

Publication list (as of March 2014)

Peer Reviewed Journal Articles

1. A.A. Talin, A. Centrone, A.C. Ford, M.E. Foster, V. Stavila, P. Haney, R.A. Kinney, V. Szalai, F. El Gabaly, H.P. Yoon, F. Leonard, M.D. Allendorf, *Science*, **2014**, *343*, 66–69.
“Tunable Electrical Conductivity in Metal-Organic Framework Thin-Film Devices”
2. N. Verdal, J.-H. Her, V. Stavila, A.V. Soloninin, O.A. Babanova, A.V. Skripov, T.J. Udovic, J.J. Rush, *Journal of Solid State Chemistry*, **2014**, *212*, 81-91.
“Complex high-temperature phase transitions in $\text{Li}_2\text{B}_{12}\text{H}_{12}$ and $\text{Na}_2\text{B}_{12}\text{H}_{12}$ ”
3. T.J. Udovic, M. Matsuo, A. Unemoto, N. Verdal, V. Stavila, A.V. Skripov, J.J. Rush, H. Takamura, S. Orimo, *Chemical Communications*, **2014**, DOI: 10.1039/C3CC49805K.
“Sodium superionic conduction in $\text{Na}_2\text{B}_{12}\text{H}_{12}$ ”
4. V. Stavila, D.B. Robinson, Hekmaty M.A, R. Nishimoto, D.L. Medlin, S. Zhu, T.M. Tritt, P.A. Sharma, *ACS Applied Materials & Interfaces*, **2013**, *5*, 6678–6686.
“Wet-chemical synthesis and consolidation of stoichiometric bismuth telluride nanoparticles for improving the thermoelectric figure-of-merit”
5. X. Liu, E.H. Majzoub, V. Stavila, R. Bhakta, M.D. Allendorf, M. Conradi, N. Verdal, T. Udovic, *Journal of Materials Chemistry A*, **2013**, *1*, 9935-9941.
“Probing the unusual anion mobility of LiBH_4 confined in highly ordered nanoporous carbon frameworks via solid state NMR and quasielastic neutron scattering”
6. I. Ellern, A. Vankatasubramanian, J.H. Lee, P.J. Hesketh, V. Stavila, A. Robinson, M.D. Allendorf, *Micro and Nano Letters*, **2013**, *8*, 766–769.
“HKUST-1 coated piezoresistive microcantilever array for volatile organic compound sensing”
7. A.V. Skripov, O.A. Babanova, A.V. Soloninin, V. Stavila, N. Verdal, T.J. Udovic, J.J. Rush, *Journal of Physical Chemistry C*, **2013**, *117*, 25961-25968.
“Nuclear magnetic resonance study of atomic motion in $\text{A}_2\text{B}_{12}\text{H}_{12}$ (A = Na, K, Rb, Cs): Anion reorientations and Na^+ mobility”
8. P.J. Cappillino, K.M. Hattar, B.G. Clark, V. Stavila, J. Sugar, D.B. Robinson, *Journal of Materials Chemistry A*, **2013**, *1*, 602-610.
“Synthesis of mesoporous palladium with tunable porosity and demonstration of its thermal stability by in situ heating and environmental transmission electron microscopy”
9. R.L. Davidovich, D.V. Marinin, V. Stavila, K.H. Whitmire, *Coordination Chemistry Reviews*, **2013**, *257*, 3074–3088.
“Stereochemistry of fluoride and mixed-fluoride complexes of zirconium and hafnium”
10. A. Eichorst, P. Varanasi, V. Stavila, M. Zemla, M. Auer, S. Singh, B.A. Simmons, *Environmental Microbiology* **2013**, *15*, 2573-2587.
“Community dynamics of cellulose-adapted thermophilic bacterial consortia”
11. A.M. Socha, S.P. Plummer, V. Stavila, B.A. Simmons, S. Singh, *Biotechnology for Biofuels*, **2013**, *6*, 61, DOI: 10.1186/1754-6834-6-61.

