

# Yoji Kobayashi

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

88 papers	3,594 citations	34 h-index	58 g-index
97 ext. papers	4,016 ext. citations	8.1 avg, IF	5.08 L-index

#	Paper	IF	Citations
88	Dehydration of Electrochemically Protonated Oxide: SrCoO with Square Spin Tubes. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 17517-17525	16.4	4
87	Design of a structure model set for inorganic compounds based on ping-pong balls linked with snap buttons. <i>Chemistry Teacher International</i> , <b>2021</b> , 3, 295-301	1	1
86	Vanadium Hydride as an Ammonia Synthesis Catalyst. <i>ChemCatChem</i> , <b>2021</b> , 13, 191-195	5.2	8
85	Electronic Origin of Catalytic Activity of TiH <sub>2</sub> for Ammonia Synthesis. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 3948-3960	3.8	7
84	Pressure-Induced Collapse Transition in BaTiPnO (Pn = As, Sb) with an Unusual Pn-Pn Bond Elongation. <i>Inorganic Chemistry</i> , <b>2021</b> , 60, 2228-2233	5.1	3
83	Exploring Structures and Properties through Anion Chemistry. <i>Bulletin of the Chemical Society of Japan</i> , <b>2019</b> , 92, 1349-1357	5.1	21
82	Property Engineering in Perovskites via Modification of Anion Chemistry. <i>Annual Review of Materials Research</i> , <b>2018</b> , 48, 303-326	12.8	31
81	High Pressure Synthesis of Hydride-fluoride Pyrochlore NaCaMg <sub>2</sub> F <sub>7</sub> ·Hx. <i>Chemistry Letters</i> , <b>2018</b> , 47, 829-832	1.7	
80	Site Selectivity of Hydride in Early-Transition-Metal Ruddlesden-Popper Oxyhydrides. <i>Inorganic Chemistry</i> , <b>2018</b> , 57, 11058-11067	5.1	5
79	Chemical Pressure-Induced Anion Order-Disorder Transition in LnHO Enabled by Hydride Size Flexibility. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 11170-11173	16.4	43
78	Metal-Dependent Support Effects of Oxyhydride-Supported Ru, Fe, Co Catalysts for Ammonia Synthesis. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801772	21.8	65
77	Hydride-Enhanced CO <sub>2</sub> Methanation: Water-Stable BaTiO <sub>2.4</sub> H <sub>0.6</sub> as a New Support. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800800	21.8	15
76	Pressure-Stabilized Cubic Perovskite Oxyhydride BaScOH. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 4840-4845	5.1	26
75	Promoted Hydride/Oxide Exchange in SrTiO by Introduction of Anion Vacancy via Aliovalent Cation Substitution. <i>Inorganic Chemistry</i> , <b>2017</b> , 56, 13035-13040	5.1	13
74	Illustrating the Basic Functioning of Mass Analyzers in Mass Spectrometers with Ball-Rolling Mechanisms. <i>Journal of Chemical Education</i> , <b>2017</b> , 94, 1502-1506	2.4	2
73	Suppression of H <sub>2</sub> O <sub>2</sub> Exchange by incorporated nitride anions in the perovskite lattice. <i>Journal of Solid State Chemistry</i> , <b>2017</b> , 256, 33-37	3.3	5
72	On Hydride Diffusion in Transition Metal Perovskite Oxyhydrides Investigated via Deuterium Exchange. <i>Chemistry of Materials</i> , <b>2017</b> , 29, 8187-8194	9.6	20

