

PUBLICATIONS by AREA

Cathodes

- Alison Wustrow, Baris Key, Baris, Patrick Phillips, Niya Sa, Andrew Lipton, Robert Klie, John Vaughey, K.R. Poeppelmeier "Synthesis and Characterization of MgCr₂S₄ Thiospinel as a Potential Magnesium Cathode", *Inorg. Chem.*, **57**, 8634–8638 (2018)
- Allison Wustrow, Justin C. Hancock, Jared T. Incorvati, John T. Vaughey, K. R. Poeppelmeier "Lithium Diffusivity and the Role of Fluoride Incorporation in layered Molybdenum Oxide" *J. Electrochem Soc.*, submitted, 2018.
- K. L. Hawthorne, C. Liao, K.-C. Lau, D. L. Proffit, J. T. Vaughey "Magnesium-Ion Cathode Materials based on the Barite Structure" *ECS Trans.*, **85**, 193-197 (2018)
- J. Vaughey, Lead Editor, ECS Transactions, 81(5), "Proceedings of the 233rd Electrochemical Society - Lithium-Ion Batteries and Beyond" Electrochemical Society, Pennington, NJ (2018).
<http://ecst.ecsdl.org/content/81/05>
- Binghong Han, Baris Key, John T. Vaughey, Fulya Dogan "Use of Non-Aqueous Solvents to Form Nanoscale Alumina-based Coatings on Nickel-Rich Cathodes", ACS Applied Materials and Interfaces, submitted, 2018.
- Binghong Han, Baris Key, Saul H. Lapidus, Juan C. Garcia, Hakim Iddir, John T. Vaughey, Fulya Dogan "From Coating to Dopant: How Transition Metal Composition Effects Alumina Coatings on Nickel-Rich Cathodes", ACS Applied Materials and Interfaces, 9, 41291-41302 (2017).
- Binghong Han, Tadas Paulauskas, Baris Key, Cameron Peebles, J.-S. Park, J. T. Vaughey, Fulya Dogan "Understanding the Role of Temperature and Cathode Composition on Interface and Bulk: Optimizing Aluminum Oxide Coatings for Li-ion Cathodes" ACS Applied Materials and Interfaces, 9, 14769-14778 (2017).
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- Fulya Dogan, John T. Vaughey, Hakim Iddir, and Baris Key "Direct Observation of Lattice Aluminum Environments in Li-ion Cathodes NCA and Al-doped NMC via ²⁷Al MAS NMR Spectroscopy" *ACS Applied Materials and Interfaces*, 8, 16078 (2016).
- Albert L Lipson, Sang-Don Han, Soojeong Kim, Baofei Pan, Niya Sa, Chen Liao, Timothy T Fister, Anthony K Burrell, John T Vaughey, Brian J Ingram, "Nickel Hexacyanoferrate: a Versatile Intercalation Host for Divalent Ions from Nonaqueous Electrolytes" *J Power Sources*, 325, 646-652 (2016).
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PRESENTATIONS

Cathodes

- S. Kim, S. D. Han, S. Tepavcevic, J. T. Vaughey, P. Fenter, and T. T. Fister "Study of the Zn Insertion into Nanostructured MnO₂ in Non-Aqueous Metal Batteries Using in-Situ X-Ray Absorption Spectroscopy" 232st Meeting of the Electrochemical Society, National Harbor, MD, October 2017.
- S. D. Han, P. Senguttuvan, S. Tepavcevic, N. N. Rajput, X. Qu, S. Kim, H. D. Yoo, A. L. Lipson, H. Wang, P. J. Phillips, R. F. Klie, B. Key, B. J. Ingram, J. Cabana, T. T. Fister, K. A. Persson, N. M. Markovic, C. Johnson, A. K. Burrell, J. T. Vaughey "Case Studies on Nonaqueous Zn²⁺ Ion Chemistry with a Reversible Intercalation Cathodes for the Development of Multivalent Metal Batteries" 232st Meeting of the Electrochemical Society, National Harbor, MD, October 2017.
- N. Sa, Y. Ren, A. Burrell, J. T. Vaughey "Electrolyte and Cathode Compatibility for Rechargeable Mg Ion Batteries", 232st Meeting of the Electrochemical Society, National Harbor, MD, October 2017.
- J. T. Vaughey, B. Key, D. L. Proffit, N. Sa, B. J. Ingram, A. L. Lipson, K. Poeppelmeier, J. T. Inconvati "Designing New Magnesium-Based Cathode Materials" 232st Meeting of the Electrochemical Society, National Harbor, MD, October 2017.
- Wustrow, J. T. Inconvati, J. Hancock, J. T. Vaughey, K. Poeppelmeier "Developing Synthetic Routes to Magnesium Battery Cathodes" 232st Meeting of the Electrochemical Society, National Harbor, MD, October 2017.
- J. Vaughey, F. Dogan, B. Han, H. Ibbir, G. Chen, R. Ruther, G. Veith, D. Dees "Materials for High Energy High Voltage Batteries" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2017.
- H. Wang, N. Sa, M. He, J. T. Vaughey, L. F. Nazar, M. Balasubramanian, B. Key, and K. G. Gallagher "An NMR Perspective on the Speciation Process in Lithium Sulfur Batteries" 231st Meeting of the Electrochemical Society, New Orleans, LA, May 2017.
- Binghong Han, F. Dogan, J. Vaughey "Effects of Sintering Temperature and Cathode Composition on Al₂O₃ Coatings of Lithium-Ion Cathodes" 231st Meeting of the Electrochemical Society, New Orleans, LA, May 2017.
- Binghong Han, F. Dogan, J. Vaughey "Characterizations of Al₂O₃ Coatings on Lithium-Ion Cathodes- Effects of Cathode Compositions and Annealing Temperatures" Materials Research Society, Phoenix, AZ April, 2017.
- S. D. Han, P. Senguttuvan, S. Kim, A. L. Lipson, S. Tepavcevic, B. J. Ingram, T. T. Fister, C. Johnson, J. T. Vaughey "Case Studies on Non-Aqueous Zn Ion Systems to Develop Multivalent Ion Batteries" Pacific Rim Meeting of the Electrochemical Societies, Honolulu, HI, October 2016.
- H. Wang, B. Key, N. Sa, M. He, J. T. Vaughey, L. F. Nazar, M. Balasubramanian, K. G. Gallagher "NMR Perspective of Speciation Process in Lithium Sulfur Batteries" Pacific Rim Meeting of the Electrochemical Societies, Honolulu, HI, October 2016.
- Key, J. T. Vaughey, H. Wang, N. Sa, J. Inconvati, R. Bayliss, J. Cabana, K. Poeppelmeier, A. Burrell "Understanding Magnesiumation Mechanism and Cation Dynamics in Transition Metal Oxides for

Magnesium-Ion Batteries" Pacific Rim Meeting of the Electrochemical Societies, Honolulu, HI, October 2016.

- F. Dogan, J. T. Vaughey, H. Iddir, B. Key "Direct Observation of Lattice Aluminum Environments in Li-Ion Cathodes NCA and Al-Doped NMC Via ^{27}Al MAS NMR Spectroscopy" Pacific Rim Meeting of the Electrochemical Societies, Honolulu, HI, October 2016.
- J. Vaughey "New Cathode Materials for Beyond Lithium-Ion Energy Storage" Inorganic Chemistry Seminar, Purdue University, West Lafayette, IN, September 2016.
- Peebles, M. He, F. Dogan, A. A. Hubaud, J. T. Vaughey, C. Liao "Organosilane Cathode Coatings for High-Voltage Lithium Ion Batteries" 18th International Meeting on Lithium Batteries, Chicago, IL, USA, June 2016.
- J. Vaughey, F. Dogan, H. Ibbir, J. Croy, C. Liao, C. Peebles, D. Abraham, G. Veith, D. Dees "Materials for High Energy High Voltage Batteries" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2016.
- Peebles, F. Dogan, A. A. Hubaud, J. T. Vaughey, C. Liao "Organosilane Coatings for Ni-Rich High-Voltage Lithium Ion Batteries" 229th Meeting of the Electrochemical Society, San Diego, CA June 2016.
- Hubaud, F. Dogan, C. Peebles, C. Liao, J. Vaughey "Interfacial Stability of Ni-rich Layered Oxide Cathodes" IBA2016, Nantes, France, March 2016.
- Albert L. Lipson, Soojeong Kim, Danielle L. Proffit, Baofei Pan, Saul H. Lapidus, Chen Liao, Niya Sa, Timothy T. Fister, Anthony K. Burrell, John T. Vaughey, Brian J. Ingram "Demonstrating that Prussian Blue Analogues can Intercalate Mg, Ca, and Zn" Gordon Conference on Batteries, Ventura, CA, February 2016.
- Fulya Dogan, J. - S. Park, J. Croy, B. Key, J. T. Vaughey "Investigation of Aluminum Environments in Al_2O_3 coated cathodes: The Effect of Cathode Composition on Electrochemical Performance and Aluminum Local Environments" Gordon Conference on Batteries, Ventura, CA, February 2016.
- N. Sa, A. K. Burrell, T. L. Kinnibrugh, H. Wang, B. Key, K. W. Chapman, J. T. Vaughey, D. L. Proffit, P. J. Chupas, and T. Fister "A Study of Mg Intercalation Mechanism of a Prospective Mg Full Cell Design" 228th Meeting of the Electrochemical Society, Phoenix, AZ, October, 2015.
- L. Proffit, Albert Lipson, Baofei Pan, B. J. Ingram, Miao Liu, Anubhav Jain, Kristin Persson, J. Vaughey "New Intercalation Cathodes for Ca-Ion Batteries" 20th International Conference on Solid State Ionics, Keystone, CO, June 2015.
- D. L. Proffit, C. Kim, P. Senguttuvan, V. Duffort, L. F. Nazar, J. Cabana, A. K. Burrell, J. T. Vaughey, and B. Key " ^{25}Mg NMR Studies of Mg-Ion Battery Materials" 227th Meeting of the Electrochemical Society, Chicago, IL May, 2015.
- Dogan, J. Vaughey, H. Iddir " ^{29}Al MAS-NMR Studies of Alumina Coated NMC Cathodes: Role of Annealing Time and Temperature on Electrochemical Performance" DOE-USDrive Workshop, Detroit, MI, November, 2015.
- K. Burrell, J. Vaughey, A. Hubaud, F. Dogan, H. Ibbir, J. Zhang, C. Liao, A. Tornbein, C. S. Johnson, A. Vu "Materials for High Energy High Voltage Batteries" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2015.
- Hao Wang, Danielle Proffit, C. J. Kim, P. Senguttuvan, V. Duffort, L. F. Nazar, Jordi Cabana, A.K. Burrell,

J.T. Vaughey, Baris Key "25Mg NMR Studies of Mg-ion Battery Materials" The 56th Experimental Nuclear Magnetic Resonance Conference (ENC-2015), Pacific Grove, CA, April, 2015.