- “Comparison of sugar content for ionic liquid pretreated Douglas-fir woodchips and forestry residues”
12. A.G. Cruz, C. Scullin, C. Mu, G. Cheng, [V. Stavila](#), P. Varanasi, D.Y. Xu, J. Mentel, Y.D. Chuang, B.A. Simmons, S. Singh, *Biotechnology for Biofuels*, **2013**, 6, 52, DOI: 10.1186/1754-6834-6-52.
“Impact of high biomass loading on ionic liquid pretreatment”
 13. N. Sun, H. Liu, N. Sathitsuksanoh, A. George, [V. Stavila](#), B.A. Simmons, S. Singh, *Biotechnology for Biofuels*, **2013**, 6, 39, DOI: 10.1186/1754-6834-6-39.
“Production and extraction of sugars from switchgrass hydrolyzed in ionic liquids”
 14. J.A. Perez-Pimienta, M.G. Lopez-Ortega, P. Varanasi, C. Scullin, G. Cheng, [V. Stavila](#), B.A. Simmons, S. Singh, *Bioresource Technology*, **2013**, 127, 18-24.
“Comparison of the impact of ionic liquid pretreatment on recalcitrance of agave bagasse and switchgrass”
 15. [V. Stavila](#), R.K. Bhakta, T.M. Alam, E.H. Majzoub, M.D. Allendorf, *ACS Nano*, **2012**, 6, 9807-9817.
“Reversible Hydrogen Storage by NaAlH₄ Confined within a Titanium-Functionalized MOF-74(Mg) Nanoreactor”
 16. G. Cheng, P. Varanasi, R. Arora, C. Scullin, [V. Stavila](#), B.A. Simmons, S. Singh, *Journal of Physical Chemistry B*, **2012**, 116, 10049-10054.
“Impact of ionic liquid pretreatment conditions on cellulose crystalline structure using 1-ethyl-3-methylimidazolium acetate”
 17. H. Liu, G. Cheng, M. Kent, P. Varanasi, [V. Stavila](#), B.A. Simmons, S. Singh, *Journal of Physical Chemistry B*, **2012**, 116, 8131–8138.
“Simulations reveal conformational changes of methylhydroxyl groups during dissolution of cellulose *I_{beta}* in ionic liquid 1-ethyl-3-methyl-imidazolium acetate”
 18. [V. Stavila](#), J. Volponi, A.M. Katzenmeyer, M.C. Dixon, M.D. Allendorf, *Chemical Science*, **2012**, 3, 1531–1540.
“Kinetics and Mechanism of Metal-Organic Thin Film Growth: Systematic Investigation of HKUST-1 Deposition on QCM Electrodes”
 19. A.L. Robinson, [V. Stavila](#), T.R. Zeitler, M.I. White, S.M. Thornberg, J.A. Greathouse, M.D. Allendorf, *Analytical Chemistry*, **2012**, 84, 7043-7051.
“Ultrasensitive Humidity Detection Using Metal-Organic Framework-Coated Microsensors”
 20. A. Vankatasubramanian, J.H. Lee, [V. Stavila](#), A. Robinson, M.D. Allendorf, P.J. Hesketh, *Sensors and Actuators B: Chemical*, **2012**, 168, 256–262.
“MOF@MEMS: Design Optimization for High Sensitivity Chemical Detection”
 21. R.K. Bhakta, S. Maharrey, [V. Stavila](#), E.H. Majzoub, M.D. Allendorf, *Physical Chemistry Chemical Physics*, **2012**, 14, 8160–8169.
“Thermodynamics and Kinetics of NaAlH₄ Nanocluster Decomposition”
 22. D. Banga, J.L. Lensch-Falk, D.L. Medlin, [V. Stavila](#), N.Y.C. Yang, D.B. Robinson, P.A. Sharma, *Crystal Growth & Design*, **2012**, 12, 1347–1353.
“Periodic Modulation of Sb Stoichiometry in Bi₂Te₃/Bi_{2-x}Sb_xTe₃ Multilayers Using Pulsed Electrodeposition”

