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**Founding Director of**Sustainable Power and Energy Center (SPEC)**Inaugural Director of**Institute for Materials Discovery & Design**Affiliated Faculty with**Center for Memory & Recording ResearchMaterials Science & Eng. Program**a. Education and Training**

Massachusetts Institute of Technology

Postdoc

2005 – 2007

Singapore-MIT Alliance, National University of Singapore

Ph.D

2000 – 2005

Nanyang Technological University, Singapore

B.A.Sc (Matl. Eng.)

1996 – 2000

First class honor

**b. Research and Professional Experience**

2019 – Now Inaugural Director, Institute for Materials Discovery and Design (IMDD)

2017 – Now Professor, NanoEngineering, University of California, San Diego

2015 – Now Found Director, Sustainable Power &amp; Energy Center (SPEC)

2013 – 2017 Associate Professor, NanoEngineering, University of California, San Diego

2009 – 2013 Assistant Professor, NanoEngineering, University of California, San Diego

2009 – 2013 Adjunct Professor, Materials Science and Engineering, University of Florida

2008 – 2009 Assistant Professor, Materials Science and Engineering, University of Florida

2007 – 2008 Research Scientist, Materials Sci &amp; Eng, Massachusetts Institute of Technology

Meng's research group (**LESC: Laboratory for Energy Storage & Conversion**) <http://smeng.ucsd.edu>**c. Awards and Honors**

2021, Elected Fellow of Materials Research Society (FMRS)

2020, Michael Faraday Medal of Royal Society of United Kingdom

2019, Chancellor's Associates Faculty Research Excellence Award

2019, International Battery Association IBA Research Award

2018, Elected Fellow of Electrochemical Society (FECS)

2018, Blavatnik National Awards Finalist <http://blavatnikawards.org/>

2018, American Chemical Society ACS Applied Materials &amp; Interfaces Young Investigator Award 2018,

International Coalition for Energy Storage and Innovation (ICESI) Inaugural Young Career Award

2017, IUMRS-Singapore Young Scientist Research Award

2016, Clean Energy Education &amp; Empowerment (C3E) Award Finalist (Honorable mention)

2016, Charles W. Tobias Award, Electrochemical Society

2015, Frontier of Innovation Award

2014, Science Award Electrochemistry by BASF and Volkswagen

2013, Chancellor's Interdisciplinary Research Award

2011, National Science Foundation (NSF) CAREER Award

2008, Early Career Faculty Travel Award (The Electrochemical Society)

2003, Graduate Student Award (Materials Research Society)

2002, Systems on Silicon Manufacturing Co. Pte. Ltd (SSMC) Award

2000, Singapore-MIT Alliance SMA Postgraduate Study Scholarship (2000-2005)  
1998, Industrial Attachment Book Prize  
1996, Singapore Welding Society Book Prize  
1995, Ministry of Education Singapore Undergraduate Study Scholarship (1996-2000)  
1994, Wong's Fund (USA) Award

**d. Peer-Reviewed Journal Publications (Total 226, H-index 80, info from Google Scholar, \*corresponding author)**

1. Q. Li, Z. W. Lebens-Higgins, Y. Li, Y. S. Meng, Y. Chuang, L. F. J. Piper, Z. Liu and W. Yang, "Could Irradiation Introduce Oxidized Oxygen Signals in Resonant Inelastic X-ray Scattering of Battery Electrodes?", **J. Phys. Chem. Lett.** 2021, 12, 1138–1143
2. H. Chung, Z. Lebens-Higgins, B. Sayahpour, C. Mejia, A. Grenier, G. E. Kamm, Y. Li, R. Huang, L. F. J. Piper, K. W. Chapman, J. Doux and Y. S. Meng, "Experimental considerations to study Li-excess disordered rock salt cathode materials", **J. Mater. Chem. A**, 2021, 9, 1720
3. L. Yin, J. Scharf, J. Ma, J. Doux, C. Redquest, V. L. Le, Y. Yin, J. Ortega, X. Wei, J. Wang and Y. S. Meng, "High Performance Printed AgO-Zn Rechargeable Battery for Flexible Electronics", **Joule**, 2020, 5, 1-21
4. W. Yim, D. Cheng, S. H. Patel, R. Kou, Y. S. Meng and J. V. Jokerst, "KN95 and N95 Respirators Retain Filtration Efficiency despite a Loss of Dipole Charge during Decontamination", **ACS Appl. Mater. Interfaces**, 2020, ASAP
5. B. Markey, M. Zhang, I. Robb, P. Xu, H. Gao, D. Zhang, J. Holoubek, D. Xia, Y. Zhao, J. Guo, M. Cai, Y. S. Meng and Z. Chen, "Effective Upcycling of Graphite Anode: Healing and Doping Enabled Direct Regeneration", **Journal of The Electrochemical Society**, 2020, 167, 160511
6. Y. Li, M. J. Zuba, S. Bai, Z. W. Lebens-Higgins, B. Qiu, S. Park, Z. Liu, M. Zhang, L. F. J. Piper and Y. S. Meng, "Regeneration of degraded Li-rich layered oxide materials through heat treatment-induced transition metal reordering", **Energy Storage Materials**, 2020, ASAP
7. M. Zhang, B. Qiu, J. M. Gallardo-Amores, M. Olguin, H. Liu, Y. Li, C. Yin, S. Jiang, W. Yao, M. Elena Arroyo-de Dompablo, Z. Liu and Y. S. Meng, "High Pressure Effect on Structural and Electrochemical Properties of Anionic Redox- Based Lithium Transition Metal Oxides", **Matter**, 2020, ASAP
8. P. Xu, Q. Dai, H. Gao, H. Liu, M. Zhang, M. Li, Y. Chen, K. An, Y. S. Meng, P. Liu, Y. Li, J. S. Spangenberg, L. Gaines, J. Lu and Z. Chen, "Efficient Direct Recycling of Lithium-Ion Battery Cathodes by Targeted Healing", **Joule**, 2020, 4, 1-18
9. N. Gao, A. W. Abboud, G. S. Mattei, Z. Li, A. A. Corrao, C. Fang, B. Liaw, Y. S. Meng, P. G. Khalifah, E. J. Dufek and B. Li, "Fast Diagnosis of Failure Mechanisms and Lifetime Prediction of Li Metal Batteries", **Small Methods**, 2020, 2000807
10. E. A. Wu, C. Jo, D. H. S. Tan, M. Zhang, J. Doux, Y. Chen, G. Deysher and Y. S. Meng, "A Facile, Dry-Processed Lithium Borate-Based Cathode Coating for Improved All-Solid-State Battery Performance", **Journal of The Electrochemical Society**, 2020, 167, 130516
11. H. Ren, Y. H. Lee, E. A. Wu, H. Chung, Y. S. Meng, E. E. Fullerton and N. Q. Minh, "Nano-Ceramic Cathodes via Co-sputtering of Gd-Ce Alloy and Lanthanum Strontium Cobaltite for Low-Temperature Thin-Film Solid Oxide Fuel Cells", **ACS Appl. Energy Mater.** 2020, 3, 9, 8135–8142
12. D. Cheng, T. A. Wynn, X. Wang, S. Wang, M. Zhang, R. Shimizu, S. Bai, H. Nguyen, C. Fang, M. Kim, W. Li, B. Lu, S. J. Kim and Y. S. Meng, "Unveiling the Stable Nature of the Solid Electrolyte