- Danielle Proffit, Albert Lipson, Baofei Pan, Sang-Don Han, Timothy Fister, Zhenxing Feng, Baris Key, Brian Ingram, Anthony Burrell, and John Vaughey "Side Reactions and Intercalation Electrode Materials for Multivalent Batteries" Materials Research Society Meeting, San Francisco, CA, April, 2015.
- D. Proffit, A. Lipson, B.J. Ingram, A.K. Burrell, J.T. Vaughey "Development of Oxide-based Cathode Materials for Magnesium Batteries" Beyond Lithium Ion VII, Argonne, IL, June 2014
- D. Proffit, A. Lipson, B. Ingram, J. Vaughey 'Searching for New Cathode Materials for Multivalent Batteries' Gordon Conference on Batteries, Ventura, CA, March 2014.
- K. Burrell, J. T. Vaughey, D. Proffit, N. Sa, B. Key, C. Liao, K. Poeppelmeier, L. Fuoco, J. Incorvati, B. J. Ingram, A. Lipson, G. Ceder, M. Rasul, D. Prendergast, S. Wan, F. Thoele, P. Fenter, X. Feng, T. Fister, J. Cabana, C. Kim, K. Persson, M. Liao "Recent Developments in the Search for New Multivalent Cathodes" IBA2014, Brisbane, Australia, March, 2014.
- Key, F. Dogan, J. Croy, M. Slater, M. Balasubramanian, Y. Ren, C. S. Johnson, J. Vaughey "Solid State NMR Studies of Li-Rich NMC Cathodes: Investigating Structure Change and Its Effect on Voltage Fade Phenomenon" 224th Meeting of the Electrochemical Society, San Francisco, CA October, 2013.
- M. D. Donakowski, A. Gorne, J. T. Vaughey, K.R. Poeppelmeier "Electrochemical Analyses and Comparison of the Double Wolframite $\text{AgNa}(\text{VO}_2\text{F}_2)_2$ in Lithium and Sodium-ion Batteries" 246th Meeting of the American Chemical Society, Indianapolis, IN, Sept 2013.
- K. Burrell, A. Abouimrane, D. Abraham, K. Amine, M. Balasubramanian, J. Bareño Garcia-Ontiveros, I. Belharouak, R. Benedek, I. Bloom, Z. Chen, D. Dees, K. Gallagher, H. Iddir, B. Ingram, C. Johnson, W. Lu, D. Miller, Y. Qin, Y. Ren, M. Thackeray, L. Trahey, J. Vaughey "Addressing the Voltage Fade Issue with Li-Mn Rich Oxide Cathode Materials" Lithium-Ion Battery Discussion Group (LIBD-6), Arcachon, France, June 2013.
- K. Burrell, A. Abouimrane, D. Abraham, K. Amine, M. Balasubramanian, J. Bareño, I. Belharouak, R. Benedek, I. Bloom, Z. Chen, D. Dees, K. Gallagher, H. Iddir, B. Ingram, C. Johnson, W. Lu, D. Miller, Y. Qin, Y. Ren, M. Thackeray, L. Trahey, J. Vaughey "Addressing the Voltage Fade Issue with Li-Mn Rich Oxide Cathode Materials" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2013.
- J.T. Vaughey, B. Key, F. Dogan "Solid State NMR Studies and Local Structure of Voltage Fade Materials" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2013.
- C.S. Johnson, J.T. Vaughey "Twenty Years of Battery Research with Mike Thackeray at Argonne" IBA2013 Thackeray Symposium, Barcelona, Spain, March 2013.
- Key, F. Dogan, J. Vaughey, M. Slater, J. Croy, K. Gallagher, C.S. Johnson, Y. Ren "NMR Studies and Local Structure of Voltage Fade Electrodes" DOE-USDrive Workshop, Argonne, IL, January, 2013.
- Michael M. Thackeray, Mahalingam Balasubramanian, Tony Burrell, Maria Chan, Jason Croy, Larry Curtiss, Jeff Greeley, Chris Johnson, Sun-Ho Kang, K-C. Lau, Naba Karan, Donghan Kim, Jun Lu, Yang Ren, Lynn Trahey, John Vaughey "Recent Advances in Manganese- and Iron-Based Electrodes for Lithium Batteries" IBA-Pacific Power Sources Symposium, Kona, Hawaii, January, 2012.
- Lynn Trahey, Naba K. Karan, Christopher S. Johnson, John T. Vaughey, Mali Balasubramanian, Michael

M. Thackeray "Electrocatalysts and Air-Electrodes for Li-Air Batteries" 218th Meeting of the Electrochemical Society, Montreal, Quebec, Canada, March, 2011.

- J. T. Vaughey "Primary Lithium Batteries for Medical Applications" Advanced Materials Research Institute, University of New Orleans, March, 2011.
- L. Trahey, C. S. Johnson, J. T. Vaughey, N. Karan, M. Balasubramanian, S.-H. Kang, M. M. Thackeray "Electrocatalysts for Li-Air Batteries" Future State Seminar on Energy Storage, Argonne, IL, November, 2010.
- L. Trahey, N. Karan, M. Chan, K. C. Lau, C. S. Johnson, J. T. Vaughey, Y. Ren, J. Greely, L. Curtiss, M. Balasubramanian, M. M. Thackeray "Moving Away from Conventional Lithium-Ion Battery Electrodes - Recent Materials Developments at Argonne National Laboratory" Scalable Energy Storage and Beyond Li-Ion: Materials Perspectives, Oak Ridge National Laboratory, Oak Ridge, TN, October, 2010.
- L. Trahey, C. S. Johnson, J. T. Vaughey, N. Karan, M. Balasubramanian, S.-H. Kang, M. M. Thackeray "Electrocatalysts for Li-Air Batteries" NEDO-Argonne Meeting on Lithium-Ion Batteries, Argonne, IL, October, 2010.
- M. M. Thackeray, M. Balasubramanian, R. Benedek, C. S. Johnson, S.-H. Kang, V. G. Pol, S. V. Pol, L. Trahey, J. T. Vaughey "Designing Anode and Cathode Materials to Counter the Performance Limitations of Li-Ion Batteries" 15th International Meeting on Lithium Batteries (IMLB), Montreal, Canada, June 2010.
- L. Trahey, C. S. Johnson, M. Balasubramanian, Sun-Ho Kang, J. T. Vaughey, S. V. Pol, M. M. Thackeray "Electrocatalyst Design Concepts for Li/Oxygen Cells: A Study of Li_5FeO_4 " 15th International Meeting on Lithium Batteries (IMLB), Montreal, Canada, June 2010.
- L. Trahey, C. S. Johnson, J. T. Vaughey, N. Karan, M. Balasubramanian, S.-H. Kang, M. M. Thackeray "Electrocatalysts for Li-Air Batteries" Symposium on Electrochemical Energy Storage Beyond Lithium-Ion: Computational Perspectives, Argonne National Laboratory, Argonne, IL, May 2010.
- Michael M. Thackeray, Mahalingam Balasubramanian, Christopher S. Johnson, Sun-Ho Kang, Swati Pol, Vilas Pol, Lynn Trahey, John T. Vaughey, Dongwon Shin and Chris Wolverton "Advances in the Design of Anode and Cathode Materials for Lithium Batteries" The 27th International Battery Seminar & Exhibit for Primary & Secondary Batteries, Fort Lauderdale, FL, March 2010
- M. Thackeray, C. Johnson, S. Kang, V. Pol, L. Trahey, J. Vaughey, H. Kung, D. Shin, C. Wolverton, L. Hardwick, P. G. Bruce "Designing Advanced Anode and Cathode Materials for Lithium-Ion Batteries" 213th Meeting of the Materials Research Society, Boston, MA. November, 2009.
- Sun-Ho Kang, Carmen M. Lopez-Rivera, John Vaughey, Dongwon Shin, Christopher Wolverton, Michael M. Thackeray "Improved Rate Capability of High-Capacity (x) Li_2MnO_3 (1-x) LiMO_2 Electrodes by Li-Ni- PO_4 Surface Treatment" 216th Meeting of the Electrochemical Society, Vienna, Austria, October, 2009.
- J. T. Vaughey, C. S. Johnson, S.-H. Kang, M. M. Thackeray "High Capacity Manganese Based Electrodes for Lithium-Ion Batteries" Advanced Materials Research Institute, University of New Orleans, February, 2009.
- Gregory A. Becht, John T. Vaughey, Robin L. Britt, Cassandra T. Eagle, Shiou-Jyh Hwu "Ion-Exchange and Subsequent Li-Insertion Chemistry of a New Family of Iron Phosphate Compounds Exhibiting Channeled Structures" 211th Meeting of the Materials Research Society, Boston, MA, November, 2008.
- M. M. Thackeray, R. Benedek, C. S. Johnson, S. Kang, V. Pol, L. Trahey, J. T. Vaughey "Designing

Structurally-Integrated Electrodes for Li-Ion Batteries" 1st International Conference on Advanced Lithium Ion Batteries for Automotive Applications, Argonne, IL September 2008.