71	Titanium-Based Hydrides as Heterogeneous Catalysts for Ammonia Synthesis. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 18240-18246	16.4	122
70	Cubic lead perovskite PbMoO <sub>3</sub> with anomalous metallic behavior. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	10
69	New chemistry of transition metal oxyhydrides. <i>Science and Technology of Advanced Materials</i> , <b>2017</b> , 18, 905-918	7.1	24
68	ZnTaON: Stabilized High-Temperature LiNbO <sub>3</sub> -type Structure. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 15950-15955	16.4	22
67	High-Pressure Synthesis of Manganese Oxyhydride with Partial Anion Order. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 9667-70	16.4	23
66	Impact of Lanthanoid Substitution on the Structural and Physical Properties of an Infinite-Layer Iron Oxide. <i>Inorganic Chemistry</i> , <b>2016</b> , 55, 12093-12099	5.1	8
65	Topochemical Nitridation with Anion Vacancy-Assisted N(3-)/O(2-) Exchange. <i>Journal of the American Chemical Society</i> , <b>2016</b> , 138, 3211-7	16.4	37
64	Selective and low temperature transition metal intercalation in layered tellurides. <i>Nature Communications</i> , <b>2016</b> , 7, 13809	17.4	7
63	Exploring the Gas Chemistry of Old Submarine Technologies Using Plastic Bottles as Reaction Vessels and Models. <i>Journal of Chemical Education</i> , <b>2016</b> , 93, 1411-1414	2.4	0
62	High-Pressure Synthesis of Manganese Oxyhydride with Partial Anion Order. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 9819-9822	3.6	10
61	Remarkable Oxygen Intake/Release of BaYMn <sub>2</sub> O <sub>5</sub> Viewed from High-Temperature Crystal Structure. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 2356-2363	3.8	16
60	A Nearly Ideal One-Dimensional S = 5/2 Antiferromagnet Fe <sub>3</sub> (4,4'-bpy) (4,4'-bpy = 4,4'-bipyridyl) with Strong Intrachain Interactions. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 9804-7	16.4	28
59	High-Level Doping of Nitrogen, Phosphorus, and Sulfur into Activated Carbon Monoliths and Their Electrochemical Capacitances. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 4703-4712	9.6	174
58	Crystal Structural Changes and Charge Compensation Mechanism during Two Lithium Extraction/Insertion between Li <sub>2</sub> FeSiO <sub>4</sub> and FeSiO <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 10206-10211	13.8	43
57	A labile hydride strategy for the synthesis of heavily nitridized BaTiO <sub>3</sub> . <i>Nature Chemistry</i> , <b>2015</b> , 7, 1017-23	27.6	87
56	Electrical Properties of Epitaxial Thin Films of Oxyhydrides ATiO <sub>3-x</sub> H <sub>x</sub> (A = Ba and Sr). <i>Chemistry of Materials</i> , <b>2015</b> , 27, 6354-6359	9.6	37
55	Impact of Electrolyte on Pseudocapacitance and Stability of Porous Titanium Nitride (TiN) Monolithic Electrode. <i>Journal of the Electrochemical Society</i> , <b>2015</b> , 162, A77-A85	3.9	42
54	MnTaO <sub>2</sub> N: polar LiNbO <sub>3</sub> -type oxynitride with a helical spin order. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 516-21	16.4	22

53	MnTaO <sub>2</sub> N: Polar LiNbO <sub>3</sub> -type Oxynitride with a Helical Spin Order. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 526-531	5.1	9
52	Effect of calcination conditions on porous reduced titanium oxides and oxynitrides via a preceramic polymer route. <i>Inorganic Chemistry</i> , <b>2015</b> , 54, 2802-8	5.1	10
51	Hydride in BaTiO <sub>2.5</sub> H <sub>0.5</sub> : A Labile Ligand in Solid State Chemistry. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 15315-21	16.4	54
50	An antiferro-to-ferromagnetic transition in EuTiO <sub>3-x</sub> H <sub>x</sub> induced by hydride substitution. <i>Inorganic Chemistry</i> , <b>2015</b> , 54, 1501-7	5.1	43
49	High energy density rechargeable magnesium battery using earth-abundant and non-toxic elements. <i>Scientific Reports</i> , <b>2014</b> , 4, 5622	4.9	230
48	Charge Disproportionation and Magnetoresistivity in a Double Perovskite with Alternate Fe <sup>4+</sup> (d <sup>4</sup> ) and Mn <sup>4+</sup> (d <sup>3</sup> ) Layers. <i>European Journal of Inorganic Chemistry</i> , <b>2014</b> , 2014, 2576-2581	2.3	7
47	Illustrating Catalysis with Interlocking Building Blocks: A Ruthenium Carbene Complex for Olefin Metathesis Reactions. <i>Journal of Chemical Education</i> , <b>2014</b> , 91, 255-258	2.4	7
46	LaPd <sub>2</sub> Sb <sub>2</sub> : A pnictide superconductor with CaBe <sub>2</sub> Ge <sub>2</sub> type structure. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 583, 151-154	5.7	20
45	Substrate-induced anion rearrangement in epitaxial thin films of LaSrCoO <sub>4-x</sub> H <sub>x</sub> . <i>CrystEngComm</i> , <b>2014</b> , 16, 9669-9674	3.3	17
44	CaH <sub>2</sub> -assisted low temperature synthesis of metallic magnetic nanoparticle-loaded multiwalled carbon nanotubes. <i>Chemical Communications</i> , <b>2014</b> , 50, 6866-8	5.8	8
43	Superconductivity in the Hypervalent Compound Ba <sub>2</sub> Bi(Sb <sub>1-x</sub> Bi <sub>x</sub> ) <sub>2</sub> with a Square-Honeycomb Lattice. <i>Journal of the Physical Society of Japan</i> , <b>2014</b> , 83, 073705	1.5	6
42	Relationship between Phase Transition Involving Cationic Exchange and Charge Discharge Rate in Li <sub>2</sub> FeSiO <sub>4</sub> . <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1380-1384	9.6	44
41	MgFePO <sub>4</sub> F as a feasible cathode material for magnesium batteries. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 11578-11582	13	59
40	Local structural change in Li <sub>2</sub> FeSiO <sub>4</sub> polyanion cathode material during initial cycling. <i>Solid State Ionics</i> , <b>2014</b> , 262, 110-114	3.3	9
39	Direct synthesis of chromium perovskite oxyhydride with a high magnetic-transition temperature. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 10377-80	16.4	72
38	Direct Synthesis of Chromium Perovskite Oxyhydride with a High Magnetic-Transition Temperature. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 10545-10548	3.6	17
37	Superconductivity in LaPd <sub>2</sub> As <sub>2</sub> with a collapsed 122 structure. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 613, 370-374	5.7	10
36	Hierarchically Porous Monoliths Based on N-Doped Reduced Titanium Oxides and Their Electric and Electrochemical Properties. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 3504-3512	9.6	45

