Toomas RÃµÃµm

List of Publications by Year
in descending order

61 papers	2,354 citations	218381 26 h-index	205818 48 g-index
61 all docs	61 docs citations	61 times ranked	2322 citing authors

#	Article	IF	Citations
1	Terahertz spectroscopy of the helium endofullerene He@C₆₀. Physical Chemistry Chemical Physics, 2022, , .	1.3	5
2	Infrared spectroscopy of an endohedral water in fullerene. Journal of Chemical Physics, 2021, 154, 124311.	1.2	24
3	Duality and domain wall dynamics in a twisted Kitaev chain. Nature Physics, 2021, 17, 832-836.	6.5	28
4	InÂSitu Electric-Field Control of THz Nonreciprocal Directional Dichroism in the Multiferroic Ba2CoGe2O7. Physical Review Letters, 2021, 127, 157201.	2.9	3
5	Experimental determination of the interaction potential between a helium atom and the interior surface of a C60 fullerene molecule. Journal of Chemical Physics, 2021, 155, 144302.	1.2	15
6	Selection rules and dynamic magnetoelectric effect of the spin waves in multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Bi</mml:mi><mml:mi>Fe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2021, 104, .	1.1	2
7	Terahertz magneto-optical investigation of quadrupolar spin-lattice effects in magnetically frustrated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi mathvariant="normal">Mn</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:math> ions in the honeycomb multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">MnPS</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2021, 103, .	1.1	9
8	Terahertz magneto-optical investigation of quadrupolar spin-lattice effects in magnetically frustrated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Tb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">Ti</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:math>. Physical Review B, 2020, 102, .	1.1	10
9	Observation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>E</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:math> symmetry in the Ising chain ferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CoNb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>6</mml:mn></mml:msub></mml:mrow></mml:math>.	1.1	21
10	Magnetoelastic distortion of multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> in the canted antiferromagnetic state. Physical Review B, 2020, 102, .	1.1	6
11	Observation of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>E</mml:mi><mml:mn>8</mml:mn></mml:msub></mml:math> particles in an Ising chain antiferromagnet. Physical Review B, 2020, 101, .	1.1	20
12	Spin excitations of magnetoelectric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>LiNiPO</mml:mi><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math> in multiple magnetic phases. Physical Review B, 2019, 100, .	1.1	11
13	Magnetoelectric spectroscopy of spin excitations in LiCoPO4. Physical Review B, 2019, 100, .	1.1	5
14	Normal modes of a spin cycloid or helix. Physical Review B, 2019, 99, .	1.1	8
15	Directional dichroism in the paramagnetic state of multiferroics: A case study of infrared light absorption in Sr2CoSi2O7 at high temperatures. Physical Review B, 2019, 99, .	1.1	12
16	Synthesis and Properties of Open Fullerenes Encapsulating Ammonia and Methane. ChemPhysChem, 2018, 19, 266-276.	1.0	28
17	Terahertz absorption spectroscopy study of spin waves in orthoferrite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>YFeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> in a magnetic field. Physical Review B, 2018, 98, .	1.1	24
18	Identification of Antiferromagnetic Domains Via the Optical Magnetoelectric Effect. Physical Review Letters, 2018, 121, 057601.	2.9	28

#	ARTICLE	IF	CITATIONS
19	Magnetic resonances of multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>TbFe</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	1.1	10
20	Competing exchange interactions in multiferroic and ferrimagnetic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CaBaCo</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	1.1	16
21	Magnetic Excitations and Continuum of a Possibly Field-Induced Quantum Spin Liquid 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></mml:mrow> Physical Review Letters, 2017, 119, 227202.	2.9	135
22	The dipolar endofullerene HF@C60. Nature Chemistry, 2016, 8, 953-957.	6.6	167
23	Spin-induced polarizations and nonreciprocal directional dichroism of the room-temperature multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 92, .	1.1	23
24	Unidirectional terahertz light absorption in the pyroelectric ferrimagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>CaBaCo</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2015, 92, .	1.1	30
25	Optical Diode Effect at Spin-Wave Excitations of the Room-Temperature Multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>BiFeO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn> Physical Review Letters, 2015, 115, 127203.	2.9	65
26	Effect of spin excitations with simultaneous magnetic- and electric-dipole character on the static magnetoelectric properties of multiferroic materials. Physical Review B, 2014, 89, .	1.1	26
27	One-way transparency of four-coloured spin-wave excitations in multiferroic materials. Nature Communications, 2014, 5, 3203.	5.8	94
28	Infrared spectroscopy of small-molecule endofullerenes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20110631.	1.6	29
29	Terahertz Spectroscopy of Spin Waves in Multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>in High Magnetic Fields. Physical Review Letters, 2013, 110, 257201.	2.9	60
30	Optical spectroscopy shows that the normal state of URu ₂ Si ₂ is an anomalous Fermi liquid. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19161-19165.	3.3	45
31	Quantum rotation of ortho and para -water encapsulated in a fullerene cage. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12894-12898.	3.3	135
32	Chirality of matter shows up via spin excitations. Nature Physics, 2012, 8, 734-738.	6.5	128
33	Spin-Stretching Modes in Anisotropic Magnets: Spin-Wave Excitations in the Multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ba</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>CoGe</mml:mi><mml:mi><mml mathvariant="bold">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2012, 109, .	2.9	61
34	Observation of multiple-gap structure in hidden order state of URu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>Si<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>from optical conductivity. Physical Review B, 2012, 86, .	1.1	16
35	Optical investigations of the superconducting energy gap in Î²â€³â€(BEDTâ€TTF)₂SF₅CH₂CF₂SO₃. Physica Status Solidi (B): Basic Research, 2012, 249, 985-990.	1.5	4
36	Interaction potential and infrared absorption of endohedral H2 in C60. Journal of Chemical Physics, 2011, 134, 054507.	1.2	63

