Daniel I Khomskii

List of Publications by Year
in descending order

63	6,418	117625	128289
papers	citations	34 h-index	60 g-index

65	65	65	6357
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coexisting Z-type charge and bond order in metallic NaRu2O4. Communications Materials, 2022, 3, .	6.9	0
2	Magneto-optical study of metamagnetic transitions in the antiferromagnetic phase of Î±-RuCl3. Npj Quantum Materials, 2022, 7, .	5.2	7
3	Reviewâ€"Orbital Physics: Glorious Past, Bright Future. ECS Journal of Solid State Science and Technology, 2022, 11, 054004.	1.8	9
4	Interplay of the Jahn-Teller effect and spin-orbit coupling: The case of trigonal vibrations. Physical Review B, 2022, 105, .	3.2	8
5	Orbital Effects in Solids: Basics, Recent Progress, and Opportunities. Chemical Reviews, 2021, 121, 2992-3030.	47.7	98
6	Effects of Mn-substitution on the valence bond solid in Li2RuO3. Physical Review B, 2021, 103, .	3.2	2
7	Single Crystal Growth and Physical Properties of Pyroxene CoGeO3. Crystals, 2021, 11, 378.	2.2	1
8	Multiferroics and Beyond: Electric Properties of Different Magnetic Textures. Journal of Experimental and Theoretical Physics, 2021, 132, 482-492.	0.9	1
9	Electric activity at magnetic moment fragmentation in spin ice. Nature Communications, 2021, 12, 3047.	12.8	2
10	Na 9 Bi 5 Os 3 O 24 : A Diamagnetic Oxide Featuring a Pronouncedly Jahnâ€"Tellerâ€Compressed Octahedral Coordination of Osmium(VI). Angewandte Chemie - International Edition, 2021, 60, 16500-16505.	13.8	6
11	Na₉Bi₅Os₃O₂₄: A Diamagnetic Oxide Featuring a Pronouncedly Jahnâ€"Tellerâ€Compressed Octahedral Coordination of Osmium(VI). Angewandte Chemie, 2021, 133, 16636-16641.	2.0	0
12	Spin-orbital liquid in Ba3CuSb2O9 stabilized by oxygen holes. Physical Review Materials, 2021, 5, .	2.4	2
13	Comment on â€œSpin-Lattice Coupling and the Emergence of the Trimerized Phase in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mo>=</mml:mo><mml:mn>1</mml:mn></mml:mrow></mml:math> Kagome Antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Na</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>	7.8	7
14	Emergent 1/3 magnetization plateaus in pyroxene <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>CoGeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> Physical Review Research, 2021, 3, .	3.6	4
15	Field-tunable toroidal moment in a chiral-lattice magnet. Nature Communications, 2021, 12, 5339.	12.8	13
16	Charge disproportionation and nano phase separation in $$extit{R}mathrm{SrNiO}_{4}$$. Scientific Reports, 2020, 10, 18012.	3.3	2
17	Jahn-Teller Effect and Spin-Orbit Coupling: Friends or Foes?. Physical Review X, 2020, 10, .	8.9	29
18	Three-site transition-metal clusters: Going from localized electrons to molecular orbitals. Physical Review B, 2020, 102, .	3.2	6