35	Synthesis and Physical Properties of the New Oxybismuthides BaTi <sub>2</sub> Bi <sub>2</sub> O and (SrF) <sub>2</sub> Ti <sub>2</sub> Bi <sub>2</sub> O with ad1Square Net. <i>Journal of the Physical Society of Japan</i> , <b>2013</b> , 82, 013703	1.5	36
34	Gas phase contributions to topochemical hydride reduction reactions. <i>Journal of Solid State Chemistry</i> , <b>2013</b> , 207, 190-193	3.3	15
33	Hierarchically porous monoliths of oxygen-deficient anatase TiO <sub>2-x</sub> with electronic conductivity. <i>RSC Advances</i> , <b>2013</b> , 3, 7205	3.7	9
32	Illustrating Catalysis with Interlocking Building Blocks: Correlation between Structure of a Metallocene Catalyst and the Stereoregularity of Polypropylene. <i>Journal of Chemical Education</i> , <b>2013</b> , 90, 620-622	2.4	8
31	Sr <sub>2</sub> FeO <sub>3</sub> with stacked infinite chains of FeO <sub>4</sub> square planes. <i>Inorganic Chemistry</i> , <b>2013</b> , 52, 6096-102	5.1	33
30	Two Superconducting Phases in the Isovalent Solid Solutions BaTi <sub>2</sub> Pn <sub>2</sub> O (Pn= As, Sb, and Bi). <i>Journal of the Physical Society of Japan</i> , <b>2013</b> , 82, 033705	1.5	36
29	Low temperature solventless synthesis and characterization of Ni and Fe magnetic nanoparticles. <i>Chemical Communications</i> , <b>2012</b> , 48, 8237-9	5.8	16
28	Epitaxial thin films of ATiO(3-x)H(x) (A = Ba, Sr, Ca) with metallic conductivity. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 8782-5	16.4	79
27	An oxyhydride of BaTiO <sub>3</sub> exhibiting hydride exchange and electronic conductivity. <i>Nature Materials</i> , <b>2012</b> , 11, 507-11	27	205
26	Selective preparation of macroporous monoliths of conductive titanium oxides Ti(n)O(2n-1) (n = 2, 3, 4, 6). <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 10894-8	16.4	88
25	Oxyhydrides of (Ca,Sr,Ba)TiO <sub>3</sub> perovskite solid solutions. <i>Inorganic Chemistry</i> , <b>2012</b> , 51, 11371-6	5.1	65
24	Simultaneous Quantification of Hydride Ions and Electrons Incorporated in 12CaO $\cdot$ 7Al <sub>2</sub> O <sub>3</sub> Cages by Deuterium-Labeled Volumetric Analysis. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 8747-8752	3.8	6
23	(Sr(1-x)Ba(x))FeO <sub>2</sub> (0.4 $\leq$ x $\leq$ 1): a new oxygen-deficient perovskite structure. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 11444-54	16.4	28
22	Electrochemical characterization of single-layer MnO <sub>2</sub> nanosheets as a high-capacitance pseudocapacitor electrode. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 14691		46
21	Superconductivity in BaTi <sub>2</sub> Sb <sub>2</sub> O with ad1Square Lattice. <i>Journal of the Physical Society of Japan</i> , <b>2012</b> , 81, 103706	1.5	75
20	B1-to-B2 structural transitions in rock salt intergrowth structures. <i>Inorganic Chemistry</i> , <b>2011</b> , 50, 11787-94	5.1	12
19	Fe-site substitution effect on the structural and magnetic properties in SrFeO <sub>2</sub> . <i>Inorganic Chemistry</i> , <b>2011</b> , 50, 3988-95	5.1	42
18	Pressure-induced structural, magnetic, and transport transitions in the two-legged ladder Sr <sub>3</sub> Fe <sub>2</sub> O <sub>5</sub> . <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 6036-43	16.4	27