- R. Benedek, J. T. Vaughey, M. M. Thackeray, A. van de Walle "Free Energy for Acid Promoted Reactions of Lithium-Ion Battery Cathodes: LiCoO_2 " 14th International Meeting on Lithium Batteries (IMLB), Tianjin, China, June 2008.
- J. T. Vaughey, C. S. Johnson, S.-H. Kang, M. M. Thackeray "High Capacity Manganese Based Electrodes for Lithium-Ion Batteries" 14th International Meeting on Lithium Batteries (IMLB), Tianjin, China, June 2008.
- M. M. Thackeray, C. S. Johnson, S.-H. Kang, J. T. Vaughey "The Need for New Lithium-Ion Battery Electrode Materials" 25th International Battery Seminar and Exhibition, Fort Lauderdale, FL, March, 2008.
- Gregory Becht, Robin Lee Britt, Cassandra Eagle, J. T. Vaughey, Shiou-Jyh Hwu "A Li^{+} -Ion Exchanged Open-Framework $\text{Fe}[\text{III}]$ Phosphate, $\text{Li}_9\text{Fe}_7[\text{PO}_4]_{10}$, Showing Improved Capacity as An Anode" Southeastern Regional Meeting of the American Chemical Society, Greenville, SC, USA, October 2007.
- Johnson, N. Li, C. Lefief, J. Kim, A. J. Kropf, J. T. Vaughey, M.M. Thackeray "Anomalous Capacity and Cycling Stability of $x \text{Li}_2\text{MnO}_3 - (1-x) \text{LiMO}_2$ Electrodes (M=Mn, Ni, Co) in Lithium Batteries at 50°C " 211th Meeting of the Electrochemical Society, Chicago, IL, USA, May 2007.
- C.S. Johnson, S. Odeen, J. T. Vaughey, S. H. Kang, M. M. Thackeray, S. A. Hackney, J. Bréger, C.P. Grey "Electrochemical Analysis and Characterization of Layered Spinel "Composite" Electrodes for Lithium-Ion Batteries" 210th Meeting of the Electrochemical Society, Cancun, Mexico, October, 2006.
- M. Thackeray, S. Kang, C. S. Johnson, J. Vaughey, S. Hackney "The Structural Complexity of Lithium Rich $\text{Li}_{1+x}(\text{Mn}_{0.5}\text{Ni}_{0.5})_{1-x}\text{O}_2$ and $\text{Li}_{1+x}(\text{Mn}_{0.33}\text{Co}_{0.33}\text{Ni}_{0.33})_{1-x}\text{O}_2$ Electrodes for Lithium Batteries" 210th Meeting of the Electrochemical Society, Cancun, Mexico, October, 2006.
- J. T. Vaughey, A. R. Armstrong, M. Holzaphel, P. Novak, C.S. Johnson, S. -H. Kang, M. M. Thackeray, P. G. Bruce "Structural Reorganization in Lithium-Rich Lithium-Ion Battery Cathode Materials" 2006 American Conference on Neutron Scattering, St. Charles, IL, USA, June, 2006.
- M. M. Thackeray, S.-H. Kang, C. S. Johnson, J. T. Vaughey, K. Amine "Preconditioned $x \text{Li}_2\text{MnO}_3$ or $(1-x) \text{LiMO}_2$ (M = Mn, Ni, Co) for Lithium Ion Cells" IMLB13 - the Thirteenth International Meeting on Lithium Batteries, Biarritz, France, June, 2006.
- K. R. Poeppelmeier, E. Sorensen, H. Izumi, J. T. Vaughey, T. Albrecht and C. L. Stern " $\text{Ag}_4\text{V}_2\text{O}_6\text{F}_2$: An Electrochemically Active and High Silver Density Phase" 209th Meeting of the Electrochemical Society, Denver, CO, May, 2006.
- Rebecca Ward, J. T. Vaughey, M. M. Thackeray "Olivine Composite Cathodes for Improved Lithium-Ion Battery Performance" American Association for the Advancement of Science Annual Meeting, St. Louis, MO, February, 2006.
- S. -H. Kang, N. Li, C. S. Johnson, J. T. Vaughey, K. Amine, M. M. Thackeray "The Effects of Acid Treatment on the Electrochemical Properties of $x \text{Li}_2\text{MnO}_3$ " $(1-x) \text{LiMO}_2$ Electrodes (M=Mn, Ni, Co) in Lithium Cells" International Battery Association - Hawaii Battery Conference, Waikoloa, HI, January, 2006.
- S. Johnson, S. Odeen, J. T. Vaughey, M. M. Thackeray, J. B?eger, C. P. Grey "Electrochemical Analysis and Characterization of Layered-Spinel 'Composite' Electrodes for Li-Batteries" 208th Meeting of the

Electrochemical Society, Los Angeles, CA, USA, October 2005.

- C.S. Johnson, S. Kang, J. Kim, N. Li, J. T. Vaughey, K. Amine, M. Thackeray "Science and Technology of Layered-Layered Composite Cathodes for Li-Ion Batteries" Second International Conference on Polymer Batteries and Fuel Cells (PBFC-2), Las Vegas, NV, USA, June 2005.
- S. Johnson, M. Balasubramanian, S. Odeen, C. Lefief, N. Li, J. T. Vaughey, M. M. Thackeray, S. Hackney "Composite-Structured Mn-Based Electrodes for Li-Ion Batteries" 56th Annual Meeting of the International Society of Electrochemistry, Busan, South Korea, May, 2005.
- M. M. Thackeray, C. S. Johnson, N. Li, J. T. Vaughey, S-H. Kang, M. Balasubramanian, S. A. Hackney "Layered-Spinel Composite Cathodes for Li-Ion Batteries" Lithium Ion Battery Discussion Group (LIBD-3) - Electrode Materials, Arachon, France, May 2005.
- M. M. Thackeray, C. S. Johnson, N. Li, J. T. Vaughey, S-H. Kang, K. Amine, S. A. Hackney "Recent Advances in Manganese-based Composite Cathodes for Li-Ion Batteries" The 22nd International Battery Seminar and Exhibit for Primary & Secondary Batteries, Fort Lauderdale, FL, March, 2005.
- Johnson, C.S., X. Qian, J. T. Vaughey, M. M. Thackeray, and A. J. Kropf "X-ray Absorption Spectroscopy (XAS) Characterization of 5 V $\text{Li}[\text{Co}_x\text{Ni}_{0.5-x}\text{Mn}_{1.5}]\text{O}_4$ ($x=0, 0.1, 0.2, 0.4, \text{ and } 0.5$) Spinel Cathodes for Lithium Batteries", Advanced Photon Source Review, February, 2005.
- S. Johnson, J. -S. Kim, J. T. Vaughey, S.A. Hackney, W. Yoon, C. P. Grey, M. M. Thackeray "Electrochemical and Structural Properties of $(x)\text{Li}_2\text{M}'\text{O}_3(1-x)\text{LiMn}_{0.5}\text{Ni}_{0.5}\text{O}_2$ Electrodes for Lithium-ion Batteries ($\text{M}'=\text{Ti, Mn, } 0 < x < 0.3$)" Gordon Conference on Bioelectrochemistry, New London, CT, July 2004.
- J. T. Vaughey, C. D. May, E. Sorensen, H. K. Izumi, K. R. Poeppelmeier "New Silver-Based Cathodes for Medical Batteries" Gordon Conference on Solid State Chemistry, New London, NH, July 2004.
- M.M. Thackeray, C. S. Johnson, J. S. Kim, J. T. Vaughey "Stabilization of Layered and Spinel Electrodes for Lithium Batteries", Gordon Conference on Solid State Chemistry, New London, NH, July 2004.
- C.S. Johnson, K. Lauze, J.-S. Kim, J. T. Vaughey, S. A. Hackney, K. A. Walz, W. A. Zeltner, M. A. Anderson, M. M. Thackeray, W. Yoon, C. P. Grey, T. Sarakonsri, N. Li, R. Benedek, R. Prasad, A. J. Kropf "Chemistry of Advanced Lithium Batteries" IMLB12 - the Twelfth International Meeting on Lithium Batteries, Nara, Japan, June, 2004.
- J. S. Kim, C. S. Johnson, J. T. Vaughey, S. A. Hackney, W. Yoon, C. P. Grey, M.M. Thackeray "Electrochemical and Structural Properties of $x \text{Li}_2\text{MO}_3(1-x)\text{LiMn}_{0.5}\text{Ni}_{0.5}\text{O}_2$ Electrodes for Lithium Batteries ($\text{M}=\text{Ti, Mn, } 0 < x < 0.3$)", IMLB12 - the Twelfth International Meeting on Lithium Batteries, Nara, Japan, June, 2004.
- C.S. Johnson, K. Lauze, J.S. Kim, J. T. Vaughey, S.A. Hackney, K. A. Walz, W. A. Zeltner, M.A. Anderson, M.M. Thackeray "Metal -Oxide Coated LiMn_2O_4 Spinel Electrodes for Lithium Battery Applications" IMLB12 - the Twelfth International Meeting on Lithium Batteries, Nara, Japan, June, 2004.
- M.M. Thackeray, C. S. Johnson, J. S. Kim, J. T. Vaughey "Stabilization of Layered and Spinel Electrodes for Lithium Batteries", IMLB12 - the Twelfth International Meeting on Lithium Batteries, Nara, Japan, June, 2004.
- C.S. Johnson, J. T. Vaughey, A. J. Kropf, X. Qian, R. Benedek, M. M. Thackeray "High Voltage $\text{Li}[(\text{Ni}_{0.5-x}\text{Co}_x)\text{Mn}_{1.5}]\text{O}_4$ Spinel Oxide Cathodes for Lithium Batteries", 13th APS Users Meeting, Argonne, IL, May 2004.