- Interphase between Lithium Metal and LiPON via Cryogenic Electron Microscopy”, **Joule**, 2020, 4, 11, 2484-2500
13. D. H. S. Tan, P. Xu, H. Yang, M. Kim, H. Nguyen, E. A. Wu, J. M. Doux, A. Banerjee, Y. S. Meng, and Z. Chen, “Sustainable design of fully recyclable all solid-state batteries”, **MRS Energy & Sustainability**, 2020, 7, E23
  14. M. A. T. Marple, T. A. Wynn, D. Cheng, R. Shimizu, H. E. Mason, and Y. S. Meng, “Local structure of glassy lithium phosphorus oxynitride thin films: a combined experimental and ab initio approach”, **Angew. Chem. Int. Ed.** 2020, 59, 2–11
  15. Y. Luo, P. Parikh, T. M. Brenner, M. Kim, R. Wang, Y. Yang, J. Correa-Baena, T. Buonassisi, Y. S. Meng, and D. P. Fenning, “Quantitative Specifications to Avoid Degradation during E-Beam and Induced Current Microscopy of Halide Perovskite Devices”, **Journal of Physical Chemistry C**, 2020, 124, 18961–18967
  16. X. Wang, G. Pawar, Y. Li, X. Ren, M. Zhang, B. Lu, A. Banerjee, P. Liu, E. J. Dufek, J. Zhang, J. Xiao, J. Liu, Y. S. Meng and B. Liaw, “Glassy Li metal anode for high-performance rechargeable Li batteries”, **Nature Materials**, 2020, 19, 1339–1345
  17. Y. S. Meng, “Introduction: Beyond Li-Ion Battery Chemistry”, **Chem. Rev.** 2020, 120, 6327–6327
  18. W. Li, Y. Cho, W. Yao, Y. Li, A. Cronk, R. Shimizu, M. A. Schroeder, Y. Fu, F. Zou, V. Battaglia, A. Manthiram, M. Zhang and Y. S. Meng, “Enabling high areal capacity for Co-free high voltage spinel materials in next-generation Li-ion batteries”, **Journal of Power Sources** 2020, 473, 228579
  19. M. Kim, S. Ham, D. Cheng, T. A. Wynn, H. S. Jung and Y. S. Meng, “Advanced Characterization Techniques for Overcoming Challenges of Perovskite Solar Cell Materials”, **Adv. Energy Mater.** 2020, 2001753
  20. H. S. Hirsh, Y. Li, D. H. S. Tan, M. Zhang, E. Zhao and Y. S. Meng, “Sodium-Ion Batteries Paving the Way for Grid Energy Storage”, **Adv. Energy Mater.** 2020, 2001274
  21. S. Wang, A. Cabreros, Y. Yang, A. S. Hall, S. Valenzuela, Y. Luo, J. Correa-Baena, M. Kim, Ø. Fjeldberg, D. P. Fenning and Y. S. Meng, “Impacts of the Hole Transport Layer Deposition Process on Buried Interfaces in Perovskite Solar Cells”, **Cell Reports Physical Science**, 2020, 1, 100103
  22. Banerjee, X. Wang, C. Fang, E. A. Wu and Y. S. Meng, “Interfaces and Interphases in All-Solid-State Batteries with Inorganic Solid Electrolytes”, **Chem. Rev.** 2020, 120, 14, 6878–6933
  23. Y. Yang, Y. Yin, D. M. Davies, M. Zhang, M. Mayer, Y. Zhang, E. S. Sablina, S. Wang, J. Z. Lee, O. Borodin, C. S. Rustomji and Y. S. Meng, “Liquefied gas electrolytes for wide-temperature lithium metal batteries”, **Energy Environ. Sci.** 2020, 13, 2209 – 2219
  24. C. V. Keef, L. V. Kayser, S. Tronboll, C. W. Carpenter, N. B. Root, M. Finn III, T. F. O’Connor, S. N. Abuhamdieh, D. M. Davies, R. Runser, Y. S. Meng, V. S. Ramachandran and D. J. Lipomi, “Virtual Texture Generated Using Elastomeric Conductive Block Copolymer in a Wireless Multimodal Haptic Glove”, **Adv. Intell. Syst.** 2020, 2, 2000018
  25. Y. H. Lee, H. Ren, E. Wu, E. E. Fullerton, Y. S. Meng and N. Q. Minh, “All-Sputtered, Superior Power Density Thin-Film Solid Oxide Fuel Cells with a Novel Nanofibrous Ceramic Cathode”, **Nano Lett.** 2020, 20, 5, 2943–2949
  26. D. H. S. Tan, A. Banerjee, Z. Chen and Y. S. Meng, “From nanoscale interface characterization to sustainable energy storage using all-solid-state batteries”, **Nature Nanotechnology**, 2020, 15, 170–180
  27. B. Qiu, M. Zhang, S. Lee, H. Liu, T. A. Wynn, L. Wu, Y. Zhu, W. Wen, C. M. Brown, D. Zhou, Z. Liu and Y. S. Meng, “Metastability and Reversibility of Anionic Redox-Based Cathode for High-Energy Rechargeable Batteries”, **Cell Reports Physical Science**, 2020, 1, 100028

