Hirofumi Akamatsu

List of Publications by Year
in descending order

72	1,694	257450 24	302126 39
papers	citations	h-index	g-index
77	77	77	2255
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A labile hydride strategy for the synthesis of heavily nitridized BaTiO3. Nature Chemistry, 2015, 7, 1017-1023.	13.6	118
2	Antiferromagnetic superexchange via<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>3</mml:mn><mml:mi>d</mml:mi></mml:mrow></mml:math>states of titanium in EuTiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>as seen from hybrid Hartree-Fock density functional calculations. Physical Review B, 2011, 83, .	3.2	104
3	Ferroelectric Sr₃Zr₂O₇: Competition between Hybrid Improper Ferroelectric and Antiferroelectric Mechanisms. Advanced Functional Materials, 2018, 28, 1801856.	14.9	89
4	Structural characterization of hierarchically porous alumina aerogel and xerogel monoliths. Journal of Colloid and Interface Science, 2009, 338, 506-513.	9.4	87
5	Room-Temperature Polar Ferromagnet ScFeO₃ Transformed from a High-Pressure Orthorhombic Perovskite Phase. Journal of the American Chemical Society, 2014, 136, 15291-15299.	13.7	78
6	Hybrid Improper Ferroelectricity in (Sr,Ca)₃Sn₂O₇ and Beyond: Universal Relationship between Ferroelectric Transition Temperature and Tolerance Factor in <i>n</i> = 2 Ruddlesdenâ€"Popper Phases. Journal of the American Chemical Society, 2018, 140, 15690-15700.	13.7	74
7	Artificial two-dimensional polar metal at room temperature. Nature Communications, 2018, 9, 1547.	12.8	61
8	Inversion Symmetry Breaking by Oxygen Octahedral Rotations in the Ruddlesden-Popper<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Na</mml:mi><mml:mi>R</mml:mi><mml:msub><mml:mrow><mml:mi>TiO</mml:mi></mml:mr Physical Review Letters, 2014, 112, 187602.	7.8	60
9	Crystal and Electronic Structure and Magnetic Properties of Divalent Europium Perovskite Oxides Eu<i>M</i>O₃ (<i>M</i> = Ti, Zr, and Hf): Experimental and First-Principles Approaches. Inorganic Chemistry, 2012, 51, 4560-4567.	4.0	54
10	Mn₂FeWO₆: A New Ni₃TeO₆â€Type Polar and Magnetic Oxide. Advanced Materials, 2015, 27, 2177-2181.	21.0	53
11	Insights into Sodium Ion Transfer at the Na/NASICON Interface Improved by Uniaxial Compression. ACS Applied Energy Materials, 2019, 2, 2913-2920.	5.1	51
12	LiNbO₃-Type InFeO₃: Room-Temperature Polar Magnet without Second-Order Jahnâ€"Teller Active Ions. Chemistry of Materials, 2016, 28, 6644-6655.	6.7	43
13	Strong Spinâ€Lattice Coupling Through Oxygen Octahedral Rotation in Divalent Europium Perovskites. Advanced Functional Materials, 2013, 23, 1864-1872.	14.9	41
14	Light-Activated Gigahertz Ferroelectric Domain Dynamics. Physical Review Letters, 2018, 120, 096101.	7.8	39
15	Antiferromagnetism of perovskite EuZrO3. Journal of Solid State Chemistry, 2010, 183, 168-172.	2.9	38
16	Magnetic and magneto-optical quenching in (Mn^2+, Sr^2+) metaphosphate glasses. Optical Materials Express, 2013, 3, 184.	3.0	38
17	Magneto-optical properties of transparent divalent iron phosphate glasses. Applied Physics Letters, 2008, 92, .	3.3	36
18	Emergent Noncentrosymmetry and Piezoelectricity Driven by Oxygen Octahedral Rotations in <i>n</i> = 2 Dionâ€"Jacobson Phase Layer Perovskites. Advanced Functional Materials, 2016, 26, 1930-1937.	14.9	33