- M.M. Thackeray, C. S. Johnson, J. S. Kim, J. T. Vaughey, S. A. Hackney, W. Yoon, C. P. Grey "Stabilization of Layered Electrodes for Lithium Batteries", International Battery Association Battery and Fuel Cell Materials Symposium, Graz, Austria, April, 2004.
- J. -S, Kim, C. S. Johnson, J. T. Vaughey, M. M. Thackeray "Preconditioned Layered Electrodes for Lithium Batteries" International Battery Association Battery and Fuel Cell Materials Symposium, Graz, Austria, April, 2004.
- C.S. Johnson, J. T. Vaughey, A. J. Kropf, X. Qian, R. Benedek, M. M. Thackeray "High Voltage $\text{Li}[(\text{Ni}_{0.5-x}\text{Co}_x)\text{Mn}_{1.5}]\text{O}_4$ ($0 < x < 0.5$) Spinel Oxide Cathodes for Lithium Batteries", International Battery Association Battery and Fuel Cell Materials Symposium, Graz, Austria, April, 2004.
- M. Hudson, J. T. Vaughey "New Approaches to High Power Medical Batteries" National Biomedical Research Conference for Minority Students, San Diego, CA, October 2003.
- J. S. Kim, J. T. Vaughey, C. S. Johnson, M. M. Thackeray "Stabilization of LiMn_2O_4 Spinel Electrodes for Lithium Batteries" 204th Meeting of the Electrochemical Society, Orlando, FL, October, 2003
- Jeremy Kropf, C. S. Johnson, J. T. Vaughey, M. M. Thackeray "XAFS Analysis of Layered $\text{LiMn}_{0.5}\text{Ni}_{0.5}\text{O}_2$ ($0 < x < 2$) Electrodes for Lithium Batteries", XAFS XII: The 12th International Conference on X-Ray Absorption Fine Structure Spectroscopy, Malmö, Sweden, June 2003.
- J. T. Vaughey, C.S. Johnson, X. Qian, M. M. Thackeray "Spinel-Spinel Electrode Couples for Lithium Ion Batteries" 14th International Conference on Solid State Ionics, Monterey, CA, June, 2003.
- J. S. Kim, J. T. Vaughey, C. S. Johnson, M. M. Thackeray "Stabilization of LiMn_2O_4 Spinel Electrodes for Lithium Batteries" International Conference on Polymer Batteries and Fuel Cells, Jeju Island, Korea, June, 2003
- J. Kropf, C. S. Johnson, J. T. Vaughey, M. M. Thackeray "Metal Oxide Electrode Multi-Electron Transfer Processes" 12th Users Meeting for the Advanced Photon Source, Argonne, IL, April, 2003
- Christopher S. Johnson, Jeom-Soo Kim, John T. Vaughey, Daniel Abraham, Nancy Dietz, Walter Zeltner, Marc A. Anderson, Michael M. Thackeray "Stabilized Spinel and Layered Electrodes for Li-Ion Cells" LIBD-2003: Lithium Battery Discussion on Electrode Materials, Bordeaux-Arachon, France, September, 2003.
- C.S. Johnson, J.S. Kim, A.J. Kropf, A. J. Kahaian, J. T. Vaughey, L. Fransson, K. Edstrom, M.M. Thackeray "Redox Reactions of Mixed Metal Layered Oxide Cathodes: A Study of $\text{Li}_x[\text{Mn}_{0.5}\text{Ni}_{0.5}]\text{O}_2$ ($0 < x < 2$)" International Battery Association- Hawaii Battery Conference 2003 Meeting, Waikoloa, HI, January 2003.
- J. T. Vaughey, J.S. Kim, C. S. Johnson, M. M. Thackeray "Elevated Temperature Performance of $\text{LiMn}_{2-x}\text{MxO}_4$ Electrodes (M = Mg, Al, Zn) as a Function of Tetrahedral-site Occupancy" 202nd Meeting of the Electrochemical Society, Salt Lake City, UT October, 2002.
- J.S. Kim, C. S. Johnson, J. T. Vaughey, A. J. Kropf, M. Thackeray "Electrochemical Evaluation of $(1-x)\text{Li}_2\text{TiO}_3$ or $x\text{Li}(\text{Mn}_{0.5}\text{Ni}_{0.5})\text{O}_2$ ($0 < x < 0.31$) Electrodes for Lithium Batteries" 202nd Meeting of the Electrochemical Society, Salt Lake City, UT October, 2002.
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- C.S. Johnson, J. Vaughey, M. Thackeray "Cycling Performance of Stabilized Alpha Manganese Dioxide

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- Y. Shao-Horn, S. A. Hackney, C. S. Johnson, A. J. Kahaian, K. Kepler, E. Skinner, J. T. Vaughey, M. Thackeray "Stability of Spinel, Orthorhombic, and Layered Lithium Manganese Oxides" International Battery Association Symposium - IBA2000, Argonne National Laboratory, May 2000.
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- Christopher S. Johnson, Arthur J. Kropf, Michael M. Thackeray, John T. Vaughey "In Situ Synchrotron Spectroscopy of Lithium Battery Positive Electrode Materials" 191st Meeting of the Materials Research Society, Boston, December, 1998.
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- C.S. Johnson, J. T. Vaughey, M.M. Thackeray, T.E. Bofinger, and S.A. Hackney "Layered Lithium-Manganese Oxide Electrodes Derived from Rock Salt Li_xMnyO_z ($x+y=z$) Precursors", 194th Meeting of the Electrochemical Society, Boston, October, 1998
- M. M. Thackeray, K. D. Kepler, J. T. Vaughey, A. J. Kahaian, C.S. Johnson, Y. Shao-Horn, S. A. Hackney "Composite Electrodes for Lithium Batteries" 12th IBA Battery Materials Symposium, Annecy, France, September, 1998
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- J. T. Vaughey "Synthesis, Structure, and Properties of a Variety of New Layered Materials", Chemical Technology Division, Argonne National Laboratory, Argonne, IL, January, 1997.
- J. T. Vaughey "Vanadium Phosphate: A Bridge between Chemistry and Engineering", Inorganic Seminar, Union College, February, 1997.
- J. T. Vaughey "New Vanadium Framework Structures based on Selenite and Phosphate Anions", Inorganic Seminar, University of Houston, October, 1993.
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Anodes

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- A.K. Burrell, C. Ban, N. Neale, G. Veith, R. Ruther, J. Vaughey, N. Sa, B. Key, R. Kostecki, P. Ross "Fundamental Studies of Silicon-based Electrodes for Li-Ion Batteries - SEISta Program" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2017
- J. Vaughey "Role of the Transition Metal in Intermetallic Anodes" 18th International Meeting on Lithium Batteries, Chicago, IL, USA, June 2016.
- T. T. Fister, S. D. Han, S. Kim, J. T. Vaughey, A. A. Hubaud, P. Fenter, J. Esbenshade, K. E. Lundberg, A. A. Gewirth "Kinetics of Alloying and Deposition in Multivalent Battery Anodes Using Real-Time X-Ray Diffraction" 18th International Meeting on Lithium Batteries, Chicago, IL, USA, June 2016.
- H. Wang, N. Sa, D. L. Proffit, P. Senguttuvan, C. Kim, J. Cabana, K. Poepelmeier, T. L. Kinnibrugh, K. W. Chapman, A. K. Burrell, J. T. Vaughey, and B. Key "25 Mg NMR Studies of Mg-Ion Battery Materials" 228th Meeting of the Electrochemical Society, Phoenix, AZ, October, 2015.
- J. Vaughey, F. Dogan, A. Hubaud, D. Schroeder "Side Reactions and Cycling Efficiency with Silicon Electrode Surfaces" 228th Meeting of the Electrochemical Society, Phoenix, AZ, October, 2015.
- H. Wang, N. Sa, A. K. Burrell, J. T. Vaughey, and B. Key "Solvation and Desolvation Phenomenon and in Situ NMR Studies on the Stripping/Plating of Magnesium Metal in Magnesium Batteries" 228th Meeting of the Electrochemical Society, Phoenix, AZ, October, 2015.
- F. Dogan, A. A. Hubaud, Zhen Zhen Yang, D. L. Proffit, D. J. Schroeder, J. Vaughey "Reactions at Silicon Electrode Surfaces" 20th International Conference on Solid State Ionics, Keystone, CO, June 2015.
- C. God, A.K. Burrell, B. Ingram, K. Kapper, C. Lenardt, S. Koller, J. T. Vaughey "Alternatives for Magnesium Metal Anodes - Intercalation Materials as Negative Electrodes for Rechargeable Magnesium-Ion Batteries" 227th Meeting of the Electrochemical Society, Chicago, IL May, 2015.
- A.A. Hubaud, D. J. Schroeder, Z. Yang, F. Dogan, and J. T. Vaughey "Interfacial Study of the Role of SiO₂ on Si Anodes Using Electrochemical Quartz Crystal Microbalance" 227th Meeting of the Electrochemical Society, Chicago, IL May, 2015.
- J.T. Vaughey, L. Trahey, F. Dogan "Novel Anode Materials" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2014.
- F. Dogan, D. Sanjeewa, L. Trahey, J. Vaughey "Three-Dimensional Silicon Anode Architectures via Electrodeposition on Copper Foam Current Collectors" 224th Meeting of the Electrochemical Society, San Francisco, CA October, 2013.
- Lynn Trahey, Fikile R. Brushett, Zhenzhen Yang, Xianghui Xiao, Michael M. Thackeray, John T. Vaughey "Microbalance and Microtomographic Analysis of Rechargeable Battery Electrodes", SEM 2013 Annual Conference & Exposition on Experimental and Applied Mechanics, Lombard, IL, June 2013.
- B. J. Ingram, D. Schroeder, S. Neuhold, A. Hubaud, B. Key, J. Vaughey "New Protection Strategies for

Lithium Metal" Beyond Lithium V, Berkeley, CA, June, 2012.