28. Y. Li, X. Wang, H. Zhou, X. Xing, A. Banerjee, J. Holoubek, H. Liu, Y. S. Meng and P. Liu, "Thin Solid Electrolyte Layers Enabled by Nanoscopic Polymer Binding", **ACS Energy Lett.** 2020, 5, 955–961
29. Z. W. Lebens-Higgins, H. Chung, M. J. Zuba, J. Rana, Y. Li, N. V. Faenza, N. Pereira, B. D. McCloskey, F. Rodolakis, W. Yang, M. S. Whittingham, G. G. Amatucci, Y. S. Meng, T. Lee and L. F. J. Piper, "How Bulk Sensitive is Hard X-ray Photoelectron Spectroscopy: Accounting for the Cathode–Electrolyte Interface when Addressing Oxygen Redox", **J. Phys. Chem. Lett.** 2020, 11, 2106–2112
30. J. Doux, Y. Yang, D. H. S. Tan, H. Nguyen, E. A. Wu, X. Wang, A. Banerjee, Y. S. Meng, "Pressure effects on sulfide electrolytes for all solidstate batteries", **J. Mater. Chem. A**, 2020, 8, 5049–5055
31. F. Yang, W. Hu, C. Yang, M. Patrick, A. L. Cooksy, J. Zhang, J. A. Aguiar, C. Fang, Y. Zhou, Y. S. Meng, J. Huang, J. Gu, "Tuning Internal Strain in Metal–Organic Frameworks via Vapor Phase Infiltration for CO<sub>2</sub> Reduction", **Angew. Chem. Int. Ed.** 2020, 59, 4572 – 4580
32. L. Yin, Z. Li, G. S. Mattei, J. Zheng, W. Zhao, F. Omenya, C. Fang, W. Li, J. Li, Q. Xie, E. M. Erickson, J. Zhang, M. S. Whittingham, Y. S. Meng, A. Manthiram and P. G. Khalifah, "Thermodynamics of anti-site defects in layered NMC cathodes: systematic insights from high-precision powder diffraction analyses", **Chem. Mater.** 2020, 32, 3, 1002-1010
33. D. G. Lee, M. Kim, S. Wang, B. J. Kim, Y. S. Meng and H. S. Jung, "Effect of Metal Electrodes on Aging-Induced Performance Recovery in Perovskite Solar Cells", **ACS Appl. Mater. Interfaces**, 11, 48497, 2019.
34. J. Holoubek, Y. Yin, M. Li, M. Yu, Y. S. Meng, P. Liu and Z. Chen, "Exploiting Mechanistic Solvation Kinetics for Dual-Graphite Batteries with High Power Output at Extremely Low Temperature", **Angew. Chem. Int. Ed.** 58, 18892, 2019.
35. J. Doux, H. Nguyen, D. H. S. Tan, A. Banerjee, X. Wang, E. A. Wu, C. Jo, H. Yang and Y. S. Meng, "Stack Pressure Considerations for Room-Temperature All-Solid-State Lithium Metal Batteries", **Adv. Energy Mater.** 10, 1903253, 2019.
36. D. H. S. Tan, E. A. Wu, H. Nguyen, Z. Chen, M. A. T. Marple, J. Doux, X. Wang, H. Yang, A. Banerjee and Y. S. Meng, "Elucidating Reversible Electrochemical Redox of Li<sub>6</sub>PS<sub>5</sub>Cl Solid Electrolyte", **ACS Energy Lett.**, 4, 2418–2427, 2019.
37. D. H. S. Tan, A. Banerjee, Z. Deng, E. A. Wu, H. Nguyen, J. Doux, X. Wang, J. Cheng, S. P. Ong, Y. S. Meng and Z. Chen, "Enabling Thin and Flexible Solid-State Composite Electrolytes by the Scalable Solution Process", **ACS Appl. Energy Mater.**, 2, 9, 6542-6550, 2019.
38. A. Banerjee, H. Tang, X. Wang, J. Cheng, H. Nguyen, M. Zhang, D. Tan, T. Wynn, E. Wu, J.M. Doux, T. Wu, L. Ma, G. E. Sterbinsky, M. Dsouza, S. P. Ong, and Y. S. Meng, "Revealing Nanoscale Solid-Solid Interfacial Phenomena for Long-Life and High-Energy All-Solid-State Batteries", **ACS Appl. Mater. Interfaces**, 11, 46, 43138-43145, 2019.
39. Chengcheng Fang, Jinxing Li, Minghao Zhang, Yihui Zhang, Fan Yang, Jungwoo Z. Lee, Min-Han Lee, Judith Alvarado, Marshall A. Schroeder, Yangyuchen Yang, Bingyu Lu, Nicholas Williams, Miguel Ceja, Li Yang, Mei Cai, Jing Gu, Kang Xu, Xuefeng Wang and Ying Shirley Meng\*, "Quantifying inactive lithium in lithium metal batteries", **Nature**, 573, 511, 2019.
40. J. Shin, J. K. Seo, R. Yaylian, A. Huang and Y. S. Meng, "A review on mechanistic understanding of MnO<sub>2</sub> in aqueous electrolyte for electrical energy storage systems", **International Materials Review**, 8, 2019
41. H. Hirsh, M. Olguin, H. Chung, Y. Li, S. Bai, D. Feng, D. Wang, M. Zhang and Y. S. Meng, "Meso-Structure Controlled Synthesis of Sodium Iron-Manganese Oxides Cathode for Low-Cost Na-Ion Batteries", **Journal of The Electrochemical Society**, 166 (12) A2528, 2019