23. J.L. Lensch-Falk, D. Banga, P.E. Hopkins, D.B. Robinson, [V. Stavila](#), P.A. Sharma, D.L. Medlin, *Thin Solid Films*, **2012**, 520, 6109–6117.
“Electrodeposition and Characterization of Nano-Crystalline Antimony Telluride Thin Films”
24. P.J. Cappillino, J.D. Sugar, M.A. Hekmaty, B.W. Jacobs, [V. Stavila](#), P.G. Kotula, J.M. Chames, N.Y. Yang, D.B. Robinson, *Journal of Materials Chemistry*, **2012**, 22, 14013–14022.
“Nanoporous Pd Alloys with Compositionally Tunable Hydrogen Storage Properties Prepared by Nanoparticle Consolidation”
25. J.H. Her, H. Wu, N. Verdál, W. Zhou, [V. Stavila](#), T.J. Udovic, *Journal of Alloys and Compounds*, **2012**, 514, 71–75.
“Structures of Strontium and Barium Dodecahydro-*closo*-dodecaborates”
26. G. Papa, P. Varanasi, L. Sun, G. Cheng, [V. Stavila](#), B. Holmes, B.A. Simmons, F. Adani, S. Singh, *Bioresource Technology*, **2012**, 117, 352–359.
“Exploring the Effect of Different Plant Lignin Content and Composition on Ionic Liquid Pretreatment Efficiency and Enzymatic Saccharification of Eucalyptus Globulus L. Mutants”
27. W. Luo, [V. Stavila](#), L.E. Klebanoff, *International Journal of Hydrogen Energy*, **2012**, 37, 6646–6652.
“New Insights into the Mechanism of Activation and Hydrogen Absorption of (2LiNH₂-MgH₂)”
28. M.D. Allendorf, A. Schwartzberg, [V. Stavila](#), A.A. Talin, *Chemistry – A European Journal*, **2011**, 17, 11372–11288.
“A Roadmap to Implementing Metal-Organic Frameworks in Electronic Devices: Challenges and Critical Directions”
29. M.P. Klein, B.W. Jacobs, M.D. Ong, S.J. Fares, D.B. Robinson, [V. Stavila](#), G.J. Wagner, I. Arslan, *Journal of the American Chemical Society*, **2011**, 133, 9144–9147.
“Three-Dimensional Pore Evolution of Nanoporous Metal Particles for Energy Storage”
30. N. Verdál, H. Wu, T.J. Udovic, [V. Stavila](#), W. Zhou, J.J. Rush, *Journal of Solid State Chemistry*, **2011**, 184, 3110–3116.
“Evidence of a Transition to Reorientational Disorder in the Cubic Alkali-Metal Dodecahydro-*closo*-dodecaborates”
31. N. Verdál, T.J. Udovic, J.J. Rush, [V. Stavila](#), H. Wu, W. Zhou, T. Jenkins, *Journal of Chemical Physics*, **2011**, 135, 094501.
“Low-Temperature Tunneling and Rotational Dynamics of the Ammonium Cations in (NH₄)₂B₁₂H₁₂”
32. D.T. Shane, L.H. Rayhel, Z.G. Huang, J.C. Zhao, X. Tang, [V. Stavila](#), M.S. Conradi, *Journal of Physical Chemistry C*, **2011**, 115, 3172–3177.
“Comprehensive NMR Study of Magnesium Borohydride”
33. N. Verdál, W. Zhou, [V. Stavila](#), J.-H. Her, M. Yousufuddin, T. Yildirim, T.J. Udovic, *Journal of Alloys and Compounds*, **2011**, 509, S694–S697.
“Alkali and Alkali-Earth Metal Dodecahydro-*Closo*-Dodecaborates: Probing Structural Variations via Neutron Vibrational Spectroscopy”
34. [V. Stavila](#), J.-H. Her, W. Zhou, S.-J. Hwang, Ch. Kim, L.-A. M. Ottley, T.J. Udovic, *Journal of Solid State Chemistry*, **2010**, 183, 1133–1140.
“Calcium Dodecahydro-*closo*-dodecaborate: Synthesis, Structure and Relevance to Hydrogen Storage”

