

# Dorthe Bomholdt Ravensb k

## List of Publications by Year in descending order

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59  
papers

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172443

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62  
docs citations

62  
times ranked

2642  
citing authors

#	ARTICLE	IF	CITATIONS
1	Materials for hydrogen-based energy storage – past, recent progress and future outlook. Journal of Alloys and Compounds, 2020, 827, 153548.	5.5	518
2	Metal borohydrides and derivatives – synthesis, structure and properties. Chemical Society Reviews, 2017, 46, 1565-1634.	38.1	320
3	Tailoring properties of borohydrides for hydrogen storage: A review. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 1754-1773.	1.8	236
4	Complex Metal Hydrides for Hydrogen, Thermal and Electrochemical Energy Storage. Energies, 2017, 10, 1645.	3.1	152
5	NaSc(BH <sub>4</sub> ) <sub>4</sub> : A Novel Scandium-Based Borohydride. Journal of Physical Chemistry C, 2010, 114, 1357-1364.	3.1	137
6	Structure and Dynamics for LiBH <sub>4</sub> –LiCl Solid Solutions. Chemistry of Materials, 2009, 21, 5772-5782.	6.7	135
7	LiCe(BH <sub>4</sub> ) <sub>3</sub> Cl, a New Lithium-Ion Conductor and Hydrogen Storage Material with Isolated Tetranuclear Anionic Clusters. Chemistry of Materials, 2012, 24, 1654-1663.	6.7	128
8	Pressure and Temperature Influence on the Desorption Pathway of the LiBH <sub>4</sub> –MgH <sub>2</sub> Composite System. Journal of Physical Chemistry C, 2010, 114, 15212-15217.	3.1	127
9	Thermal Polymorphism and Decomposition of Y(BH <sub>4</sub> ) <sub>3</sub> . Inorganic Chemistry, 2010, 49, 3801-3809.	4.0	96
10	Structure and Characterization of KSc(BH <sub>4</sub> ) <sub>4</sub> . Journal of Physical Chemistry C, 2010, 114, 19540-19549.	3.1	95
11	Characterization of Electronic and Ionic Transport in Li <sub>1-x</sub> Ni <sub>x</sub> O <sub>0.15</sub> Al <sub>0.05</sub> O <sub>0.8</sub> . Journal of the Electrochemical Society, 2015, 162, A1163-A1169.		
12	Screening of Metal Borohydrides by Mechanochemistry and Diffraction. Angewandte Chemie - International Edition, 2012, 51, 3582-3586.	13.8	83
13	Metal–Organic Framework Glass Anode with an Exceptional Cycling–Induced Capacity Enhancement for Lithium–Ion Batteries. Advanced Materials, 2022, 34, e2110048.	21.0	83
14	Iodide substitution in lithium borohydride, LiBH <sub>4</sub> –LiI. Journal of Alloys and Compounds, 2011, 509, 8299-8305.	5.5	80
15	Na <sub>3</sub> Ti <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> as a sodium-bearing anode for rechargeable aqueous sodium-ion batteries. Electrochemistry Communications, 2014, 44, 12-15.	4.7	63
16	Accommodating High Transformation Strains in Battery Electrodes via the Formation of Nanoscale Intermediate Phases: Operando Investigation of Olivine NaFePO <sub>4</sub> . Nano Letters, 2017, 17, 1696-1702.	9.1	49
17	Mixed–Anion and Mixed–Cation Borohydride KZn(BH <sub>4</sub> ) <sub>2</sub> Cl <sub>2</sub> : Synthesis, Structure and Thermal Decomposition. European Journal of Inorganic Chemistry, 2010, 2010, 1608-1612.	2.0	48
18	Full-cell hydride-based solid-state Li batteries for energy storage. International Journal of Hydrogen Energy, 2019, 44, 7875-7887.	7.1	46