42. H. Chung, A. Grenier, R. Huang, X Wang, Z. Lebens-Higgins, J. Doux, S. Sallis, C. Song, P. Ercius, K. Chapman, L. J. Piper, H. Cho, M. Zhang and Y. S. Meng, "Comprehensive study of a versatile polyol synthesis approach for cathode materials for Li-ion batteries", **Nano Research**, 12, 9, 2238, 2019.
43. J. Liu, Z. Bao, Y. Cui, E. J. Dufek, J. B. Goodenough, P. Khalifah, Q. Li, B. Y. Liaw, P. Liu, A. Manthiram, Y. S. Meng, V. R. Subramanian, M. F. Toney, V. V. Viswanathan, M. S. Whittingham, J. Xiao, W. Xu, J. Yang, X.-Q. Yang and J.-G. Zhang, "Pathways for practical high-energy long-cycling lithium metal batteries" **Nature Energy**, 4, 180, 2019.
44. Y. Shi, M. Zhang, Y. S. Meng and Z. Chen, "Ambient-Pressure Relithiation of Degraded  $\text{Li}_x\text{Ni}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$  ( $0 < x < 1$ ) via Eutectic Solutions for Direct Regeneration of Lithium-Ion Battery Cathodes", **Advanced Energy Materials**, 190045, 2019.
45. H. Zhou, H. Liu, Y. Li, X. Yue, X. Wang, M. Gonzalez, Y. S. Meng and P. Liu, "In-situ formed polymer gel electrolytes for lithium batteries with inherent thermal shutdown safety features", **J. Mater. Chem. A**, 7, 16984, 2019.
46. D. Wang, H. Liu, M. Li, X. Wang, S. Bai, Y. Shi, J. Tian, Z. Shan, Y. S. Meng, P. Liu, Z. Chen, "Nanosheet-assembled hierarchical  $\text{Li}_4\text{Ti}_5\text{O}_{12}$  microspheres for high-volumetric-density and high-rate Li-ion battery anode", **Energy Storage Materials**, 21, 361–371, 2019.
47. Y. Yang, D. M. Davies, Y. Yin, O. Borodin, J. Z. Lee, C. Fang, M. Olguin, Y. Zhang, E. S. Sablina, X. Wang, C. S. Rustomji\* and Y. S. Meng\*, "High-Efficiency Lithium-Metal Anode Enabled by Liquefied Gas Electrolytes", **Joule**, 3, 1–15, 2019.
48. S. Hong, Y. Gu, J. K. Seo, J. Wang, P. Liu, Y. S. Meng, S. Xu, R. Chen, "Wearable thermoelectrics for personalized thermoregulation", **Science Advances**, 5, 0536, 2019.
49. C. Fang, X. Wang, and Y. S. Meng, "Key Issues Hindering a Practical Lithium-Metal Anode" **Trends in Chemistry**, 1, 152, 2019
50. H. Nguyen, A. Banerjee, X. Wang, D. Tan, E. A. Wu, J. Doux, R. Stephens, G. Verbist, Y. S. Meng\*, "Single-step synthesis of highly conductive  $\text{Na}_3\text{PS}_4$  solid electrolyte for sodium all solid-state batteries", **Journal of Power Sources**, 435, 126623, 2019.
51. J. Alvarado, M. A Schroeder, T. P Pollard, X. Wang, J. Z Lee, M. Zhang, T. Wynn, M. Ding, O. A Borodin, Y. S. Meng\* and K. Xu\*, "Bisalt Ether Electrolytes\_ A Pathway Towards Lithium Metal Batteries with Ni-rich Cathodes", **Energy Environ. Sci.**, 12, 780, 2019.
52. J.-P. Correa-Baena, Y. Luo, T. M. Brenner, ... S. Wang, Y. S. Meng, T. Buonassisi and D. P. Fenning, "Homogenized Halides and Alkali Cation Segregation in Alloyed Organic-Inorganic Perovskites", **Science**, 363(6427), 727, 2019.
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54. C. Wang, Y. S. Meng, and Kang Xu, "Fluorinating Interphases", **Journal of The Electrochemical Society**, 166 (3), A5184, 2019.
55. D.M. Davies, M.G. Verde, O. Mnyshenko, Y.R. Chen, R. Rajeev, Y.S. Meng\* and G. Elliott\*, "Combined Economic and Experimental Evaluation of Energy Storage for Grid Applications", **Nature Energy**, 4, 42, 2019.
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57. S. Wang, Z. Huang, X. Wang, Y. Li, M. Günther, S. Valenzuela, P. Parikh, A. Cabreros, W. Xiong, and Y. S. Meng\*, "Unveiling the Role of  $t\text{BP-LiTFSI}$  Complexes in Perovskite Solar Cells" **J. Am. Chem. Soc.**, 140 (48), 16720, 2018.