35. [V. Stavila](#), I. Bulimestru, A. Gulea, A.C. Colson, K.H. Whitmire., *Acta Crystallographica, Section C*, **2011**, C67, m65-m68.
“Hexaaquacobalt(II) and Hexaaquanickel(II) bis(μ -pyridine-2,6-dicarboxylato)bis[(pyridine-2,6-dicarboxylato) bismuthate(III)] Dihydrate”
36. [V. Stavila](#), K.H. Whitmire., *Acta Crystallographica, Section E*, **2010**, E66, m1547-m1548.
“(N,N-Dimethylformamide- κ O)bis(3-hydroxypicolinato- κ^2 N,O²)phenylbismuth(III)”
37. T. Mandal, G. Piburn, [V. Stavila](#), I. Rusakova, T. Ould-Ely, A.C. Colson, K.H. Whitmire, *Chemistry of Materials*, **2011**, 23, 4158–4169.
“New Mixed Ligand Single-Source Precursors for PbS Nanoparticles and Their Solvothermal Decomposition to Anisotropic Nano- and Microstructures”
38. R. Newhouse, [V. Stavila](#), S. Hwang, J. Zhang, *Journal of Physical Chemistry C*, **2010**, 114, 5224–5232.
“Reversibility and Improved Hydrogen Release of Magnesium Borohydride”
39. W. Luo, D. Cowgill, K. Stewart, [V. Stavila](#), *Journal of Alloys and Compounds*, **2010**, 497, L17–L20.
“High Capacity Hydrogen Generation on Demand from (NH₃ + LiAlH₄)”
40. K.C. Kim, M.D. Allendorf, [V. Stavila](#), D.S. Sholl, *Physical Chemistry Chemical Physics*, **2010**, 12, 9918–9926.
“Predicting Impurity Gases and Phases during Hydrogen Evolution from Complex Metal Hydrides Using Free Energy Minimization Enabled by First-Principles Calculations”
41. R.L. Davidovich, [V. Stavila](#), K.H. Whitmire, *Coordination Chemistry Reviews*, **2010**, 250, 2782–2810.
“Stereochemistry of Lead(II) Complexes Containing Sulfur and Selenium Donor Atom Ligands”
42. N. Verdal, W. Zhou, [V. Stavila](#), J.-H. Her, M. Yousufuddin, T. Yildirim, T.J. Udovic, *Journal of Alloys and Compounds*, **2010**, DOI:10.1016/j.jallcom.2010.08.024.
“Alkali and Alkali-Earth Metal Dodecahydro-*Closo*-Dodecaborates: Probing Structural Variations via Neutron Vibrational Spectroscopy”,
43. [V. Stavila](#), I. Rusakova, K.H. Whitmire, *Chemistry of Materials*, **2009**, 21, 5456–5465.
“Synthesis of Bi₂S₃ Nanostructures from Bismuth(III) Thiourea and Thiosemicarbazide Complexes”
44. T. Mandal, [V. Stavila](#), I. Rusakova, S. Ghosh, K.H. Whitmire, *Chemistry of Materials*, **2009**, 21, 5617–5626.
“Molecular Precursors for CdS Nanoparticles: Synthesis and Characterization of Carboxylate-Thiourea or –Thiosemicarbazide Cadmium Complexes and Their Decomposition”
45. J.-H. Her, W. Zhou, [V. Stavila](#), C.M. Brown, T.J. Udovic, *Journal of Physical Chemistry, C*, **2009**, 113, 11187–11189.
“The Crystal Structure of Na₂B₁₂H₁₂ and the Role of Cation Size on the Structural Behavior of the Alkali-Metal Dodecahydro-*closo*-dodecaborates”
46. R.L. Davidovich, [V. Stavila](#), D.V. Marinin, E.I. Voit, K.H. Whitmire, *Coordination Chemistry Reviews*, **2009**, 253, 1316–1352.
“Stereochemistry of Lead(II) Complexes with Oxygen Donor Ligands”
47. [V. Stavila](#), E. Dikarev, *Journal of Organometallic Chemistry*, **2009**, 694, 2956–2964.
“Phenyl Bismuth *Beta*-Diketonate Complexes: Synthesis and Structural Characterization”