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37	Infrared spectroscopy of endohedral HD and D2 in C60. Journal of Chemical Physics, 2011, 135, 114511.	1.2	43
38	Theory and spectroscopy of an incarcerated quantum rotor: The infrared spectroscopy, inelastic neutron scattering and nuclear magnetic resonance of H2@C60 at cryogenic temperature. Coordination Chemistry Reviews, 2011, 255, 938-948.	9.5	58
39	Optical signature of subgap absorption in the superconducting state of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Ba</mml:mtext><mml:msub><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mro Physical Review B, 2010, 82, .	1.1	38
40	Optical Spectroscopy of Superconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Ba</mml:mi><mml:mn>0.55</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="bold">K</mml:mi><mml:mn>0.45</mml:mn></mml:msub><mml:msub><mml:mi>Fe</mml:mi><mml:mn>2</mml:mn></ Evidence for Strong Coupling to Low-Energy Bosons. Physical Review Letters, 2009, 102, 187003.	2.9	68
41	Magnetic excitations and optical transitions in the multiferroic spin-12systemLiCu2O2. Physical Review B, 2009, 80, .	1.1	25
42	Rotor in a cage: Infrared spectroscopy of an endohedral hydrogen-fullerene complex. Journal of Chemical Physics, 2009, 130, 081103.	1.2	90
43	Infrared spectra of the low-dimensional quantum magnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SrCu</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml Measurements andab initiocalculat. Physical Review B, 2009, 79, .	1.1	11
44	Far-infrared signature of the superconducting gap in intercalated graphiteCaC6. Physical Review B, 2008, 78, .	1.1	13
45	Magneto-optic far-infrared study ofSr14Cu24O41: Triplet excitations in chains. Physical Review B, 2007, 76, .	1.1	5
46	Signatures of bilayer splitting in thec-axis optical conductivity of double layer cuprates. Physical Review B, 2004, 69, .	1.1	18
47	Low-energy excitations and dynamic Dzyaloshinskii-Moriya interaction inÎ±â€²â^'NaV2O5studied by far-infrared spectroscopy. Physical Review B, 2004, 69, .	1.1	25
48	Far-infrared spectroscopy of spin excitations and Dzyaloshinskii-Moriya interactions in the Shastry-Sutherland compoundSrCu2(BO3)2. Physical Review B, 2004, 70, .	1.1	23
49	Suppression of the Charge-Density-Wave State inSr14Cu24O41by Calcium Doping. Physical Review Letters, 2003, 90, 257002.	2.9	62
50	Far-infrared optical properties of the carbide superconductorY2C2I2. Physical Review B, 2002, 66, .	1.1	1
51	Infrared and optical properties of pure and cobalt-dopedLuNi2B2C. Physical Review B, 2002, 65, .	1.1	4
52	Charge-density wave formation inSr14â^'xCaxCu24O41. Physical Review B, 2002, 66, .	1.1	43
53	Incoherent interplane conductivity ofÎºâ^'(BEDTâ^'TTF)2Cu[N(CN)2]Br. Physical Review B, 2001, 64, .	1.1	34
54	Far-infrared study of the two-dimensional dimer spin systemSrCu2(BO3)2. Physical Review B, 2000, 61, 14342-14345.	1.1	38

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55	Far-infrared vibrational mode inCu1â^'xMxGe1â^'ySiyO3â€,(M=Zn,Cd,Ni). Physical Review B, 1999, 59, 1157-1161.	1.1	6
56	Enhancement of surface NMR by laser-polarized noble gases. Physical Review B, 1997, 55, 11604-11610.	1.1	66
57	Enhancement of Solution NMR and MRI with Laser-Polarized Xenon. Science, 1996, 271, 1848-1851.	6.0	319
58	Temperature and frequency effects in tooth enamel electron spin resonance dosimetry. Applied Radiation and Isotopes, 1994, 45, 1061-1064.	0.7	2
59	Luminescence and ESR detected hydrogen related electron traps in yellow-colored CaO crystals. Radiation Effects and Defects in Solids, 1991, 119-121, 855-860.	0.4	1
60	Spin lattice relaxation of F⁺centers in neutron irradiated cao crystals. Radiation Effects and Defects in Solids, 1991, 119-121, 639-644.	0.4	1
61	Comment on â€˜â€˜Mechanism of nuclear spin-lattice relaxation in insulators at very low temperaturesâ€™â€™. Physical Review B, 1989, 40, 4201-4202.	1.1	3