

Hydrogen Materials Advanced Research Consortium (HyMARC) Publications

2022

Allendorf, M.D., V. Stavila, J. L. Snider, M. Witman, M. E. Bowden, K. Brooks, B. L. Tran, and T. Autrey. "Challenges to developing materials for the transport and storage of hydrogen" *Nat. Chem.* (2022) <https://doi.org/10.1038/s41557-022-01056-2>

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Densified HKUST-1 Monoliths as a Route to High Volumetric and Gravimetric Hydrogen Storage Capacity DG Madden, D O'Nolan, N Rampal, R Babu, C Çamur, AN Al Shakhs, et.al *J. Am. Chem. Soc.* 2022, 144, 30, 13729–13739

Photo triggered covalent organic frameworks and methods of using DR Vardon, WA Braunecker, JC Johnson, T Gennett, RE Mow, US Patent App. 17/393,961, 2022

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Reactive Vapor-Phase Additives toward Destabilizing γ-Mg(BH₄)₂ for Improved Hydrogen Release NA Strange, N Leick, S Shulda, A Schneemann, V Stavila, AS Lipton, ..., *ACS Applied Energy Materials* 5 (2), 1690-1700

Thermal stability and structural studies on the mixtures of Mg (BH 4) 2 and glymes N Leick, BL Tran, ME Bowden, T Gennett, T Autrey *Dalton Transactions* 51 (18), 7268-7273, 2022

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"Defying Thermodynamics: Stabilization of Alane Within Covalent Triazine Frameworks for Reversible Hydrogen Storage" V. Stavila*†, S. Li†, C. Dun, M.A.T. Marple, H.E. Mason, J.L. Snider, J.E. Reynolds III, C. Spataru, X. Zhou, B. Dizdar, E.H. Majzoubm H. Schlomberg, B.V. Lotsch, J.J. Urban, B.C. Wood, and M.D. Allendorf*, submitted *Angewandte Chemie* (in revision) (*co-corresponding authors)

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