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59. T.A. Wynn, J.Z. Lee, A. Banerjee and Y.S. Meng\* "In situ and operando probing of solid– solid interfaces in electrochemical devices" *MRS Bulletin*, 43 (10), 768, 2018.
60. L. Yin, G. S. Mattei, Z. Li, J. Zheng, W. Zhao, F. Omenya, C. Fang, W. Li, J. Li, Q. Xie, J.-G. Zhang, M. S. Whittingham, Y. S. Meng, A. Manthiram, and P. G. Khalifah "Extending the limits of powder diffraction analysis\_ Diffraction parameter space, occupancy defects, and atomic form factors" *Review of Scientific Instruments*, 89, 093002, 2018
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62. X. Wang, Y. Li, X. Bi, L. Ma, T. Wu, M. Sina, S. Wang, M. Zhang, J. Alvarado, B. Lu, A. Banerjee, K. Amine, J. Lu, and Y. S. Meng\* "Hybrid Li-Ion and Li-O<sub>2</sub> Battery Enabled by Oxyhalogen-Sulfur Electrochemistry", *Joule*, 2 (11), 2381, 2018,
63. S. M. Wood, C. Fang, E. J. Dufek, S. C. Nagpure, S. V. Sazhin, B. Liaw, and Y. S. Meng\*, "Predicting Calendar Aging in Lithium Metal Secondary Batteries\_ The Impacts of Solid Electrolyte Interphase Composition and Stability", *Adv. Energy Mater.* 8(26), 1801427, 2018
64. M. Zhang, H.D. Liu, Z. Liu, C. Fang, and Y. S. Meng\*, "Modified Coprecipitation Synthesis of Mesostructure-Controlled Li-Rich Layered Oxides for Minimizing Voltage Degradation", *ACS Appl. Energy Mater.*, 1(7), 3369, 2018.
65. X. Ren, S. Chen, H. Lee, D. Mei, M. H. Engelhard, S. D. Burton, W. Zhao, J. Zheng, Q. Li, M. S. Ding, M. Schroeder, J. Alvarado, K. Xu, Y. S. Meng, J. Liu, J-G. Zhang, W. Xu, "Localized High-Concentration Sulfone Electrolytes for High-Efficiency Lithium-Metal Batteries", *Chem.*, 4, 1, 2018.
66. Y. Shi, M. Zhang, C. Fang, and Y. S. Meng\*, "Urea-based hydrothermal synthesis of LiNi<sub>0.5</sub>Co<sub>0.2</sub>Mn<sub>0.3</sub>O<sub>2</sub> cathode material for Li-ion battery", *Journal of Power Sources*, 394, 114, 2018
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70. D. J. Alvarado, M. A. Schroeder, M. Zhang, O. Borodin, E. Gobrogge, M. Olguin, M. S. Ding, M. Gobet, S. Greenbaum, Y. S. Meng\*, Kang Xu\*, "A carbonate-free, sulfone-based electrolyte for high-voltage Li-ion batteries", *Materials Today*, 21 (4), 341, 2018. Editor's choice
71. H. Li, H. Tang, C. Ma, Y. Bai, J. Alvarado, B. Radhakrishnan, S. P. Ong, F. Wu, Y. S. Meng\*, and C. Wu\*, "Understanding the Electrochemical Mechanisms Induced by Gradient Mg<sup>2+</sup> Distribution of Na-Rich Na<sub>3+x</sub>V<sub>2-x</sub>Mg<sub>x</sub>(PO<sub>4</sub>)<sub>3,C</sub> for Sodium Ion Batteries" *Chem. Mater.*, 30 (8), 2498, 2018.
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#### e. Patents and Book Chapter

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2. Y. S. Meng, "High Energy Density Cathode Materials for Lithium Ion Batteries," US 12/143606, 2012.
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4. J. Wang, R. Kumar, Y.S. Meng, J.W. Shin and L. Yin, "Hyper-elastic Binder for Printed, Stretchable Electronics", US/15/820, 284 and PCT/US62860, 2017
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11. A chapter in **Handbook of Solid State Batteries** 2nd Edition, Edited by: Nancy J Dudney, William C West and Jagjit Nanda (World Scientific Publishing)
12. A chapter in **Handbook of Materials Modeling-Battery Electrodes, Electrolytes, and Their Interfaces**, Edited by: Wanda Andreoni and Sidney Yip (Springer)

