

# Didier Blanchard

## List of Publications by Year in descending order

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Version: 2024-02-01

40  
papers

1,811  
citations

361045

20  
h-index

315357

38  
g-index

42  
all docs

42  
docs citations

42  
times ranked

1718  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Visualization of Dissolution&Precipitation Processes in Lithium&Sulfur Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .   | 10.2 | 24        |
| 2  | Effects of LiBF <sub>4</sub> Addition on the Lithium-Ion Conductivity of LiBH <sub>4</sub> . <i>Molecules</i> , 2022, 27, 2187.  | 1.7  | 7         |
| 3  | Layered double hydroxides as advanced tracks to promote ionic conductivity in metal borohydride. <i>Materials Chemistry Frontiers</i> , 2021, 5, 4989-4996.  | 3.2  | 6         |
| 4  | Sr(NH <sub>3</sub> ) <sub>8</sub> Cl <sub>2</sub> -Expanded Natural Graphite composite for thermochemical heat storage applications studied by in-situ neutron imaging. <i>Journal of Energy Storage</i> , 2021, 34, 102176.   | 3.9  | 10        |
| 5  | Intrinsic kinetics in local modelling of thermochemical heat storage systems. <i>Applied Thermal Engineering</i> , 2021, 192, 116880.  | 3.0  | 6         |
| 6  | Small-Angle Neutron Scattering Characterization of SrCl <sub>2</sub> &ENG Composites for Thermochemical Heat Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 34213-34226.   | 4.0  | 3         |
| 7  | In operando Raman and optical study of lithium polysulfides dissolution in lithium&sulfur cells with carrageenan binder. <i>JPhys Energy</i> , 2021, 3, 044003.  | 2.3  | 4         |
| 8  | Neutron radiography for local modelling of thermochemical heat storage reactors: Case study on SrCl <sub>2</sub> &NH <sub>3</sub> . <i>International Journal of Heat and Mass Transfer</i> , 2021, 178, 121287.  | 2.5  | 4         |
| 9  | Materials for hydrogen-based energy storage & past, recent progress and future outlook. <i>Journal of Alloys and Compounds</i> , 2020, 827, 153548.  | 2.8  | 518       |
| 10 | Synthesis, Structure and NH <sub>3</sub> Sorption Properties of Mixed Mg <sub>1-x</sub> Mn <sub>x</sub> (NH <sub>3</sub> ) <sub>6</sub> Cl <sub>2</sub> Ammines. <i>Energies</i> , 2020, 13, 2746.   | 1.6  | 3         |
| 11 | In-situ neutron imaging study of NH <sub>3</sub> absorption and desorption in SrCl <sub>2</sub> within a heat storage prototype reactor. <i>Journal of Energy Storage</i> , 2020, 29, 101388.  | 3.9  | 10        |
| 12 | Full-cell hydride-based solid-state Li batteries for energy storage. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 7875-7887.  | 3.8  | 46        |
| 13 | The influence of silica surface groups on the Li-ion conductivity of LiBH <sub>4</sub> /SiO <sub>2</sub> nanocomposites. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 22456-22466.   | 1.3  | 24        |
| 14 | Numerical Design of a Reactor for an Ammonia-SrCl <sub>2</sub> Thermochemical Storage System. , 2019, , .  |      | 2         |
| 15 | Lithium Conductivity and Ions Dynamics in LiBH <sub>4</sub> /SiO <sub>2</sub> Solid Electrolytes Studied by Solid-State NMR and Quasi-Elastic Neutron Scattering and Applied in Lithium&Sulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 15264-15275. | 1.5  | 51        |
| 16 | (Invited) Light Metal Hydride Nanocomposites As Room Temperature Solid Electrolytes. <i>ECS Meeting Abstracts</i> , 2018, , .  | 0.0  | 0         |
| 17 | All-Solid-State Lithium-Sulfur Battery Based on a Nanoconfined LiBH <sub>4</sub> Electrolyte. <i>Journal of the Electrochemical Society</i> , 2016, 163, A2029-A2034.  | 1.3  | 90        |
| 18 | Complex hydrides as room-temperature solid electrolytes for rechargeable batteries. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.   | 1.1  | 48        |