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19	Structural Evolution of Disordered $\text{Li}_{x}\text{V}_{2}\text{O}_{5}$ Bronzes in $\text{V}_{2}\text{O}_{5}$ Cathodes for Li-Ion Batteries. <i>Chemistry of Materials</i> , 2019, 31, 512-520.	6.7	46
20	Hydrogen Storage Capacity Loss in a $\text{LiBH}_{4}$ -Al Composite. <i>Journal of Physical Chemistry C</i> , 2013, 117, 7423-7432.	3.1	45
21	Engineering the Transformation Strain in $\text{LiMn}_{1-y}\text{Fe}_{y}\text{PO}_{4}$ Olivines for Ultrahigh Rate Battery Cathodes. <i>Nano Letters</i> , 2016, 16, 2375-2380.	9.1	45
22	Chloride substitution in sodium borohydride. <i>Journal of Solid State Chemistry</i> , 2011, 184, 1858-1866.	2.9	44
23	Competitive reactions during synthesis of zinc aluminum layered double hydroxides by thermal hydrolysis of urea. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21795-21806.	10.3	43
24	Tuning hydrogen storage properties and reactivity: Investigation of the $\text{LiBH}_{4}$ -NaAlH <sub>4</sub> system. <i>Journal of Physics and Chemistry of Solids</i> , 2010, 71, 1144-1149.	4.0	42
25	Order-disorder transition in nano-rutile $\text{TiO}_{2}$ anodes: a high capacity low-volume change Li-ion battery material. <i>Nanoscale</i> , 2019, 11, 12347-12357.	5.6	40
26	Potassium Zinc Borohydrides Containing Triangular $[\text{Zn}(\text{BH}_{4})_{3}]^{\sim}$ and Tetrahedral $[\text{Zn}(\text{BH}_{4})_{4}]^{\sim}$ Anions. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1563-1571.	3.1	34
27	Reorientational Motion in Alkali-Metal Borohydrides: NMR Data for $\text{RbBH}_{4}$ and $\text{CsBH}_{4}$ and Systematics of the Activation Energy Variations. <i>Journal of Physical Chemistry C</i> , 2011, 115, 10305-10309.	3.1	33
28	A mixed-cation mixed-anion borohydride $\text{NaY}(\text{BH}_{4})_{2}\text{Cl}_{2}$ . <i>International Journal of Hydrogen Energy</i> , 2012, 37, 8428-8438.	7.1	33
29	Synthesis, Structure, and Li-Ion Conductivity of $\text{LiLa}(\text{BH}_{4})_{3}\text{X}$ , X = Cl, Br, I. <i>Journal of Physical Chemistry C</i> , 2017, 121, 19010-19021.	3.1	32
30	Fluoride substitution in $\text{LiBH}_{4}$ ; destabilization and decomposition. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 30157-30165.	2.8	30
31	Mechanism for reversible hydrogen storage in $\text{LiBH}_{4}$ -Al. <i>Journal of Applied Physics</i> , 2012, 111, 112621.	2.5	27
32	The Effect of $\text{H}_{2}$ Partial Pressure on the Reaction Progression and Reversibility of Lithium-Containing Multicomponent Destabilized Hydrogen Storage Systems. <i>Journal of the American Chemical Society</i> , 2011, 133, 13534-13538.	13.7	23
33	Hydrogen reversibility of $\text{LiBH}_{4}$ - $\text{MgH}_{2}$ -Al composites. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 8970-8980.	2.8	23
34	Structural Investigation of Zn(II) Insertion in Bayerite, an Aluminum Hydroxide. <i>Inorganic Chemistry</i> , 2016, 55, 9306-9315.	4.0	22
35	Synthesis, structure and properties of new bimetallic sodium and potassium lanthanum borohydrides. <i>Dalton Transactions</i> , 2016, 45, 19002-19011.	3.3	22
36	Hydrogen Storage Stability of Nanoconfined $\text{MgH}_{2}$ upon Cycling. <i>Inorganics</i> , 2017, 5, 57.	2.7	21