**f. Selected Keynote and Invited Talks**

1. Seminar Talk, The Electrochemical Society (ECS) Student Chapter, University of Notre Dame, Virtual, March 10<sup>th</sup>, 2021
2. Seminar Talk, Georgia Institute of Technology, Virtual, March 9<sup>th</sup>, 2021
3. Materials Science & Engineering Department Colloquium, Northwestern University, Virtual, January 26<sup>th</sup>, 2021
4. Seminar Talk, The Mexican Energy Storage Network, Virtual, January 22<sup>nd</sup>, 2021
5. Seminar Talk, Chemours, Virtual, January 8<sup>th</sup>, 2021
6. Invited Talk, Symposium F.EN07.01, Materials Research Society (MRS), Fall Meeting, Virtual, December 2<sup>nd</sup>, 2020
7. Invited Talk, 8<sup>th</sup> International Renewable Sustainable Energy (IRSEC) Conference, Virtual, November 25<sup>th</sup>-28<sup>th</sup>, 2020
8. Seminar Talk, Lawrence Livermore National Lab, Virtual Seminar, November 20<sup>th</sup>, 2020
9. Seminar Talk, The Qualcomm Institute, Virtual, November 6<sup>th</sup>, 2020
10. Seminar Talk, Materials Science and Engineering, University of Pennsylvania, Virtual, November 5<sup>th</sup>, 2020
11. Seminar Talk, Columbia University, Electrochemical Energy Center, Virtual Seminar, October 30<sup>th</sup>, 2020
12. Quantum Materials/Computing Round Table, Virtual, October 30<sup>th</sup>, 2020
13. Invited Talk, Underwriters Laboratories (UL) Battery Safety Webinar, Virtual, October 28<sup>th</sup>, 2020
14. Invited Talk, Career Development and Gender Equality Webinar hosted by Cell Press and Joule, Virtual, October 28<sup>th</sup>, 2020
15. Invited Talk, Materials Research Society (MRS) & Thermo Fisher Scientific (TFS), October 27<sup>th</sup>, 2020
16. Symposium Talks, PRiME 2020, The Electrochemical Society (ECS), Virtual, October 5<sup>th</sup>-8<sup>th</sup>, 2020
17. Invited Talk, Israel National Research Center for Electrochemical Propulsion (INREP) 2020 Annual Conference, Virtual, September 15<sup>th</sup>, 2020
18. Invited Talk, Symposium P03.2, Microscopy & Microanalysis (MM) Meeting, August 6<sup>th</sup>, 2020
19. Invited Talk, Battery Seminar, Royal Society of Chemistry (RSC), Virtual, July 21<sup>st</sup>, 2020
20. Seminar Talk, The Electrochemical Society (ECS) San Francisco Section, Virtual, May 18<sup>th</sup>, 2020
21. Seminar talk, Thermo Fisher Scientific, Virtual, April 29<sup>th</sup>, 2020
22. Invited Talk, Royal Society of Chemistry (RSC), Virtual, March 27<sup>th</sup>, 2020
23. Invited Talk, "The Future of Energy Storage," Frontiers of Science Webinar Series, The New York Academy of Sciences (NYAS), Virtual, March 23<sup>rd</sup>, 2020
24. Invited Talk, Gordon Research Conference (GRC), Ventura, CA, February 16<sup>th</sup>-21<sup>st</sup>, 2020
25. Seminar Talk, University of California Los Angeles, February 7<sup>th</sup>, 2020
26. Invited Talk, Gordon Research Conference on Electrochemistry, Ventura, CA, January 7<sup>th</sup>, 2020
27. Colloquium Talk, Pritzker School of Molecular Engineering, University of Chicago, January 14<sup>th</sup>, 2020
28. Keynote Talk, Materials Research Meeting (MRM), Yokohama, Japan, December 11<sup>th</sup>, 2019
29. Invited Talk, Symposium EN02, MRS Fall, Boston, MA, December 2<sup>nd</sup>, 2019.
30. Seminar Talk, College de France, Paris, France, October 18<sup>th</sup>, 2019