- J.T. Vaughey, L. Trahey, F. Dogan "Novel Anode Materials: Three Dimensional Architectures" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2013.
- L. Trahey, F. Brushett, B. Blaiszik, V. Rose, R. Winarski, X. Xiao, C. Johnson, J. Vaughey, and M. Thackeray "Synchrotron Tomography of Porous Lithium-Ion Battery Anodes" 221st Meeting of the Electrochemical Society, Seattle, WA, May, 2012.
- J. Vaughey, L. Trahey, F. Dogan "Three Dimensional Battery Architectures" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2012.
- J. Vaughey, D. Schroeder, B. Key, B. Ingram, A. Hubaud, S. Neuhold "Lithium Metal Anodes", DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2012.
- J. Vaughey "Lithium Metal Anodes" Lithium-Air Battery Discussion Group, Argonne, IL, March, 2012.
- C. M. Lopez, J. T. Vaughey, D. W. Dees "Morphologically Dynamic Electrodes: Metallic Lithium and the Effect of Morphology on its Electrochemical Response" Powering Our Future 2012, Palacio Villaso, Vitoria-Gasteiz, Spain, March 2012.
- S. Neuhold, D. Schroeder, J.T. Vaughey "Silane-based Coatings for Lithium Metal Anodes" Gordon Conference on Battery Materials, Ventura, CA, March 2012.
- L. T. Trahey, T. Feckler, F. Brushett, M. Slater, C. S. Johnson, J. T. Vaughey, M. M. Thackeray "Electrodeposited Tin Electrodes for Electrochemical Energy Storage" Gordon Conference on Electrodeposition, Biddeford, ME, July 2012.
- F. Dogan, A. Hubaud, K. Johnson, J. Vaughey "Synthesis and Interfacial Characterization of Silicon Electrodes" BATT Workshop, Berkeley, CA, February, 2012.
- L. Trahey, F. Brushett, X. Xiao, J. Vaughey "X-Ray Tomography on 3D Microporous Tin-based Anodes" BATT Workshop, Berkeley, CA, February 2012.
- Xianghui Xiao, Fikile Brushett, Susanna Neuhold, Lynn Trahey, John Vaughey "High-Energy X-Ray Tomography on 3D Microporous Composite Anode of Lithium-Ion Batteries" Materials Science and Technology 2011, Columbus, OH, October 2011.
- J. T. Vaughey, D. J. Schroeder, S. Neuhold, C. M. Lopez "BATT-ILIRP: A New Program to Study Lithium Metal Anodes" POD Seminar Series, Office of Basic Energy Sciences, Germantown, MD, July, 2011.
- J. T. Vaughey, D. J. Schroeder, S. Neuhold, C. M. Lopez "Lithium Metal Anodes" Polymer Batteries and Fuel Cells-5 (PBFC5), Argonne, IL, July, 2011.
- Fulya Dogan, Lynn Trahey, Michael M. Thackeray, John T. Vaughey "Three-Dimensional Anode Architectures and Materials" 219th Meeting of the Electrochemical Society, Boston, MA, October, 2011.
- S. Neuhold, J. Vaughey, D. Schroeder "Organic Coatings for Lithium Metal: Synthesis and Characterization" BATT-ILIRP Workshop, Berkeley, CA, October, 2011.
- L. Trahey, F. Dogan, B. Johnson, J. Vaughey "Applications of X-Ray Tomography to Three Dimensional Anode Architectures" BATT Workshop, Berkeley, CA, August, 2011.
- J. Vaughey, L. Trahey "Metallic Copper Binders for Li-Ion Batteries: Synthesis and Characterization"

BATT Workshop, Washington DC, May, 2011.

- J. T. Vaughey, D. J. Schroeder, B. Key, S. Neuhold "BATT-ILIRP: Lithium Metal Anodes" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2011.
- Lynn Trahey, John T. Vaughey, Michael M. Thackeray "Porous Sn-based Electrode / Electrolyte Systems for Li-Ion Batteries" 216th Meeting of the Materials Research Society, San Francisco, CA, April, 2011.
- J. Vaughey, D. Schroeder, J. Zhang, S. Neuhold "Organic Coatings for Lithium Metal: Synthesis and Characterization" BATT-ILIRP Workshop, Berkeley, CA, March, 2011.
- J. Vaughey, C. M. Lopez, D. Dees "Morphological Changes on Cycling for the Lithium Metal Anode" Argonne-PNNL Joint Workshop on Energy Storage, Argonne National Laboratory, November, 2010.
- L. Trahey, J. Vaughey, A. Jansen, M. M. Thackeray "Binder Free Intermetallic Sn Electrodes" Argonne-PNNL Joint Workshop on Energy Storage, Argonne National Laboratory, November, 2010.
- J. T. Vaughey, C. M. Lopez, D. W. Dees "Morphological Evolution of Lithium Metal Anodes on Cycling" NEDO-Argonne Meeting on Lithium-Ion Batteries, Argonne, IL, October, 2010.
- Lynn Trahey, John T. Vaughey, Harold H. Kung, Michael M. Thackeray "Porous Copper Current Collectors for Advanced Anode Architectures" NEDO-Argonne Meeting on Lithium-Ion Batteries, Argonne, IL, October, 2010.
- John T. Vaughey "Lithium Ion Batteries: A Materials Chemistry Perspective" Departmental Colloquium, Department of Chemistry, Clemson University, Clemson, SC, September, 2010.
- Lynn Trahey, John T. Vaughey, Harold H. Kung, Michael M. Thackeray "Porous Copper Current Collectors for Advanced Anode Architectures" Gordon Conference on Electrodeposition, New London, NH, August, 2010.
- J. T. Vaughey, C. M. Lopez, L. Trahey, D. W. Dees, M. M. Thackeray "Lithium and Lithium-Ion Battery Anode Materials" Gordon Conference on Solid State Chemistry, New London, NH, August, 2010.
- M. M. Thackeray, J. T. Vaughey "Non-Carbonaceous Anodes" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2010.
- J. T. Vaughey, C. M. Lopez, D. Dees "Lithium Metal Anodes" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, June, 2010.
- Lynn Trahey, John T. Vaughey, Harold H. Kung, Michael M. Thackeray "Porous Copper Current Collectors for Advanced Anode Architectures" 15th International Meeting on Lithium Batteries (IMLB), Montreal, Canada, June 2010.
- Lynn Trahey, J. T. Vaughey, Harold H. Kung, Michael M. Thackeray "A Resistance Study on Electrodeposited Intermetallic Anodes for Li-Ion Batteries" 239th Meeting of the American Chemical Society, San Francisco, CA, March, 2010.
- J. T. Vaughey, C. Lopez, D. Dees "Recent Advances in Understanding Lithium Metal Anodes" Advanced Materials Research Institute, University of New Orleans, February, 2010.
- J. T. Vaughey, Dongwon Shin, Christopher Wolverton, Michael M. Thackeray "AuCu₃-Type Intermetallic Negative Electrode Materials for Lithium-Ion Batteries" 216th Meeting of the Electrochemical Society, Vienna, Austria, October, 2009.

- Lynn Trahey, J. T. Vaughey, Michael M. Thackeray "Composite Intermetallic Anodes with 3-D Architectures made by Electrodeposition" 216th Meeting of the Electrochemical Society, Vienna, Austria, October, 2009.
- Lynn Trahey, J. T. Vaughey, H. Kung, M. M. Thackeray "Better Anodes for Lithium-Ion Batteries" 2nd Annual Argonne Postdoctoral Research Symposium, Argonne National Laboratory, Argonne, IL, September, 2009.
- C. Lopez, J. T. Vaughey and D. Dees "Morphology-Performance Relationships in Metallic Lithium Anodes" 215th Meeting of the Electrochemical Society, San Francisco, CA, May, 2009.
- M. M. Thackeray, J. T. Vaughey, L. Trahey "Non-Carbonaceous Anodes" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2009.
- Andrew Jansen, J. T. Vaughey "Development of Improved Methods for Making Intermetallic Anodes" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2009.
- J. T. Vaughey, C. M. Lopez, D. Dees "Lithium Metal Anodes" DOE Hydrogen Program and Vehicle Technologies Program Annual Merit Review, Washington, DC, May, 2009.
- L. Trahey, J. T. Vaughey, H. Kung, M.M. Thackeray "Microporous vs. Planar Intermetallic Anodes for Lithium-Ion Batteries" 212th Meeting of the Materials Research Society, San Francisco, CA, April, 2009.
- L. Trahey, H. Kung, M.M. Thackeray, J. Vaughey "Electrodeposited, High Surface-Area Intermetallic Anodes for Lithium Ion Batteries" Northwestern Initiative for Sustainability and Energy Symposium, Evanston, IL, March 2009.
- Dongwon Shin, Christopher Wolverton, J. T. Vaughey, M. M. Thackeray "First-Principles Study of LaSn₃ as an Anode for Lithium-ion Batteries" American Physical Society Meeting, Pittsburgh, PA, March, 2009.
- L. Trahey, J. T. Vaughey, H. Kung, M. M. Thackeray "Electrodeposition and Testing of Microporous Copper-Tin Anodes for Lithium-Ion Batteries" 214th Meeting of the Electrochemical Society and the 2008 Pacific Rim Meeting on Electrochemical and Solid-State Science, Honolulu, HI October 2008.
- C. M. Lopez, J. T. Vaughey, D. Dees "Systematic Investigation of Morphological Transitions on Lithium Metal Anodes" 1st International Conference on Advanced Lithium Ion Batteries for Automotive Applications, Argonne, IL September 2008.
- L. Trahey, J. T. Vaughey, H. Kung, M. Thackeray "Electrodeposited Microporous Alloys for Battery Applications" 1st International Conference on Advanced Lithium Ion Batteries for Automotive Applications, Argonne, IL September 2008.
- J. T. Vaughey, A. N. Jansen, D. Dees, M. Thackeray "Variable Temperature Rate Studies of Anode Materials" 1st International Conference on Advanced Lithium Ion Batteries for Automotive Applications, Argonne, IL September 2008.
- L. Trahey, J. T. Vaughey, H. Kung, M. Thackeray "Microstructured Intermetallic Anodes for Lithium-Ion Batteries" Argonne National Laboratory Postdoctoral Research Symposium, Argonne, IL, September, 2008.
- C. M. Lopez, J. T. Vaughey, D. Dees "Systematic Investigation of Morphological Transitions on Lithium Metal Anodes" Argonne National Laboratory Postdoctoral Research Symposium, Argonne, IL, September, 2008.