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19	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>VI</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>: A two-dimensional Ising ferromagnet. Physical Review B, 2020, 101, .	3.2	60
20	Coupled dynamics of long-range and cluster-internal spin order in the cluster Mott insulator Cu2OSeO3. Physical Review B, 2019, 100, .	3.2	2
21	Spin-orbit entangled <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>j</mml:mi><mml:mo>=</mml:mo><mml:mfrac><mml:mn moments in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ba</mml:mi><mml:mn>2</mml:mn></mml:math>: A frustrated fcc quantum magnet. Physical Review B, 2019, 100, .	3.2	40
22	Ordering of Fe and Zn Ions and the Magnetic Properties of FeZnMo3O8. JETP Letters, 2019, 109, 786-789.	1.4	10
23	Spin-orbit coupling and crystal-field distortions for a low-spin <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>3</mml:mn><mml:msup><mml:mi>d</mml:mi><mml:mn state in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">BaCoO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2019, 100, .	3.2	49
24	Resonant inelastic x-ray incarnation of Youngâ€™s double-slit experiment. Science Advances, 2019, 5, eaav4020.	10.3	29
25	Antiferromagnetic correlations in the metallic strongly correlated transition metal oxide LaNiO3. Nature Communications, 2018, 9, 43.	12.8	110
26	Cluster Magnetism of Ba4NbMn3O12: Localized Electrons or Molecular Orbitals?. JETP Letters, 2018, 108, 686-690.	1.4	12
27	Unusual layered order and charge disproportionation in the double-perovskite compound Ca2FeMnO6. Physical Review B, 2018, 98, .	3.2	4
28	Unexpected 3+ valence of iron in FeO2, a geologically important material lying â€œin betweenâ€•oxides and peroxides. Scientific Reports, 2017, 7, 13005.	3.3	47
29	Orbital physics in transition metal compounds: new trends. Physics-Uspekhi, 2017, 60, 1121-1146.	2.2	124
30	Covalent bonds against magnetism in transition metal compounds. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10491-10496.	7.1	88
31	Role of local geometry in the spin and orbital structure of transition metal compounds. Journal of Experimental and Theoretical Physics, 2016, 122, 484-498.	0.9	45
32	Spin-orbital interaction for face-sharing octahedra: Realization of a highly symmetric SU(4) model. Physical Review B, 2015, 91, .	3.2	55
33	Jahn-Teller versus quantum effects in the spin-orbital material<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LuVO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2015, 91, .	3.2	12
34	Coexisting charge and magnetic orders in the dimer-chain iridateBa5AlIr2O11. Physical Review B, 2015, 91, .	3.2	28
35	Rare case of magnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mi mathvariant="normal">Ag</mml:mi><mml:mrow><mml:mn>3</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:math> Double perovskite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi	3.2	7
36	Valence bond liquid phase in the honeycomb lattice material<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">Li</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Ru</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 89, .	3.2	92

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37	Orbital-dependent singlet dimers and orbital-selective Peierls transitions in transition-metal compounds. Physical Review B, 2014, 89, .	3.2	57
38	Magnetic monopoles and unusual dynamics of magnetoelectrics. Nature Communications, 2014, 5, 4793.	12.8	16
39	Electric dipoles on magnetic monopoles in spin ice. Nature Communications, 2012, 3, 904.	12.8	73
40	Peierls Mechanism of the Metal-Insulator Transition in Ferromagnetic Hollandite<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="normal">K</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>Cr</mml:mi><mml:mn>8</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>16</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2011, 107, 266402.	7.8	53
41	Spin chirality and nontrivial charge dynamics in frustrated Mott insulators: spontaneous currents and charge redistribution. Journal of Physics Condensed Matter, 2010, 22, 164209.	1.8	39
42	Electronic orbital currents and polarization in Mott insulators. Physical Review B, 2008, 78, .	3.2	160
43	Classical Dimers and Dimerized Superstructure in an Orbitally Degenerate Honeycomb Antiferromagnet. Physical Review Letters, 2008, 100, 147203.	7.8	44
44	Electronic structure and magnetic properties of pyroxenes<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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55	Phase separation in systems with charge ordering. Journal of Experimental and Theoretical Physics, 2001, 93, 415-423.	0.9	38
56	Orbital ordering of complex orbitals in doped Mott insulators. Physical Review B, 2001, 63, .	3.2	62
57	Exchange Interactions and Magnetic Properties of the Layered VanadatesCaV2O5,MgV2O5,CaV3O7, andCaV4O9. Physical Review Letters, 1999, 83, 1387-1390.	7.8	94
58	Orbital Occupation, Local Spin, and Exchange Interactions inV2O3. Physical Review Letters, 1999, 83, 4136-4139.	7.8	122
59	Temperature-induced magnetization reversal in a YVO3 single crystal. Nature, 1998, 396, 441-444.	27.8	276
60	CrO2: A Self-Doped Double Exchange Ferromagnet. Physical Review Letters, 1998, 80, 4305-4308.	7.8	425
61	Orbital Ordering in a Two-Dimensional Triangular Lattice. Physical Review Letters, 1997, 78, 1323-1326.	7.8	190
62	The Jahn-Teller effect and magnetism: transition metal compounds. Uspekhi Fizicheskikh Nauk, 1982, 25, 231-256.	0.3	1,072
63	Classifying multiferroics: Mechanisms and effects. Physics Magazine, 0, 2, .	0.1	1,248