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|----|---|------|-----------|
| 19 | Accelerated DFT-Based Design of Materials for Ammonia Storage. <i>Chemistry of Materials</i> , 2015, 27, 4552-4561.   | 3.2  | 18        |
| 20 | Nanoconfined $\text{LiBH}_4$ as a Fast Lithium Ion Conductor. <i>Advanced Functional Materials</i> , 2015, 25, 184-192.   | 7.8  | 176       |
| 21 | Solid solution barium-strontium chlorides with tunable ammonia desorption properties and superior storage capacity. <i>Journal of Solid State Chemistry</i> , 2015, 221, 32-36.   | 1.4  | 14        |
| 22 | Ionic conductivity and the formation of cubic $\text{CaH}_2$ in the $\text{LiBH}_4$ - $\text{Ca}(\text{BH}_4)_2$ composite. <i>Journal of Solid State Chemistry</i> , 2014, 211, 81-89.   | 1.4  | 18        |
| 23 | Li-ion Conduction in the $\text{LiBH}_4$ :LiI System from Density Functional Theory Calculations and Quasi-Elastic Neutron Scattering. <i>Journal of Physical Chemistry C</i> , 2013, 117, 9084-9091.                               | 1.5  | 43        |
| 24 | Analysis of the decomposition gases from $\text{Li}$ and $\text{Li}_2$ - $\text{Cd}(\text{BH}_4)_2$ synthesized by temperature controlled mechanical milling. <i>Journal of Alloys and Compounds</i> , 2013, 547, 76-80.            | 2.8  | 8         |
| 25 | Effect of Heat Treatment on the Lithium Ion Conduction of the $\text{LiBH}_4$ -LiI Solid Solution. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3249-3257.   | 1.5  | 65        |
| 26 | Hindered Rotational Energy Barriers of $\text{BH}_4$ Tetrahedra in $\text{Li}_2\text{-Mg}(\text{BH}_4)_2$ from Quasielastic Neutron Scattering and DFT Calculations. <i>Journal of Physical Chemistry C</i> , 2012, 116, 2013-2023. | 1.5  | 43        |
| 27 | The location of Ti containing phases after the completion of the $\text{NaAlH}_4+x\text{TiCl}_3$ milling process. <i>Journal of Alloys and Compounds</i> , 2012, 513, 597-605.  | 2.8  | 18        |
| 28 | Ammonia dynamics in magnesium ammine from DFT and neutron scattering. <i>Energy and Environmental Science</i> , 2010, 3, 448.   | 15.6 | 47        |
| 29 | Hydrogen Rotational and Translational Diffusion in Calcium Borohydride from Quasielastic Neutron Scattering and DFT Calculations. <i>Journal of Physical Chemistry C</i> , 2010, 114, 20249-20257.                                  | 1.5  | 23        |
| 30 | Reversibility of Al/Ti Modified $\text{LiBH}_4$ . <i>Journal of Physical Chemistry C</i> , 2009, 113, 14059-14066.  | 1.5  | 46        |
| 31 | $\text{LiAlD}_4$ with $\text{VCl}_3$ additives: Influence of ball-milling energies. <i>Journal of Alloys and Compounds</i> , 2008, 458, 467-473.  | 2.8  | 6         |
| 32 | Pressure-induced phase transitions of the $\text{LiAlD}_4$ system. <i>Physical Review B</i> , 2005, 72, .   | 1.1  | 20        |
| 33 | Analytical Electron Microscopy Studies of Lithium Aluminum Hydrides with Ti- and V-Based Additives. <i>Journal of Physical Chemistry B</i> , 2005, 109, 4350-4356.  | 1.2  | 21        |
| 34 | Electron microscopy studies of lithium aluminium hydrides. <i>Journal of Alloys and Compounds</i> , 2005, 395, 307-312.   | 2.8  | 23        |
| 35 | Isothermal decomposition of $\text{LiAlD}_4$ with and without additives. <i>Journal of Alloys and Compounds</i> , 2005, 404-406, 743-747.   | 2.8  | 34        |
| 36 | Desorption of $\text{LiAlH}_4$ with Ti- and V-based additives. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 108, 54-59.  | 1.7  | 113       |

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|----|--|-----|-----------|
| 37 | Synchrotron X-ray and neutron diffraction studies of NaAlH <sub>4</sub> containing Ti additives. Journal of Alloys and Compounds, 2004, 376, 215-221.  | 2.8 | 155       |
| 38 | Correlation between current density and layer structure for fine particle deposition in a laboratory electrostatic precipitator. IEEE Transactions on Industry Applications, 2002, 38, 832-839.      | 3.3 | 26        |
| 39 | Drift velocity of fine particles estimated from fractional efficiency measurements in a laboratory-scaled electrostatic precipitator. IEEE Transactions on Industry Applications, 2002, 38, 852-857. | 3.3 | 19        |
| 40 | Effect of electro-aero-dynamically induced secondary flow on transport of fine particles in an electrostatic precipitator. Journal of Electrostatics, 2001, 51-52, 212-217.                          | 1.0 | 19        |