17	Highly Reduced Anatase TiO <sub>2</sub> -Thin Films Obtained via Low-Temperature Reduction. <i>Applied Physics Express</i> , <b>2011</b> , 4, 035801	2.4	16
16	Synthesis and thermal stability of the solid solution AFeO <sub>2</sub> (A = Ba, Sr, Ca). <i>Inorganic Chemistry</i> , <b>2010</b> , 49, 5957-62	5.1	23
15	Conductivity, Doping, and Redox Chemistry of a Microporous Dithiolene-Based Metal-Organic Framework. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 4120-4122	9.6	403
14	Ion-exchangeable, electronically conducting layered perovskite oxyfluorides. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 9849-55	16.4	92
13	Direct deposition of trivalent rhodium hydroxide nanoparticles onto a semiconducting layered calcium niobate for photocatalytic hydrogen evolution. <i>Nano Letters</i> , <b>2008</b> , 8, 794-9	11.5	120
12	Soft Chemical Conversion of Layered Double Hydroxides to Superparamagnetic Spinel Platelets. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 2374-2381	9.6	69
11	Potassium niobate nanoscrolls incorporating rhodium hydroxide nanoparticles for photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 5982		46
10	Proton-Conducting Films of Nanoscale Ribbons Formed by Exfoliation of the Layer Perovskite H <sub>2</sub> SrTa <sub>2</sub> O <sub>7</sub> . <i>Chemistry of Materials</i> , <b>2008</b> , 20, 213-219	9.6	19
9	pH-Dependent Intercalation of Gold Nanoparticles into a Synthetic Fluoromica Modified with Poly(Allylamine). <i>Chemistry of Materials</i> , <b>2007</b> , 19, 6588-6596	9.6	19
8	Scrolled Sheet Precursor Route to Niobium and Tantalum Oxide Nanotubes. <i>Nano Letters</i> , <b>2007</b> , 7, 2142-2145	21.45	108
7	Encapsulation of Anionic Dye Molecules by a Swelling Fluoromica through Intercalation of Cationic Polyelectrolytes. <i>Chemistry of Materials</i> , <b>2007</b> , 19, 79-87	9.6	37
6	Structural Effects in the Protonic/Electronic Conductivity of Dion-Jacobson Phase Niobate and Tantalate Layered Perovskites. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 3185-3191	3.8	32
5	Intercalation of well-dispersed gold nanoparticles into layered oxide nanosheets through intercalation of a polyamine. <i>Journal of the American Chemical Society</i> , <b>2007</b> , 129, 3064-5	16.4	54
4	A Scrolled Sheet Precursor Route to Niobium Oxide Nanotubes. <i>Materials Research Society Symposia Proceedings</i> , <b>2006</b> , 988, 1		2
3	Interlayer Charge Conversion Through Intercalation of Polycations into a Synthetic Swelling Mica. <i>Materials Research Society Symposia Proceedings</i> , <b>2006</b> , 988, 1		1
2	Synthesis of carbon nanotubes on Ni/carbon-fiber catalysts under mild conditions. <i>Carbon</i> , <b>2004</b> , 42, 727-736	10.4	74
1	Formation of Hydrogen through the Decomposition of Kerosene over Nickel-Based Catalysts. <i>Energy &amp; Fuels</i> , <b>2004</b> , 18, 1775-1783	4.1	4