31. Plenary Talk, Li Battery Discussions (LiBD), Bordeaux, France, September 16<sup>th</sup>, 2019.
32. Invited Talk, Symposium ENFL, ACS Annual Meeting, Sand Diego, August 26<sup>th</sup>, 2019.
33. Invited Talk, Symposium N, 10th International Conference on Materials for Advanced Technologies, ICMAT, Singapore, June 26<sup>th</sup>, 2019
34. Keynote talk, LG Chem Open Innovation Forum 2019, Seoul, South Korea May 9<sup>th</sup>, 2019
35. Invited talk, Lithium Battery International Summit (LIBS), 2019, Shenzhen, China, May 7<sup>th</sup>, 2019
36. Seminar Talk, ETH, Zurich, Switzerland, Feb. 19<sup>th</sup>, 2019.
37. Keynote talk, Center for ElectroChemistry (CEC) 2019 Annual Workshop, Austin, Texas, USA, Feb 10<sup>th</sup>, 2019.
38. Keynote talk, International Coalition for Energy Storage and Innovation (ICESI) and Pacific Power Source Symposium Joint Meeting, Kona Hawaii, USA, January 8<sup>th</sup>, 2019
39. Invited talk, Materials Research Society MRS Fall 2018, Boston, MA, USA, Nov. 28<sup>th</sup>, 2018
40. Invited talk, 11th International Conference on Advanced Lithium Batteries for Automobile Applications (ABAA), Huzhou, China, October 13<sup>th</sup>, 2018
41. Award Talk, ACS, Boston, August 21<sup>st</sup>, 2018
42. Invited talk, Symposium on Advanced Batteries and Supercapacitors for Energy Storage, 12<sup>th</sup> International Conference on Ceramic Materials, Singapore, July 25<sup>th</sup>, 2018
43. Keynote talk, International Meeting on Lithium Batteries (IMLB) 2018, Kyoto, Japan, June 18<sup>th</sup>, 2018
44. Invited talk, Advanced Automotive Battery Conference, San Diego, CA, USA, June 5<sup>th</sup>, 2018
45. Department Colloquium, Nuclear Engineering and Materials Science and Engineering, MIT, April 27<sup>th</sup>, 2018.
46. Seminar, School of Engineering and Applied Sciences, Harvard University, April 25<sup>th</sup>, 2018
47. Invited talk, Symposium on Safe and High Energy Batteries, Materials Research Society MRS, Phoenix, AZ, April 4<sup>th</sup>, 2018
48. Discussion Leader, Gordon Research Conference (GRC) on Batteries, Ventura, CA, USA, Feb. 27<sup>th</sup> – March 1<sup>st</sup>, 2018
49. Keynote talk, International Battery Association (IBA) Meeting, Jeju, South Korea, March 12-15<sup>th</sup>, 2018.
50. Invited talk, Munich Battery Discussion Meeting, Munich, Germany, February 19-20<sup>th</sup>, 2018
51. Keynote talk, Nature Conference on Electrochemical Energy Systems, Shenzhen, China, January 13-15<sup>th</sup>, 2018.
52. Department of Chemical & Biological Engineering Colloquium, Princeton University, November 29, 2017.
53. Invited talk, 10<sup>th</sup> International Conference on Advanced Lithium Batteries for Automobile Applications (ABAA), Chicago, USA, October 23<sup>rd</sup>, 2017.
54. Invited talk, Symposium on advanced characterization in honor of Dr. Frank McLarnon, Electrochemical Society Meeting, National Harbor, October 3<sup>rd</sup>, 2017.
55. Department of Energy & Environmental Materials, School of Materials Science and Engineering, Beijing Institute of Technology, China, September 2<sup>nd</sup>, 2017.
56. Keynote talk, International Union of Materials Research Society – The 15<sup>th</sup> International Conference on Advanced Materials (IUMRS-ICAM), Kyoto, Japan, August 31<sup>st</sup>, 2017
57. Department of Chemistry, Dalhousie University, Halifax, Canada, August 22<sup>nd</sup>, 2017
58. Materials Science & Engineering Department Seminar, Stanford University, May 5<sup>th</sup>, 2017
59. US China Electric Vehicle Battery Technology (EVBT), Zhuhai, China, April 17<sup>th</sup>, 2017
60. 3<sup>rd</sup> International Forum on Cathode and Anode Materials for Advanced Batteries, Ningbo, China, April 14<sup>th</sup>, 2017

61. Keynote talk, International Battery Association (IBA), Nara, Japan, March 6<sup>th</sup>, 2017
62. Chinese University of Hong Kong, Physics Department Colloquium, March 2<sup>nd</sup>, 2017
63. Hong Kong Polytechnic University Colloquium, February 28<sup>th</sup>, 2017
64. 9<sup>th</sup> ABAA International Conference on Advanced Lithium Batteries for Automotive Applications, Huzhou, China, October 18<sup>th</sup>, 2016.
65. 18th International Meeting of Lithium Batteries, Chicago, IL, June 20<sup>th</sup>, 2016
66. Department of Materials Science & Engineering seminar, University of California Santa Barbara, May 27<sup>th</sup>, 2016
67. Sino-American Technology & Engineering Conference, Wuhu, China, May 16<sup>th</sup>, 2016
68. Department of Physics seminar, University of Houston, Houston, TX, April 25<sup>th</sup>, 2016
69. Department of Physics and Applied Physics seminar, Nanyang Technological University, Singapore, March 25<sup>th</sup>, 2016
70. Symposium EE7, Materials Research Society (MRS), Spring Meeting, Phoenix, AZ, March 31<sup>st</sup>, 2016
71. Munich Battery Discussion Meeting by BMW, Munich, Germany, March 14<sup>th</sup>, 2016
72. 2016 Gordon Research Conference (GRC) on Batteries, Ventura California, February 22<sup>nd</sup>, 2016
73. 3<sup>rd</sup> Euro-Mediterranean Conference on Materials and Renewable Energies (EMCMRE-3), Marrakech, Morocco, November 2-6<sup>th</sup>, 2015
74. International Society of Electrochemistry (ISE), Hong Kong Satellite Meeting and Taipei Annual Meeting, Oct 3-6, 2015.
75. 2<sup>nd</sup> International Forum on Anode & Cathode Materials for Advanced Batteries, Hangzhou, China, April 22<sup>nd</sup>, 2015.
76. 10<sup>th</sup> China-US Battery Workshop, Beijing, China Mar 30<sup>th</sup>, 2015.
77. Mechanical Engineering Seminar, Princeton University, Dec 5<sup>th</sup>, 2014
78. Symposium Z, Materials Research Society MRS Fall Meeting, Boston, Dec 3<sup>rd</sup>, 2014
79. 55<sup>th</sup> Japan Battery Symposium, Kyoto, Japan, Nov 20<sup>th</sup>, 2014.
80. 226<sup>th</sup> Electrochemical Society Meeting (ECS), Cancun, Mexico, Oct 7<sup>th</sup>, 2014.
81. Frontier of Engineering, National Academia of Engineering, Irvine, CA, Sep. 12<sup>th</sup>, 2014.
82. XXIII International Materials Research Congress, Cancun, Mexico, August 17<sup>th</sup>, 2014.
83. Gordon Research Conference on Electrodeposition, New Hampshire, ME, July 30<sup>th</sup>, 2014.
84. Argonne National Lab Chemical Engineering Division Colloquium Talk, May 6<sup>th</sup>, 2014.
85. International Battery Association (IBA) Meeting, Melbourne, Australia, March 4<sup>th</sup>- 7<sup>th</sup>, 2014.
86. Department of Physics and Atmospheric Science, Dalhousie University, December 9<sup>th</sup>, 2013.
87. Materials Research Society Meeting, Symposium CC, Boston, December 4<sup>th</sup>, 2013.
88. Institute for Pure and Applied Mathematics, Materials for a Sustainable Energy Future Program, Los Angeles, September 9<sup>th</sup>, 2013.
89. 7<sup>th</sup> International Conference on Materials for Advanced Technologies (ICMAT), July 4<sup>th</sup>, Singapore 2013.
90. Massive Energy Storage, Engineering Conferences International, Newport Beach, CA, June 24<sup>th</sup>, 2013.
91. PacRim American Ceramics Society Meeting, Coronado Island, CA, June 5<sup>th</sup>, 2013.
92. Department of Materials Science and Engineering, UC Riverside, CA, May 29<sup>th</sup>, 2013.
93. International Battery Association (IBA) meeting, Barcelona, Spain, March 11<sup>th</sup>, 2013.
94. Funding Program for World-leading Innovative R&D on Science and Technology (FIRST) "Innovative Basic Research Toward Creation of High-performance Battery" Tokyo, Japan, January 17<sup>th</sup>, 2013.
95. "Big Energy Seminar Series", University of Colorado Boulder, November 8<sup>th</sup>, 2012.

