8K. Physica B: Condensed Matter, 1994, 194-196, 1689-1690.	2.7	17
69	Gap distribution of the tunneling spectra in Bi2Sr2CaCu2Ox and some other superconductors. Physica C: Superconductivity and Its Applications, 1994, 220, 55-60.	1.2	36
70	Non BCS IV characteristics of superconducting Bi2Sr2CaCu2O8+Î´ single crystals. Physica C: Superconductivity and Its Applications, 1994, 235-240, 53-56.	1.2	10
71	Vacuum tunneling spectroscopy of superconducting Bi 2 Sr 2 CaCu 2 O 8 using scanning tunneling microscopy. , 1994, 2158, 135.		2
72	Scanning tunneling spectroscopy of the Abrikosov flux lattice from the clean toward the dirty limit. Ultramicroscopy, 1992, 42-44, 699-704.	1.9	3

#	Article	IF	Citations
73	Studies of the surface structure of YBa2Cu3O7 thin films using STM. Ultramicroscopy, 1992, 42-44, 728-733.	1.9	9
74	A low-temperature scanning tunneling microscope with in-situ sample cleaving. Ultramicroscopy, 1992, 42-44, 1632-1637.	1.9	15
75	Scanning tunneling spectroscopy of a vortex core from the clean to the dirty limit. Physical Review Letters, 1991, 67, 1650-1652.	7.8	143
76	A vertical piezoelectric inertial slider. Review of Scientific Instruments, 1990, 61, 965-967.	1.3	123
77	Properties of homogeneous Y1-xPrxBa2Cu3O7 alloy thin films prepared using layer by layer growth. Physica B: Condensed Matter, 1990, 165-166, 1503-1504.	2.7	3
78	Scanning tunneling potentiometry studies of Y1Ba2Cu3O7â^'x and gold thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 459-463.	2.1	16
79	A versatile lowâ€temperature scanning tunneling microscope. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 330-332.	2.1	45
80	Study of fieldâ€emitting microstructures using a scanning tunneling microscope. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 594-597.	2.1	17
81	Enhanced field emission investigation of aluminum. IEEE Transactions on Electrical Insulation, 1989, 24, 911-916.	0.8	10
82	Direct measurements of the local electron transport properties in YBaCuO superconducting thin films. Physica C: Superconductivity and Its Applications, 1989, 162-164, 1035-1036.	1.2	2