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19	Improper Inversion Symmetry Breaking and Piezoelectricity through Oxygen Octahedral Rotations in Layered Perovskite Family, Li<i>R</i>TiO₄ (<i>R</i> = Rare Earths). Advanced Electronic Materials, 2016, 2, 1500196.	5.1	28
20	Carrier-Induced Band-Gap Variation and Point Defects in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Zn</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></m mathvariant="normal">N</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: from First Principles. Physical Review Applied, 2017, 8, .	3.8	28
21	Competing Polar and Antipolar Structures in the Ruddlesdenâ€"Popper Layered Perovskite Li₂SrNb₂O₇. Chemistry of Materials, 2019, 31, 4418-4425.	6.7	28
22	Spin dynamics inFe2O3â^'TeO2glass: Experimental evidence for an amorphous oxide spin glass. Physical Review B, 2006, 74, .	3.2	26
23	Magnetic properties of mixed-valence iron phosphate glasses. Physical Review B, 2009, 80, .	3.2	25
24	Magnetic properties of oxide glasses containing iron and rare-earth ions. Physical Review B, 2011, 84, .	3.2	25
25	Magnetic phase transitions in Fe₂O₃â€"Bi₂O₃â€"B₂O₃glasses. Journal of Physics Condensed Matter, 2008, 20, 235216.	1.8	22
26	PbMn(IV)TeO₆: A New Noncentrosymmetric Layered Honeycomb Magnetic Oxide. Inorganic Chemistry, 2016, 55, 1333-1338.	4.0	22
27	Competing Structural Instabilities in the Ruddlesdenâ€"Popper Derivatives HRTiO₄ (R = Rare) Tj ETQq1 1 0.784314 rgBT /C Centrosymmetricity. Chemistry of Materials, 2017, 29, 656-665.	6.7	22
28	Magneto-optical properties of Eu2+-containing aluminoborosilicate glasses with ferromagnetic interactions. Optical Materials, 2013, 35, 1997-2000.	3.6	21
29	Lowâ€Temperature Cationic Rearrangement in a Bulk Metal Oxide. Angewandte Chemie - International Edition, 2016, 55, 9862-9867.	13.8	20
30	Ferromagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>Eu</mml:mtext></mml:mrow><mml:mrow><mml:mn>2</mml:mn oxide glasses with reentrant spin glass behavior. Physical Review B, 2010, 81, .	3.2	19
31	Magnetic properties of disordered oxides with iron and manganese ions. Journal of Non-Crystalline Solids, 2008, 354, 1347-1352.	3.1	17
32	Ferromagnetism induced by lattice volume expansion and amorphization in EuTiO₃ thin films. Journal of Materials Research, 2013, 28, 1031-1041.	2.6	17
33	Discovering minimum energy pathways via distortion symmetry groups. Physical Review B, 2018, 98, .	3.2	14
34	Reversible Electrochemical Insertion/Extraction of Magnesium Ion into/from Robust NASICON-Type Crystal Lattice in a Mg(BF₄)₂-Based Electrolyte. ACS Applied Energy Materials, 2020, 3, 6824-6833.	5.1	14
35	Polar metallic behavior of strained antiperovskites ACNi3(A=Mg,Zn,and Cd) from first principles. Physical Review Materials, 2018, 2, .	2.4	14
36	Preparation and magnetic properties of amorphous EuTiO3 thin films. Journal of Non-Crystalline Solids, 2010, 356, 2389-2392.	3.1	13

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37	Spin dynamics in oxide glass of Fe2O3â€"Bi2O3â€"B2O3 system. Journal of Magnetism and Magnetic Materials, 2007, 310, 1506-1507.	2.3	12
38	Impact of amorphization on the magnetic properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>EuO-TiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mm Physical Review B, 2010, 82, .	3.2	12
39	Structural phase transitions in EuNbO3 perovskite. Journal of Solid State Chemistry, 2016, 239, 192-199.	2.9	12
40	Sn-Based Perovskite with a Wide Visible-Light Absorption Band Assisted by Hydride Doping. Chemistry of Materials, 2021, 33, 3631-3638.	6.7	12
41	Ferroelectricity of Dionâ€"Jacobson layered perovskites CsNdNb₂O₇ and RbNdNb₂O₇. Japanese Journal of Applied Physics, 2020, 59, SPPC04.	1.5	12
42	Emergent room temperature polar phase in CaTiO3 nanoparticles and single crystals. APL Materials, 2019, 7, .	5.1	10
43	Strain-engineered Peierls instability in layered perovskite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>La</mml:mi><mml:mn>3</mml:mn></mml:m mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math> from first principles. Physical Review Materials, 2018, 2, .	2.4	10
44	AgCu3V4O12: a Novel Perovskite Containing Mixed-Valence Silver ions. Inorganic Chemistry, 2013, 52, 13824-13826.	4.0	9
45	Controlling Defects to Achieve Reproducibly High Ionic Conductivity in Na₃SbS₄ Solid Electrolytes. Chemistry of Materials, 2022, 34, 5634-5643.	6.7	9
46	Ferromagnetic properties with reentrant spinâ€glass behavior in amorphous EuZrO₃ thin film. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 3051-3054.	0.8	8
47	Sodium titanium oxide bronze nanoparticles synthesized <i>via</i> concurrent reduction and Na⁺-doping into TiO₂(B). Nanoscale, 2019, 11, 1442-1450.	5.6	8
48	Variation of meso- and macroporous morphologies in resorcinolâ€"formaldehyde (RF) gels tailored via a solâ€"gel process combined with soft-templating and phase separation. Journal of Sol-Gel Science and Technology, 2020, 95, 801-812.	2.4	8
49	Antiferroelectricity and robust dielectric response owing to competing polar and antipolar instabilities in tetragonal tungsten bronze <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">K</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mi>R</mml:mi><mml:mi>N mathvariant="normal">O</mml:mi><mml:mn>15</mml:mn></mml:msub></mml:math> (<i>R</i> :) Tj ETQq1 1 0.784314 rgBT /Over	2.4	8
50	Local Structure of Amorphous <scp><scp>EuOâ€"TiO₂</scp></scp> Thin Films Probed by <scp>X</scp>â€Ray Absorption Fine Structure. Journal of the American Ceramic Society, 2012, 95, 716-720.	3.8	7
51	Ferromagnetic amorphous oxides in the EuO-TiO<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>system studied by the Faraday effect in the visible region and the x-ray magnetic circular dichroism at the Eu<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>M</mml:mi><mml:mrow><mml:mn>4</mml:mn><mml:mo>,</mml:mo><mml:mn>5</mml:mn>	3.2	7
52	Perovskite-Type InCoO3 with Low-Spin Co3+: Effect of Inâ€"O Covalency on Structural Stabilization in Comparison with Rare-Earth Series. Inorganic Chemistry, 2017, 56, 11113-11122.	4.0	7
53	Comprehensive magnetic phase diagrams of the polar metal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi		

