Christoph Heil

List of Publications by Year
in descending order

26 papers	995 citations	566801 15 h-index	552369 26 g-index
26 all docs	26 docs citations	26 times ranked	1099 citing authors

#	Article	IF	Citations
1	Superconductivity in metastable phases of phosphorus-hydride compounds under high pressure. Physical Review B, 2016, 93, .	1.1	125
2	The 2021 quantum materials roadmap. JPhys Materials, 2020, 3, 042006.	1.8	111
3	Origin of Superconductivity and Latent Charge Density Wave in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>NbS</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review Letters, 2017, 119, 087003.	2.9	108
4	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>La</mml:mi><mml:msub><mml:mi>BH</mml:mi></mml:msub></mml:mrow></mml:math> : Towards 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></mml:math> low-pressure superconductivity in ternary superhydrides. Physical Review B, 2021, 104, .	1.1	95
5	Superconductivity in sodalite-like yttrium hydride clathrates. Physical Review B, 2019, 99, .	1.1	92
6	Influence of bonding on superconductivity in high-pressure hydrides. Physical Review B, 2015, 92, .	1.1	91
7	The 2021 room-temperature superconductivity roadmap. Journal of Physics Condensed Matter, 2022, 34, 183002.	0.7	79
8	Coexistence of Superconductivity with Enhanced Charge Density Wave Order in the Two-Dimensional Limit of TaSe₂. Journal of Physical Chemistry Letters, 2019, 10, 4076-4081.	2.1	44
9	Search for 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></mml:math> superconductivity at megabar pressures in the lithium-sulfur system. Physical Review B, 2016, 94, .	1.1	40
10	Absence of superconductivity in iron polyhydrides at high pressures. Physical Review B, 2018, 97, .	1.1	28
11	In-silico synthesis of lowest-pressure high-Tc ternary superhydrides. Npj Computational Materials, 2022, 8, .	3.5	25
12	Unusual Pressure-Induced Periodic Lattice Distortion in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>SnSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review Letters, 2018, 121, 027003.	2.9	24
13	Accurate bare susceptibilities from full-potentialab initiocalculations. Physical Review B, 2014, 90, .	1.1	23
14	Steady-state spectra, current, and stability diagram of a quantum dot: A nonequilibrium variational cluster approach. Physical Review B, 2012, 86, .	1.1	19
15	Manipulating surface magnetic order in iron telluride. Science Advances, 2019, 5, eaav3478.	4.7	18
16	Quasiparticle<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>G</mml:mi><mml:mi>W</mml:mi></mml:mrow></mml:math> structures and Fermi surfaces of bulk and monolayer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>NbS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math> Physical Review B, 2018, 98, .	1.1	15
17	Electronic, vibrational, and electronâ€“phonon coupling properties in SnSe₂ and SnS₂ under pressure. Journal of Materials Chemistry C, 2020, 8, 16404-16417.	2.7	12
18	Strong coupling expansion for the Boseâ€“Hubbard and Jaynesâ€“Cummings lattice models. Journal of Physics Condensed Matter, 2012, 24, 295601.	0.7	10

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19	Electronic structure and superconductivity of the non-centrosymmetric Sn₄As₃. New Journal of Physics, 2020, 22, 063049.	1.2	10
20	Intrinsic and doping-enhanced superconductivity in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>1</mml:mn><mml:mi>H</mml:mi><mml:mtext>â^'</mml:mtext></mml:mrow></mml:math>: Critical role of charge ordering and spin-orbit coupling. Physical Review B, 2022, 105, .	1.1	9
21	Magnetic surface reconstruction in the van der Waals antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Fe</mml:mi><mml:mrow><mml:mn>1</mml:mn> Physical Review B, 2021, 103, .	1.1	6
22	Effect of the iron valence in the two types of layers in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">LiFeO</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Fe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Se</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, .	1.1	4
23	Impact of the beam pipe design on the operation parameters of the superconducting magnets for the SIS 100 synchrotron of the FAIR project. Journal of Physics: Conference Series, 2010, 234, 032012.	0.3	2
24	Superconductivity and strong anharmonicity in novel Nbâ€“S phases. Journal of Physics Condensed Matter, 2021, 33, 174001.	0.7	2
25	Strain-Stabilized (Ï€, Ï€) Order at the Surface of Fe_{1+x}Te. Nano Letters, 2021, 21, 2786-2792.	4.5	2
26	Probing Magnetic Exchange Interactions with Helium. Physical Review Letters, 2021, 127, 166803.	2.9	1