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37	All-solid-state lithium batteries â€“ The Mg <sub>2</sub> FeH <sub>6</sub> -electrode LiBH <sub>4</sub> -electrolyte system. <i>Electrochemistry Communications</i> , 2018, 87, 81-85.	4.7	21
38	Nanoconfined NaAlH <sub>4</sub> Conversion Electrodes for Li Batteries. <i>ACS Omega</i> , 2017, 2, 1956-1967.	3.5	18
39	Dynamic charge-discharge phase transitions in Li <sub>3</sub> V <sub>2</sub> (PO <sub>4</sub> ) <sub>3</sub> cathodes. <i>Journal of Power Sources</i> , 2018, 396, 437-443.	7.8	18
40	Synthesis, structure and properties of bimetallic sodium rare-earth (RE) borohydrides, NaRE(BH <sub>4</sub> ) <sub>4</sub> , RE = Ce, Pr, Er or Gd. <i>Dalton Transactions</i> , 2017, 46, 13421-13431.	3.3	17
41	Reducing Transformation Strains during Na Intercalation in Olivine FePO <sub>4</sub> Cathodes by Mn Substitution. <i>ACS Applied Energy Materials</i> , 2019, 2, 8060-8067.	5.1	15
42	NMR Study of Molecular Dynamics in Complex Metal Borohydride LiZn <sub>2</sub> (BH <sub>4</sub> ) <sub>5</sub> . <i>Journal of Physical Chemistry C</i> , 2013, 117, 21139-21147.	3.1	14
43	Crystalline Disorder, Surface Chemistry, and Their Effects on the Oxygen Evolution Reaction (OER) Activity of Mass-Produced Nanostructured Iridium Oxides. <i>ACS Applied Energy Materials</i> , 2021, 4, 2552-2562.	5.1	14
44	Structural Evolution during Lithium- and Magnesium-Ion Intercalation in Vanadium Oxide Nanotube Electrodes for Battery Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 5071-5082.	5.0	12
45	Scandium functionalized carbon aerogel: Synthesis of nanoparticles and structure of a new ScOCl and properties of NaAlH <sub>4</sub> as a function of pore size. <i>Journal of Solid State Chemistry</i> , 2015, 231, 190-197.	2.9	9
46	Barium borohydride chlorides: synthesis, crystal structures and thermal properties. <i>Dalton Transactions</i> , 2016, 45, 8291-8299.	3.3	8
47	Expanded solid-solution behavior and charge-discharge asymmetry in Na <sub>x</sub> CrO <sub>2</sub> Na-ion battery electrodes. <i>Journal of Power Sources</i> , 2022, 535, 231317.	7.8	8
48	Investigation of MBH <sub>4</sub> â€“VCl <sub>2</sub> , M=Li, Na or K. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8376-8383.	7.1	7
49	Insight into Poor Cycling Stability of MgH <sub>2</sub> Anodes. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3138-A3143.	2.9	7
50	Phase Transformation Mechanism of Li-Ion Storage in Iron(III) Hydroxide Phosphates. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1930-1938.	3.1	7
51	Improving capacity and rate capability of Li-ion cathode materials through ball milling and carbon coating â€“ Best practice for research purposes. <i>Solid State Ionics</i> , 2020, 344, 115152.	2.7	6
52	Synthesis and Thermal Degradation of MA <sub>4</sub> (OH) <sub>12</sub> SO <sub>4</sub> ·3H <sub>2</sub> O with M = Co <sup>2+</sup> , Ni <sup>2+</sup> , Cu <sup>2+</sup> , and Zn <sup>2+</sup> . <i>Inorganic Chemistry</i> , 2021, 60, 16700-16712.	4.0	6
53	<i>nmfMapping</i> : a cloud-based web application for non-negative matrix factorization of powder diffraction and pair distribution function datasets. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2022, 78, 242-248.	0.1	6
54	Improved hydrogen storage kinetics of nanoconfined LiBH <sub>4</sub> -MgH <sub>2</sub> reactive hydride composites catalyzed with nickel Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1441, 1.	0.1	5

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55	Understanding disorder in oxide-based electrode materials for rechargeable batteries. JPhys Energy, 2021, 3, 031002.	5.3	4
56	Na-Ion storage in iron hydroxide phosphate hydrate through a reversible crystalline-to-amorphous phase transition. Nanoscale, 2020, 12, 12824-12830.	5.6	3
57	Polymorphic Purity and Structural Charge Discharge Evolution of $\text{LiVOPO}_4$ Cathodes. Journal of Physical Chemistry C, 2021, 125, 24301-24309.	3.1	3
58	Effect of Oxygen Defects on the Structural Evolution of $\text{LiVPO}_4\text{F}$ Cathode Materials. ACS Applied Energy Materials, 2020, 3, 9750-9759.	5.1	2
59	State of $\text{LiFePO}_4$ Li-Ion Battery Electrodes after 6533 Deep-Discharge Cycles Characterized by Combined Micro-XRF and Micro-XRD. ACS Applied Energy Materials, 2022, 5, 4358-4368.	5.1	2