48. V. Stavila, J.H. Thurston, K.H. Whitmire, *Inorganic Chemistry*, **2009**, *48*, 6945–6951.
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49. V. Stavila, Y. Stortz, C. Franc, D. Pitrat, P. Maurin, J. Hasserodt, *European Journal of Inorganic Chemistry*, **2008**, 3943–3947.
“Effective Repression of the Fragmentation of a Hexadentate Ligand Bearing an Auto-Immolable Pendant Arm by Iron Coordination”
50. V. Stavila, M. Allali, L. Canaple, Y. Stortz, C. Franc, P. Maurin, O. Beuf, O. Dufay, J. Samarut, M. Janier, J. Hasserodt, *New Journal of Chemistry*, **2008**, *32*, 428–435.
“Significant Relaxivity Gap Between a Low-Spin and a High-Spin Iron(II) Complex of Structural Similarity: An Attractive Off-On System for the Potential Design of Responsive MRI Probes”
51. A. Gulea, D. Poirier, J. Roy, V. Stavila, I. Bulimestru, V. Tapcov, M. Birca, L. Popovschi, *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2008**, *23*, 806–818.
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52. P. Maurin, V. Stavila, M. Allali, L. Canaple, O. Beuf, Y. Stortz, J. Samarut, M. Janier, J. Hasserodt, *Bulletin du Cancer*, **2008**, *95*, S24–S25.
“Studies regarding the adjustment of bioactivatable contrast agents with an iron base for *in vivo* MRI”
53. V. Stavila, J.H. Thurston, D. Prieto-Centurion, K.H. Whitmire, *Organometallics*, **2007**, *26*, 6864–6866.
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54. V. Stavila, J.C. Fettinger, K.H. Whitmire, *Organometallics*, **2007**, *26*, 3321–3328.
“Synthesis and characterization of new phenylbis(salicylato)-bismuth(III) complexes”
55. V. Stavila, R.L. Davidovich, A. Gulea, K.W. Whitmire, *Coordination Chemistry Reviews*, **2006**, *250*, 2782–2810.
“Bismuth(III) complexes with aminopolycarboxylate and polyaminopolycarboxylate ligands: Chemistry and structure”
56. I.G. Filippova, Yu.A. Simonov, M. Gdanets, V. Stavila, *Journal of Structural Chemistry*, **2005**, *46*, 1095–1098.
“Crystal structure of *tris*(1,10-phenanthroline) iron(II) dinitrate dihydrate”
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“An unexpected influence of the nature of the amine on the crystal structure of some Co(III)-Bi(III) heterometallic complexes”
58. V. Stavila, A. Gulea, N. Popa, S. Shova, A. Merbach, Yu.A. Simonov, J. Lipkowski, *Inorganic Chemistry Communications*, **2004**, *7*, 634–637.
“A novel 3D Nd(III)-Bi(III) coordination polymer generated from EDTA ligand”
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“Crystal Structure of Monoprotonated Ni(II) Nitrilotriacetate Tetrahydrate”