- J. T. Vaughey, M. M. Thackeray "Intermetallic Negative Electrode Materials" 14th International Meeting on Lithium Batteries (IMLB), Tianjin, China, June 2008.
- M. M. Thackeray, J. T. Vaughey "Non-Carbonaceous Anodes" DOE Office of Vehicle Technologies Annual Merit Review, Bethesda, MD, February, 2008.
- J. T. Vaughey, C. M. Lopez, D. W. Dees "Lithium Metal Anodes" DOE Office of Vehicle Technologies Annual Merit Review, Bethesda, MD, February, 2008.
- M.M. Thackeray, R. Benedek, C. S. Johnson, S.-H. Kang, J. T. Vaughey "The Structural Design of Anode and Cathode Materials for Lithium Batteries" 58th Annual Meeting of International Society of Electrochemistry, Banff, AB, Canada, September, 2007.
- J. T. Vaughey, J. O'Hara, M. M. Thackeray "Electrochemical Studies of Substituted $\text{Cu}_6\text{-xMxSn}_5$ (M = Co, Ni, Zn) Alloys", 211th Meeting of the Electrochemical Society, Chicago, IL, USA, May 2007.
- J. T. Vaughey "Lithium-Ion Battery Anodes" Chemical Engineering Division Seminar, Argonne National Laboratory, Argonne, IL, March, 2007.
- J. T. Vaughey "The Structural Design of Lithium-Ion Battery Electrodes" 2006 Gordon Conference on Solid State Chemistry, New London, NH, July, 2006.
- M.M. Thackeray, J. T. Vaughey, C. S. Johnson "Electrochemical Studies on Pre-Lithiated Intermetallic Anodes", IMLB13 - the Thirteenth International Meeting on Lithium Batteries, Biarritz, France, June, 2006.
- Il-Seok Kim, J. T. Vaughey, J. Elam, M. Pellin, J. Carlisle, O. Auciello "Novel Cu_6Sn_5 Thin Film Electrodes for High Performance Thin Film Batteries" University of Chicago Materials Science Division Review, February, 2006.
- Il-Seok Kim, O. Auciello, J. T. Vaughey "Thin Film Cu_6Sn_5 Electrodes Prepared by RF Sputtering for Li-ion Batteries" 208th Meeting of the Electrochemical Society, Los Angeles, CA, USA, October 2005.
- Il-Seok Kim, J. T. Vaughey, J. Elam, M. Pellin, J. A. Carlisle, O. Auciello "New Cu_6Sn_5 Thin Film Electrodes for High Performance Thin Film Batteries : Synthesis and Characterization" 205th Meeting of the Materials Research Society, Boston, MA, November, 2005.
- J. T. Vaughey, Christopher Johnson, M. M. Thackeray "Pre-lithiation Reactions of Lithium-Ion Battery Electrodes" 208th Meeting of the Electrochemical Society, Los Angeles, CA, USA, October 2005.
- R. Benedek, R. Prasad, C. S. Johnson, J. T. Vaughey, M. M. Thackeray "First Principles Modeling of the Stability of Layered Li Battery Electrodes" Applied Science and Technology Program Review, Argonne, IL, April, 2005
- J. T. Vaughey, M. M. Thackeray "Advance Anodes for Lithium-Ion Batteries" Applied Science and Technology Program Review, Argonne, IL, April, 2005.
- E. Sorensen, S. Barry, K. R. Poeppelmeier, J. T. Vaughey "Three-Dimensionally Ordered Macroporous $\text{Li}_4\text{Ti}_5\text{O}_{12}$ " Gordon Conference on Solid State Chemistry, New London, NH, July 2004.
- T. S. Sarakonsri, C. S. Johnson, J. T. Vaughey, N. Li, S. A. Hackney, M.M. Thackeray "Low Temperature Synthesis of Intermetallics and Composite Electrodes for Lithium Batteries", IMLB12 - the Twelfth International Meeting on Lithium Batteries, Nara, Japan, June, 2004.

- C. S. Johnson, T. Sarakonsri, S. A. Hackney, J. T. Vaughey, N. Li, M.M. Thackeray "Synthesis and Electrochemical Properties of Nanoscopic Intermetallic Compounds", International Battery Association Battery and Fuel Cell Materials Symposium, Graz, Austria, April, 2004
- Michael M. Thackeray, John T. Vaughey, C.S. Johnson, A. J. Kropf, R. Benedek, L. M. L. Fransson, K. Edstrom "Alternative Anode Materials to Carbon for Lithium-Ion Batteries" International Battery Association Battery and Fuel Cell Materials Symposium, Graz, Austria, April, 2004.
- J. T. Vaughey, C. S. Johnson, H. A. Swinger, J. O'Hara, M.M. Thackeray "Electrochemical Studies of Intermetallic Phases" 226th American Chemical Society National Meeting, New York City, NY, September, 2003.
- Michael M. Thackeray, John T. Vaughey, Christopher S. Johnson, Jeom-Soo Kim "Limitations of Electrode Materials for Lithium Batteries", LIBD-2003: Lithium Battery Discussion on Electrode Materials, Bordeaux-Arachon, France, September, 2003.
- Jeremy Kropf, C. S. Johnson, J. T. Vaughey, M.M. Thackeray "In-Situ X-Ray Absorption Spectroscopy of Electrochemically Induced Phase Changes in Lithium-Doped InSb", XAFS XII: The 12th International Conference on X-ray Absorption Fine Structure Spectroscopy, Malmö, Sweden, June, 2003.
- M. M. Thackeray, R. Benedek, C. S. Johnson, J. T. Vaughey, A. J. Kahaian "New Electrode Materials for Battery Applications" Synthesis, Characterization and Modeling" Basic Energy Sciences (DOE) Electrochemistry Program Review, Argonne, IL, May 2003.
- M. M. Thackeray, C. S. Johnson, J. T. Vaughey, R. Benedek "Interfacial and Bulk Charge Transfer in Intermetallic and Metal Oxide Compounds" Basic Energy Sciences (DOE) Electrochemistry Program Review, Argonne, IL, May 2003.
- J. T. Vaughey, C. S. Johnson, A. J. Kropf, H. Tostmann, L. Fransson, K. Edstrom, M. M. Thackeray "Electron Transfer at the Border Between Intermetallic and Zintl Phases" Basic Energy Sciences (DOE) Electrochemistry Program Review, Argonne, IL, May 2003.
- K. Edström, M. Herstedt, J. T. Vaughey, M.M. Thackeray "Are Intermetallic Anodes for Li-Ion Batteries Safer?" International Battery Association- Hawaii Battery Conference 2003 Meeting, Waikoloa, HI, January 2003.
- L. Fransson, K. Edstrom, J. T. Vaughey, M. Thackeray "Phase Transitions in Lithiated Intermetallic Anodes for Lithium Batteries - In-Situ X-Ray Diffraction Studies" 202nd Meeting of the Electrochemical Society, Salt Lake City, UT October, 2002
- L. Fransson, K. Edstrom, J. T. Vaughey, M. Thackeray "Phase Transformation in Lithiated MnSb and Mn₂Sb" IMLB11 - Eleventh International Meeting on Lithium Batteries, Monterey, CA June, 2002.
- Michael M. Thackeray, J. T. Vaughey, C. S. Johnson, R. Benedek, L. M. L. Fransson, K. Edström "Structural Considerations of Intermetallic Electrodes for Lithium Batteries" IMLB11 - the Eleventh International Meeting on Lithium Batteries, Monterey, CA June, 2002.
- J. T. Vaughey, L. Fransson, K. Edström, H. Swinger, C. Johnson, M. Thackeray "Alternative Anode Materials for Lithium Batteries" IMLB11 - the Eleventh International Meeting on Lithium Batteries, Monterey, CA June, 2002.
- S. Johnson, A. J. Kropf, J. T. Vaughey, and M. M. Thackeray, "Structural Characterization of Anode and Cathode Materials for Lithium Batteries", International Workshop on the Industrial Applications of Synchrotron Radiation, Argonne, IL, September, 2002.

- Johnson, A. J. Kropf, H. Tostmann, J. Vaughey, M. Thackeray "Analysis of InSb Electrode Phase Conversion by In-Situ X-Ray Absorption Spectroscopy" 11th APS Users Meeting, Argonne National Laboratory, Argonne IL, September 2001.
- J. Kropf, H. Tostmann, C. S. Johnson, J. T. Vaughey, M. M. Thackeray "An In-Situ X-Ray Absorption Study of InSb Electrodes in Lithium Batteries" 200th Meeting of the Electrochemical Society, San Francisco, CA September 2001.
- T. Sarakonsri, S. Hackney, C. S. Johnson, J. T. Vaughey, M. Thackeray "Diffusional Transformations of InSb Electrodes in Lithium Cells", 200th Meeting of the Electrochemical Society, San Francisco, CA September 2001.
- L. Fransson, K. Edstrom, J.O. Thomas, J. T. Vaughey, M. M. Thackeray "In-situ XRD Studies of Phase Transitions in Lithiated Intermetallic Anodes", 200th Meeting of the Electrochemical Society, San Francisco, CA September 2001.
- J. Vaughey, C.S. Johnson, L. Fransson, J. Kropf, H. Tostmann, R. Benedek, K. Edstrom, J. O. Thomas, M.M. Thackeray "Lithium Insertion Reactions in Intermetallic Electrodes" International Conference on Materials for Advanced Technologies (ICMAT 2001), Materials Research Society (Singapore), July 2001.
- R. Benedek, J. T. Vaughey, M. M. Thackeray, R. Prasad "Modeling and Design of Intermetallic Electrodes for Lithium Batteries" 103rd Meeting of the American Ceramics Society, Indianapolis, IN April 2001.
- M. M. Thackeray, J. T. Vaughey, C. S. Johnson "Recent Advances in Electrode Materials for Lithium Batteries", 221st Meeting of the American Chemical Society, San Diego CA April 2001.
- M. M. Thackeray, J. T. Vaughey, C. S. Johnson, R. Benedek, L. Fransson, K. Edstrom, J. O. Thomas "Intermetallic Electrodes for Lithium Batteries: The Significance of Face Centered Cubic Structures" 18th Annual International Seminar and Exhibit on Primary and Secondary Batteries, Fort Lauderdale, FL, USA March 2001.
- M. M. Thackeray, J. T. Vaughey, C. S. Johnson "Recent Developments in Anode and Cathode Materials for Lithium-Ion Electrochemical Cells" Fall Materials Research Meeting, Boston, MA, December 2000.
- M. M. Thackeray, J. T. Vaughey, C. S. Johnson "Intermetallic Negative Electrodes for Lithium Batteries" Department of Energy and Department of Defense Workshop on Interfaces, Phenomena, and Nanostructures in Lithium Batteries, Argonne National Laboratory, Argonne, IL, December, 2000.
- J. T. Vaughey, C. S. Johnson, M. Thackeray, H. Tostmann, J. Kropf, T. Sarakonsri, S. Hackney "In-Situ XRD and Mechanistic Studies of InSb Electrodes for Lithium-Ion Batteries" 198th Meeting of the Electrochemical Society, Phoenix, AZ, October 2000.
- J. Vaughey "New Negative Electrodes for Lithium-Ion Batteries" University of Chicago - Chemical Engineering Division Review, Argonne, IL, September, 2000.
- J. T. Vaughey, C. S. Johnson, M. Thackeray, H. Tostmann, J. Kropf, T. Sarakonsri, S. Hackney "A New Class of Intermetallic Electrodes for Lithium-Ion Batteries" 2000 Gordon Conference on Solid State Chemistry, Colby-Sawyer College, NH, July/August 2000.
- C.S. Johnson, J. T. Vaughey, D.W. Dees, A.N. Jansen, M.M. Thackeray, T. Sarakonsri, S.A. Hackney "Electrochemistry and Impedance Analysis of Intermetallic Electrodes for Lithium-Ion Batteries" IMLB10 - the Tenth International Meeting on Lithium Batteries The Electrochemical Society, Centro Volta-Como, Italy May/June, 2000.