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55	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>A</mml:mi></mml:math> -site cation size effect on oxygen octahedral rotations in acentric Ruddlesden-Popper alkali rare-earth titanates. Physical Review Materials, 2019, 3, .	2.4	7
56	Electronic Origin of Non-Zone-Center Phonon Condensation: Octahedral Rotation as a Case Study. Physical Review Letters, 2021, 127, 215701.	7.8	7
57	Magnetic Properties of Amorphous Fe₂O₃-R₂O₃ (R=La, Gd and Tb) Thin Films Fabricated by Sputtering Method. Advanced Materials Research, 2008, 39-40, 207-212.	0.3	6
58	Structural and Magnetic Properties of $hbox{CdFe}_{2}hbox{O}_{4}$ Thin Films Fabricated via Sputtering Method. IEEE Transactions on Magnetics, 2008, 44, 2796-2799.	2.1	6
59	Environmental impact of amino acids on the release of selenate immobilized in hydrotalcite: Integrated interpretation of experimental and density-functional theory study. Chemosphere, 2021, 274, 129927.	8.2	5
60	Interplay between Oxygen Octahedral Rotation and Deformation in the Acentric <i>AR</i>TiO₄ Series toward Negative Thermal Expansion. Chemistry of Materials, 2022, 34, 6492-6504.	6.7	5
61	Environmental impact of amino acids on selenate-bearing hydrocalumite: Experimental and DFT studies. Environmental Pollution, 2021, 288, 117687.	7.5	4
62	Lowâ€Temperature Cationic Rearrangement in a Bulk Metal Oxide. Angewandte Chemie, 2016, 128, 10016-10021.	2.0	3
63	Structural dynamics of LaVO3 on the nanosecond time scale. Structural Dynamics, 2019, 6, 014502.	2.3	3
64	Effect of Substrate Strain and Interface on Magnetic Properties of EuTiO₃ Thin Film. Materials Research Society Symposia Proceedings, 2012, 1454, 149-159.	0.1	2
65	Random anion distribution in MSxSe2âˆ’x (M = Mo, W) crystals and nanosheets. RSC Advances, 2018, 8, 9871-9878.	3.6	2
66	Synthesis of Hydride-Doped Perovskite Stannate with Visible Light Absorption Capability. Inorganic Chemistry, 2022, , .	4.0	2
67	Glass-ceramic route to NASICON-type Na Ti2(PO4)3 electrodes for Na-ion batteries. Ceramics International, 2022, 48, 24758-24764.	4.8	2
68	Superspin glass behavior of amorphous FeOâ€“SiO2thin films. Japanese Journal of Applied Physics, 2014, 53, 05FB11.	1.5	1
69	Mechanical and thermal properties of porous polyimide monoliths crosslinked with aromatic and aliphatic triamines. Journal of Sol-Gel Science and Technology, 0, , .	2.4	1
70	Frontispiz: Low-Temperature Cationic Rearrangement in a Bulk Metal Oxide. Angewandte Chemie, 2016, 128, .	2.0	0
71	Frontispiece: Low-Temperature Cationic Rearrangement in a Bulk Metal Oxide. Angewandte Chemie - International Edition, 2016, 55, .	13.8	0
72	Influence of Amino Acids on the Mobility of Iodide in Hydrocalumite. Minerals (Basel, Switzerland), 2021, 11, 836.	2.0	0