60. V. Stavila, J.-P. Wignacourt, E. Holt, P. Conflant, M. Drache, A. Gulea. . *Inorganica Chimica Acta*, **2003**, 353, 43–50.
 “Synthesis and Structure of Some Co(III)-Bi(III) Complexes: $[\text{Co}(\text{NH}_3)_5\text{NCS}][\text{Bi}(\text{Edta})_2 \cdot 4\text{H}_2\text{O}]$, $[\text{Co}(\text{NH}_3)_4(\text{NO}_2)_2][\text{Bi}(\text{Edta})(\text{H}_2\text{O})] \cdot 2\text{H}_2\text{O}$, and $[\text{Co}(\text{NH}_3)_4\text{CO}_3](\text{BiEdta}) \cdot 3\text{H}_2\text{O}$ ”
61. R. Bachman, K. Whitmire, J. Thurston, A. Gulea, O. Stavila, V. Stavila. *Inorganica Chimica Acta*, **2003**, 346, 249–255.
 “Bismuth Ladder Polymers: Structural and Thermal Studies of $[\text{Bi}(\text{OCH}_2\text{CH}_2)_3\text{N}]_n$ and $[(\text{Bi}_x\text{Tb}_{1-x})(\text{O}_2\text{C}_2\text{H}_2)_3\text{N}] \cdot 2\text{H}_2\text{O}]_n$ ”.
62. V. Stavila, A. Gulea, S. Shova, M. Gdanec, Yu.A. Simonov. . *Russian Journal of Coordination Chemistry*, **2002**, 28, 565–572.
 “Synthesis and Study of Heterometallic Co-Bi Compounds Based on Ethylenediaminetetraacetic Acid. Crystal and Molecular Structures of $[\text{Co}(\text{DH})_2(2\text{-NH}_2\text{C}_6\text{H}_4\text{CH}_3)_2]_2[\text{Bi}_2(\mu\text{-Edta})_2(\text{H}_2\text{O})_2] \cdot 10\text{H}_2\text{O}$ ”
63. V. Stavila, M. Gdanec, S. Shova, Yu.A. Simonov, A. Gulea, J.-P. Wignacourt, *Russian Journal of Coordination Chemistry*, **2000**, 26, 741–747.
 “Synthesis and structure of $\{\mu\text{-oxalato-bis}[(\text{ethylenediaminetetraacetato})\text{-bismuthate(III)}]\}$ pentaamminethiocyanatocobalt(III)dodecahydrate, $[\text{Co}(\text{NH}_3)_5\text{NCS}]_2[(\text{EDTA})\text{Bi}(\mu\text{-C}_2\text{O}_4)\text{Bi}(\text{EDTA})] \cdot 12\text{H}_2\text{O}$ ”

Patents

1. A. Gulea, A. Cecal, A. Paraschivescu, V. Stavila, V. Tapcov, N. Popa, *Moldovan Patent MD-2673 (2005)*.
 “Lanthanum bismuthate as catalyst for water radiolysis”
2. A. Gulea, D. Poirier, J. Roy, V. Stavila, V. Tapcov, *Moldovan Patent MD-2786 (2005)*.
 “Inhibitors of human myeloid leukemia based on heteronuclear coordination compounds of cobalt(III) and bismuth(III)”
3. A. Gulea, V. Stavila, V. Tapcov, I. Bulimestru, *Moldovan Patent MD-2479 (2004)*.
 “Dodecahydrate of (diethylene-triamine-penta-acetato)bismuthate(III) of hexaaminocobalt(III) as a dielectric material”
4. A. Gulea, V. Stavila, V. Tapcov, A. Paraschivescu, A. Cecal, *Moldovan Patent MD-2450 (2004)*.
 “Catalyst for radiolytic decomposition of water for hydrogen production”
5. A. Gulea, V. Stavila, V. Tapcov, *Moldovan Patent MD-2240 (2003)*.
 “Tris(thiosemicarbazide)cobalt(III) bis(nitrioltriacetato)bismuthate(III) nonahydrate as a dielectric material”
6. A. Gulea, V. Stavila, V. Tapcov, *Moldovan Patent MD-2146 (2003)*.
 “Dielectric materials based on heteronuclear coordination complexes of cobalt(III) and bismuth(III)”
7. A. Gulea, V. Stavila, I. Bulimestru, J.-P. Wignacourt, V. Tapcov. *Moldovan Patent MD-1559 (2000)*.
 “Process for obtaining bismuth cuprate”

Book Chapter

V. Stavila, L.E. Klebanoff, J.J. Vajo, P. Chen, "Development of On-Board Reversible Complex Metal Hydrides for Hydrogen Storage" in *Hydrogen Storage Technology: Materials and Applications*, Ed. L.E. Klebanoff, Taylor and Francis, Boca Raton, **2012**, pages 133-213.