- J. T. Vaughey, C.S. Johnson, B. Roy, M.M. Thackeray, L. Fransson, K. Edstrom, J. Thomas "Structural and Mechanistic Studies of Intermetallic Electrodes" IMLB10 - the Tenth International Meeting on Lithium Batteries The Electrochemical Society, Centro Volta-Como, Italy May/June, 2000.
- A.J. Kropf, C. Johnson, M. M. Thackeray, J. T. Vaughey, H. Tostmann "In-Situ XAFS of Intermetallic Insertion Electrodes for Lithium Batteries - A Study of $\text{Li}_x[\text{InSb}]$ " 10th Users Meeting for the Advanced Photon Source, Argonne National Laboratory, May 2000.
- R. Benedek, J. T. Vaughey, M. Thackeray, L. H. Yang, R. Prasad "Intermetallic Anode Materials for Lithium Batteries" 102nd Annual Meeting of the American Ceramics Society. St Louis MO, April 2000.
- J. Vaughey "A New Class of Negative Electrodes for Lithium Batteries" CMT Divisional Seminar, Argonne, IL, April, 2000.
- C.S. Johnson, J. T. Vaughey, M. Thackeray "Cycling Performance of Intermetallic Insertion Electrodes in Lithium Batteries" Fourth Chicago Battery Workshop, Illinois Institute of Technology, Chicago, IL April, 2000.
- M. M. Thackeray, J. T. Vaughey, C. S. Johnson, K. D. Kepler "Intermetallic Insertion Anodes for Lithium Batteries" 13th International Battery Association Materials Symposium, Marrakesh, Morocco, November 1999.
- S. Johnson, M. M. Thackeray, J. T. Vaughey, K. D. Kepler, A. J. Kahaian,, K. Amine "Intermetallic Insertion Electrodes for Li-Ion Batteries" 40th Battery Symposium, Kyoto, Japan, November, 1999.
- J. Vaughey, K. Kepler, C. S. Johnson, T. Sarakonsri, M. Scott, A. Kahaian, S. Hackney, and M.M. Thackeray "Intermetallic Insertion Anodes for Lithium Batteries" 1999 Joint International Meetings and the 196th Meeting of the Electrochemical Society, Honolulu, HI, October 1999.
- C.H. Chen, J. Vaughey, A. N. Jansen, A. J. Kahaian, M. M. Thackeray "Electrochemical Studies of Mg-Doped $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Anodes" 1999 Joint International Meetings and the 196th Meeting of the Electrochemical Society, Honolulu, HI, October 1999.
- M.M.Thackeray, J. T. Vaughey, K.D. Kepler, A. J. Kahaian " $\text{Li}_x\text{Cu}_6\text{Sn}_5$ ($0 < x < 13$) An Intermetallic Insertion Electrode for Rechargeable Lithium Batteries" Sixteenth International Seminar & Exhibit for Primary and Secondary Batteries, Fort Lauderdale, Fl, March, 1999.
- A.J. Kahaian, J. T. Vaughey, K. Kepler, C. Chen, A. Jansen, M. Thackeray. "Synthesis and Characterization of Alternative Anode Materials for Li-Ion Batteries" Third International Symposium on New Materials for Fuel Cell and Modern Battery Systems, Montreal, Canada March, 1999.
- J. T. Vaughey "New Anode Materials for Secondary Lithium Ion Batteries" Chemistry Department Seminar, University of New Orleans, New Orleans, Feb, 1999.
- J. T. Vaughey, K. D. Kepler, A. N. Jansen, A. J. Kahaian, C. S. Johnson, K. Amine, D. Vissers, M.M. Thackeray "Electrochemical and Crystallographic Studies of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ ", 191st Meeting of the Materials Research Society, Boston, December, 1998.
- J. T. Vaughey "Intermetallic Anodes for Lithium Batteries", 191st Meeting of the Materials Research Society, Boston, December, 1998.
- S. Johnson, L.D. Noailles, J. T. Vaughey, and M.M. Thackeray "Microporous Titanium Oxide Anodes for

Rechargeable Lithium Batteries" 194th Meeting of the Electrochemical Society, Boston, October, 1998.

- K. D. Kepler, J. T. Vaughey, M. M. Thackeray "Copper-Tin Anodes for Rechargeable Lithium Batteries An Example of the Matrix Effect in an Intermetallic System" 9th International Meeting on Lithium Batteries, Edinburgh, Scotland, July 1998.
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- L.D. Noailles, C.S. Johnson, J. T. Vaughey, M.M. Thackeray "Lithium Insertion into Hollandite-type TiO₂" 9th International Meeting on Lithium Batteries, Edinburgh, Scotland, July 1998.
- J. T. Vaughey "Anionic Tin and Germanium: New Building Blocks for Main Group Materials", Inorganic Seminar Brandeis University, January, 1997.
- J. T. Vaughey "Synthesis, Structure, and Properties of a Variety of New Layered Materials", Chemical Technology Division, Argonne National Laboratory, Argonne, IL, January, 1997.
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- J. T. Vaughey, John D. Corbett "A New Structure Based on Interpenetrating Helices: Na[GaSn₂]" 210th American Chemical Society National Meeting, Chicago, IL, August 1995

Electrolytes

- N. Sa, H. Wang, B. Key, S. M. Brombosz, A. Burrell, and J. T. Vaughey "A Simple Approach of Electrolyte Development for Magnesium Ion Battery" Pacific Rim Meeting of the Electrochemical Societies, Honolulu, HI, October 2016
- C. Liao, B. Pan, J. T. Vaughey, Z. Zhang, and A. Burrell "Organic Cathodes for Energy Storage Systems" Pacific Rim Meeting of the Electrochemical Societies, Honolulu, HI, October 2016.
- B. Pan, J. T. Vaughey, Z. Zhang, A. K. Burrell, C. Liao "Exploring Reliable Organic Cathode Materials for High-Performance Mg-Ion Batteries" 18th International Meeting on Lithium Batteries, Chicago, IL, USA, June 2016.
- B. Pan, J. T. Vaughey, Z. Zhang, A. K. Burrell, C. Liao "Redox-Active Organic Molecule As High Performance Cathode Material for Non-Aqueous Rechargeable Magnesium-Ion Batteries" 229th Meeting of the Electrochemical Society, San Diego, CA June 2016.
- Chen Liao, Baofei Pan, John T Vaughey, Anthony Burrell "Progress towards Lewis Acid Free and Anodically Stable Mg-Ion Electrolytes" Materials Research Society, Phoenix AZ, March 2016.

- Chen Liao, Baofei Pan, Zhengcheng Zhang, John T. Vaughey, Anthony K. Burrell "Organic Cathodes for Magnesium Ion Batteries" Gordon Conference on Batteries, Ventura, CA, February 2016.
- Fikile R. Brushett¹, Lu Zhang, John T. Vaughey, Andrew N. Jansen "Energy Storage in Redox-Active Organic Molecules" AIChE Annual Meeting, Salt Lake City, UT, November, 2015.
- A. Hubaud, D. J. Schroeder, B. J. Ingram, J. Vaughey "Development of Solid Electrolyte Membranes" 20th International Conference on Solid State Ionics, Keystone, CO, June 2015.
- N. Sa, D. L. Proffit, J. T. Vaughey, A. L. Lipson, C. Liao, B. J. Ingram, Y. Ren, A. K. Burrell "Electrolyte Development for Magnesium Ion Batteries" 227th Meeting of the Electrochemical Society, Chicago, IL May, 2015.
- L. Su, F. Brushett, M. Ferrandon, J. Vaughey "Identification of Advanced Electrolytes for Non-Aqueous Redox Flow Batteries via a High-Throughput Screening Technique" AIChE Annual Meeting, Atlanta, GA, November 2014.
- Liao, B. Key, N. Sa, A. K. Burrell, Z. Zhang, and J. T. Vaughey "Development of Non-Aqueous Electrolytes for Multivalent Batteries" 226th Meeting of the Electrochemical Society, Cancun, Mexico, October 2014.
- F. Dogan, D. Proffit, A. Hubaud, D. J. Schroeder, B. Key, J. T. Vaughey "Materials Development for Energy Storage Applications" Gordon Conference on Solid State Chemistry, New London, NH, July 2014.
- L. Zhang, J. Huang, J. Vaughey, A. K. Burrell "Organic Redox-Active Molecules for NRF" 225th Meeting of the Electrochemical Society, Orlando, FL, May, 2014.
- Hubaud, D. Schroeder, B.J. Ingram, J. Vaughey "Thin Film Ceramic Electrolytes" Gordon Conference on Batteries, Ventura, CA, March 2014.
- L. Zhang, J. Vaughey, A. K. Burrell "Redox Active Molecular Engineering for Energy Storage" 224th Meeting of the Electrochemical Society, San Francisco, CA October, 2013.
- J. T. Vaughey, F. R. Brushett, A. N. Jansen "Grid Facing Storage Efforts at Argonne National Laboratory" Edison Electric Institute's Fall 2013 Transmission, Distribution, and Metering Conference, Charleston, SC, October 2013.
- A. Hubaud, B. J. Ingram, D. J. Schroeder, B. Key, F. Dogan, J. T. Vaughey "Protection of a Lithium Metal Anode with a Conductive Solid Ceramic Electrolyte", Beyond Lithium VI, Boulder, Colorado, June 2013.
- J. Vaughey, B. Key, D. Schroeder, A. Hubaud, B. Ingram, K. Gallagher, F. Dogan "Understanding the Formation of Solid Lithium-Ion Conductors" Beyond Lithium VI, Boulder, Colorado, June 2013.
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- J. Vaughey, B. Key, D. Schroeder, A. Hubaud, B. Ingram, K. Gallagher, F. Dogan "Understanding the Formation of Ceramic Lithium-Ion Conductors" IBA2013, Barcelona, Spain, March 2013.
- A. Hubaud, B. J. Ingram, D. J. Schroeder, B. Key, F. Dogan, J. T. Vaughey "Protection of a Lithium Metal Anode with a Conductive Solid Ceramic Electrolyte", 6th International Conference on Advanced Lithium Batteries for Automobile Applications, Argonne, IL, September 2013.
- J. Vaughey, D. Schroeder, B. Ingram, B. Key, A. Hubaud "Synthesis and Characterization of LLZ-Garnet based Li-ion Solid Electrolytes" BATT-ILIRP Fall Workshop, Argonne, IL, October 2012.

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- Fikile R. Brushett, Lu Zhang, John T. Vaughey, Andrew N. Jansen "Redox-active Organic Molecules for Non-Aqueous Flow Batteries" 222nd Meeting of the Electrochemical Society, Honolulu, HI, October 2012.
- Key, F. Dogan, D. Schroeder, A. Hubaud, B. Ingram, J. Vaughey "Solution Based Synthesis and Characterization of Lithium-Ion Conducting Ceramics for Lithium Metal Batteries", 54th Annual Rocky Mountain Conference on Magnetic Resonance, Copper Mountain, CO, July 2012.
- Fikile R. Brushett, John T. Vaughey, Andrew N. Jansen "An All-Organic Lithium-Ion Redox Flow Battery" Chemical Sciences and Engineering Divisional Seminar, Argonne National Laboratory, Argonne, IL, June, 2012.
- Baris Key, David J. Schroeder, Brian Ingram, John Vaughey "Solution-Based Synthesis and Characterization of Lithium-ion Conducting Ceramics" 7th International Symposium on Inorganic Phosphate Materials, Argonne, IL, November, 2011.
- Ingram, D. Schroeder, J. Vaughey, B. Key "Ceramic Electrolytes: Synthesis and Characterization" BATT-ILIRP Workshop, Berkeley, CA, October, 2011.
- Baris Key, David J. Schroeder, Brian Ingram, John Vaughey "Synthesis and Characterization of Lithium-ion Conducting Ceramics for Lithium Metal Batteries" 219th Meeting of the Electrochemical Society, Boston, MA, October, 2011.
- Fikile Brushett, Andrew Jansen, Jack Vaughey, Zhengcheng Zhang, Fulya Dogan "Exploratory Research of Non-Aqueous Flow Batteries for Renewable Energy Storage" 219th Meeting of the Electrochemical Society, Boston, MA, October, 2011.
- Fikile Brushett, Andrew Jansen, John Vaughey, Zhengcheng Zhang, Fulya Dogan "Exploratory Research of Non-aqueous Flow Batteries for Renewable Energy Storage" Polymer Batteries and Fuel Cells-5 (PBFC5), Argonne, IL, July, 2011.
- Schroeder, J. Vaughey, B. Key "Ceramic Electrolytes: Synthesis and Characterization" BATT-ILIRP Workshop, Berkeley, CA, March, 2011.
- A.N. Jansen, J.T. Vaughey "Exploratory Research of Non-Aqueous Flow Batteries" Argonne-PNNL Joint Workshop on Energy Storage, Argonne National Laboratory, November, 2010.
- M. Anderson, J. T. Vaughey, K. Poeppelmeier "Structural Similarities among Oxygen Deficient Perovskites" 205th American Chemical Society National Meeting, Denver, CO, March 1993.
- J.T. Vaughey, E.F. Hasty, K. R. Poeppelmeier "Cation Coordination and Oxygen Vacancies in Mixed-Oxide Perovskites" 8th International Conference on Solid State Ionics (SSI-8) Lake Louise, Alberta, CA October 1991.
- J. T. Vaughey, K. R. Poeppelmeier, "New Brownmillerite-Related Copper Oxides", 1990 Gordon Conference on Solid State Chemistry, Plymouth, NH, July 1990.
- J.B. Wiley, J. T. Vaughey, M. Sabat, K.R. Poeppelmeier "Synthesis, Structure, and Properties of New Layered Copper Oxides" 197th American Chemical Society National Meeting, Dallas, TX, April 1989.

New Materials

- B. J. Ingram, M. Hopper, J. Vaughey, J. Eastman, P. Fuoss "Investigating the Role of Defect Concentrations and Transport on Solid Oxide Fuel Cell and Battery Performances" International Symposium on Defects, Transport, and Related Phenomena, Materials Science & Technology 2014, Pittsburgh, PA, October, 2014.
- J. Mawdsley, J. D. Carter, S. Niyogi, X. Wang, J. T. Vaughey, R. Koc, "Aluminum Bipolar Plates with Composite Coatings for Proton Exchange Membrane Fuel Cells" 242nd Meeting of the American Chemical Society, Denver, CO, August 2011.
- J. Ralph, C. Rossignol, J. T. Vaughey "A Neutron Diffraction Study of Sr-Doped Lanthanum Ferrite Cathodes for SOFCs" 55th Annual Pacific Coast Regional & Basic Science Fall Meeting, Oakland, CA, October, 2003.
- C. Rossignol, J. M. Ralph, J.-M. Bae, J. T. Vaughey "Ln_{1-x}Sr_xCoO₃ (Ln=Gd, Pr) as a Cathode Material for Intermediate Temperature Solid Oxide Fuel Cells", 14th International Conference on Solid State Ionics, Monterey, CA, June, 2003
- J. M. Ralph, C. C. Rossignol, J. T. Vaughey "The Role of A-site Deficiency in the Performance of Sr-Doped Lanthanum Ferrite Cathodes for SOFC's" 105th Annual Meeting and Exposition of the American Ceramics Society, Nashville, TN, April 2003.
- J. M. Ralph, J. T. Vaughey, M. Krumpelt "Evaluation of Potential Cathode Materials for SOFC's Operating between 500-800 °C" 7th International Symposium on Solid Oxide Fuel Cells (SOFC-VII), Tsukuba, Japan, June 2001.
- Michael Klem, Jason Harp, J. T. Vaughey, J. D. Corbett "Polymerizing Clusters in the Solid State: Structure and Bonding in Sr₃Sn₅ and La₃Sn₅" 2000 Gordon Conference on Solid State Chemistry, Colby-Sawyer College, NH, August 2000.
- J. Ralph, J. T. Vaughey, M. Krumpelt "Medium Temperature Cathode Materials for Solid Oxide Fuel Cells" 2000 Fuel Cell Seminar, Portland OR, August 2000.
- X. Wang, J. Vaughey, J. Ralph, M. Krumpelt "New Materials to Enhance the Efficiency of Solid Oxide Fuel Cells" Material Solutions, Conference Solutions International Meeting, Cincinnati, OH, November, 1999.
- J. Vaughey, X. Wang, J. Ralph, J. D. Carter, and Mike Krumpelt "Altering the Equilibrium in Sr-Doped Lanthanum Manganite" 6th International Symposium on Solid Oxide Fuel Cells (SOFC-VI), Honolulu, HI October 1999.
- X. Wang, J. Vaughey, J. Ralph, M. Krumpelt "Cathode Materials for Solid Oxide Fuel Cells", 1999 Joint DOE/EPRI/GRI Fuel Cell Technology Review Conference, August 1999.
- J. T. Vaughey "Structural Control in Solid State Chemistry" Inorganic Seminar, University of Nebraska-Lincoln, January, 1996.
- J. T. Vaughey "Structural Control in Solid State Chemistry" Inorganic Seminar, University of New Mexico, January, 1996.
- W.T.A. Harrison, J. T. Vaughey, L. Dussack, D. Goshorn, J. Johnson, Allan J. Jacobson "Synthesis, Structure, and Magnetic Properties of Several New Barium Vanadium Phosphates" 1994 Gordon Conference on Solid State Chemistry, Wolfeboro, NH, July 1994.
- J. T. Vaughey, W.T.A. Harrison, L. Dussack, Allan J. Jacobson "Synthesis, Structures, and Properties of a

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- K. Poeppelmeier, J. T. Vaughey, M.T. Anderson, D. A. Groenke, R. Torecki, B. Dabrowski, D. G. Hinks, A.W. Mitchell, P. Radaelli "New Family of Planar Cuprate Superconductors" 203rd American Chemical Society National Meeting, San Francisco, CA, April 1992.
- J. T. Vaughey "Synthesis, Structure and Properties of Several New Layered Cuprates", Inorganic Seminar, Rice University, Houston, TX, October 1992.
- B. Dabrowski, J. T. Vaughey, D.A. Groenke, K. R. Poeppelmeier, P. Radaelli, A. W. Mitchell, D. G. Hinks "A New Family of Superconducting Copper Oxides : $\text{GaSr}_2\text{Ln}_{1-x}\text{Ca}_x\text{Cu}_2\text{O}_7$ " 16th Annual Conference on Composites and Advanced Ceramics, Cocoa Beach, FL, January, 1992
- B. Dabrowski, V. Zhang-McCoy, P. Radaelli, A. W. Mitchell, D. G. Hinks, J. T. Vaughey, D. A. Groenke, K. R. Poeppelmeier "Synthesis and Properties of a New Family of Superconducting Copper Oxides based on GaO Layers" 5th Annual Conference on Superconductivity and Applications, Buffalo, NY, September, 1991
- K.R. Poeppelmeier, J. Thiel, J. T. Vaughey, M. T. Anderson, D. Groenke, C. L. Stern "Cuprate Oxides - Effect of Non-Magnetic Chains and Planes on Superconductivity" 202nd American Chemical Society National Meeting, New York City, NY August 1991.
- K. R. Poeppelmeier, J.P. Thiel, J. T. Vaughey, M. T. Anderson, D. A. Groenke, C. L. Stern, B. Dabrowski, D. G. Hinks, A. W. Mitchell "New Family of Planar Cuprate Superconductors - Effect of Non-Magnetic Chains and Planes" 3rd International Conference on Materials and Mechanisms of Superconductivity : High Temperature Superconductors, Kanazawa, Japan, July 1991.
- S. M. Wang, J. D. Carpenter, M. V. Deaton, S. -J. Hwu, J. T. Vaughey, K. R. Poeppelmeier, S. N. Song, J. B. Ketterson, "A New Series of Mixed Metal Cuprates in the T' Structure: $\text{Nd}_{2-x-y}\text{M}_x\text{Ce}_y\text{CuO}_4$ (M=Ca,Mg)" Second World Congress on Superconductivity, Houston, TX, September 1990.
- H. Beall, J. T. Vaughey "Oxidation of Carbons and Coal" Eighteenth Biennial Conference on Carbon, American Carbon Society, Worcester, MA, July, 1987.
- J. T. Vaughey, H. Beall "Partial Oxidation of Coal and Carbon Black" Seventeenth Annual Meeting of the Central Massachusetts Section of the American Chemical Society, April, 1987.