Selected Conference Presentations

1. "Metal-organic frameworks as nanoreactors for reversible de/rehydrogenation reactions", V. Stavila, R. Bhakta, T. Alam, E.H. Majzoub, M.D. Allendorf. *245th American Chemical Society National Meeting*, New Orleans, LA, **2013**.
2. "Integrating MOFs with MEMS devices for sensing", M.D. Allendorf, J.M. Denning, J.A. Greathouse, A.L. Robinson, T.R. Zeitler, V. Stavila. *245th American Chemical Society National Meeting*, New Orleans, LA, **2013**.
3. "Metal-Organic Frameworks as Scaffolds for Reversible Complex Metal Hydrides", V. Stavila, R. Bhakta, T. Alam, E.H. Majzoub, M.D. Allendorf. *244th American Chemical Society National Meeting*, Philadelphia, PA, **2012**.
4. "Fabrication of MOF Thin Films for Chemical Sensing", V. Stavila, J. Volponi, K. Leung, A.L. Robinson, I. Ellern, P.J. Hesketh, M.D. Allendorf. *243rd American Chemical Society National Meeting*, San Diego, CA, USA, **2012**.
5. "Improvement of Hydrogen Storage Properties of Complex Metal Hydrides Through Hydridic-Protic Interactions", V. Stavila. *19th World Hydrogen Energy Conference*, Toronto, Canada, **2012**.
6. "Hydridic-protic interactions in complex metal hydrides", V. Stavila, W. Luo, M. E. Majzoub, R. Behrens, L. Klebanoff. *242nd American Chemical Society National Meeting*, Denver, CO, USA, **2011**.
7. "Complex metal hydrides for hydrogen storage applications", V. Stavila, (Invited talk). *Energy Storage and Intermittent Renewable Energy*, Santa Clara, CA, USA, **2010**.
8. "Hydrogen storage in alkali and alkaline earth borohydrides: Probing the role of intermediate species", V. Stavila, R.J. Newhouse, S.-J. Hwang, M. Ulutagay-Kartin, J.-H. Her, T.J. Udovic (Invited talk). *239th American Chemical Society National Meeting*, San Francisco, CA, USA, **2010**.
9. "Catalyzed magnesium borohydride: Hydrogen desorption and rehydrogenation", R. Newhouse, V. Stavila, S. Hwang, J. Zhang. *239th American Chemical Society National Meeting*, San Francisco, CA, USA, **2010**.
10. "Factors Affecting Hydrogen Release from Metal Borohydrides" V. Stavila, E.H. Majzoub, S.-J. Hwang, R.J. Newhouse, M. Ulutagay-Kartin, W. Luo, J.G. Cordaro, T.J. Udovic. Oral Presentation. *Materials Challenges in Alternative and Renewable Energy*, Cocoa Beach, Florida, USA, **2010**.
11. "Hydrogen multinuclear high resolution NMR Studies of dodecaborate intermediate of borohydride-based hydrogen storage systems", S.-J. Hwang, C. Ahn, J. W. Reiter, J. A. Zan, V. Stavila, J. J. Vajo. Oral Presentation. *Materials Challenges in Alternative and Renewable Energy*, Cocoa Beach, Florida, USA, **2010**.

12. "Combining first principles and thermodynamic calculations to predict evolution of impurity gases from metal hydrides", M. Allendorf, V. Stavila, K.C. Kim, D.S. Sholl (Invited talk). *239th American Chemical Society National Meeting*, San Francisco, CA, USA, **2010**.
13. "Alkali and alkaline-earth dodecahydro-closo-dodecaborates and their relevance to hydrogen storage" V. Stavila, J.-H. Her, M. Ulutagay-Kartin, W. Zhou, S.-J. Hwang, Ch. Kim, T.J. Udovic. Oral Presentation. *238th American Chemical Society National Meeting*, Washington, DC, USA, **2009**.
14. "Crystal structures of $M_nB_{12}H_{12}$ ($n=1,2$) compounds – possible intermediate species in the decomposition of $M(BH_4)_n$ " J.-H. Her, V. Stavila, M. Yousufuddin, W. Zhou, S.S. Jalisatgi, E. Rönnebro, T.J. Udovic. Oral Presentation, accepted. *American Crystallographic Association Meeting*, Toronto, Canada, **2009**.
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