96. European Microscopy Congress, Manchester, UK, September 19<sup>th</sup>, 2012.
97. International Conference of Young Researchers on Advanced Materials, ICYRAM, Electrochemical Energy Session, Singapore, July 2<sup>nd</sup>, 2012.
98. HRL Laboratories Colloquium, Malibu CA, June 21<sup>st</sup>, 2012.
99. Materials Research Society, Symposium O Invited talk, San Fransisco, CA, April 12<sup>th</sup> 2012.
100. Center for Computational Sciences, University of Kentucky, March 21<sup>st</sup>, 2012.
101. Taipei Forum on Large-Format Power Lithium Batteries, Taipei, February 15<sup>th</sup>, 2012.
102. International Battery Association (IBA) meeting, Kona, Hawaii, January 12<sup>th</sup>, 2012.
103. Gordon Research Conference (GRC) on Electrochemistry, Ventura, CA, January 11<sup>th</sup>, 2012.
104. Ningbo-2011 International Symposium on Development and Commercialization of Power Lithium-ion Batteries, China, November 10<sup>th</sup>, 2011.
105. Department of Materials Science and Engineering, Seoul National University, Korea, August 12<sup>th</sup>, 2011.
106. Department of Materials Science and Engineering, Northwestern University, May 23<sup>rd</sup>, 2011.
107. Department of Chemical Engineering and Materials Science, UC Irvine, April 1<sup>st</sup>, 2011.
108. Department of Materials Science and Engineering, UCLA, October 29<sup>th</sup>, 2010.
109. Symposium B4 Electrode-Electrolyte Interfaces in Li-ion Batteries, Electrochemical Society Meeting Fall 2010, Las Vegas, October 11-14<sup>th</sup>, 2010.
110. Gordon Research Conference, Solid State Studies in Ceramics, New Hampshire, August 15-17<sup>th</sup>, 2010.
111. UCSD Research Expo, April 15, 2010.
112. Materials Science & Technology 2009 Conference, Pittsburgh, Oct. 27, 2009.
113. State Key Lab for Physical Chemistry of Solid Surfaces, Xiamen University, China, June 25, 2009.
114. Department of Physics, Chinese University of Hong Kong, June 22, 2009.
115. Oak Ridge National Laboratory, USA, May 28, 2009.
116. CERMACS Annual Meeting, American Chemical Society, Cleveland, Ohio, May 22, 2009.
117. Florida Institute of Sustainable Energy (FISE) Seminar, March 16, 2009.
118. Department of NanoEngineering, University of California San Diego, December 8, 2008.
119. Materials Science and Technology 2008 Conference, Pittsburg, Pennsylvania, October 6, 2008.
120. Department of Materials Science and Engineering, University of Michigan, September 26, 2008.
121. International Materials Research Congress (IMRC), Annual Conference, Cancun, Mexico, August 18-21, 2008.
122. Korea Electrotechnology Research Institute (KERI), Pusang, Korea, July 7, 2008.
123. National Taiwan University of Science and Technology, Taipei, Taiwan, June 20, 2008.
124. International Meeting for Lithium Batteries (IMLB) 2008, Tianjin, China, June 22-27, 2008.
125. International Materials Research Congress (IMRC), Annual Conference, Cancun, Mexico, October 28-30, 2007.
126. University of Bordeaux, ICMCB, France, September 27, 2007.
127. CSIRO Energy Technology, Commonwealth Scientific and Industrial Research Organization (CSIRO), Melbourne, Australia, July 24-25, 2007.
128. Department of Physics, University of California Davis, April 9 – 10, 2007.
129. Nanoscience and Nanoengineering Institute and Department of Materials Science and Engineering, University of California Berkeley, January 25, 2007.
130. Department of Materials Science and Engineering, University of Florida, January 18, 2007.
131. Department of Physics, Chinese University of Hong Kong, September 1, 2006.

132. State Key Lab for Physical Chemistry of Solid Surfaces, Xiamen University, China, Aug 31, 2006.
133. The 7<sup>th</sup> China International Battery Fair, Beijing, China June 28-30, 2006.
134. Lawrence Livermore National Laboratory, USA, June 9, 2006.
135. Department of Materials Science and Engineering, Stanford University, Palo Alto, June 5, 2006.
136. Industrial Technology Research Institute ITRI, Taiwan, May 19, 2006.
137. International Battery Association – Hawaii Battery Conference (IBA-HBC), Hawaii, USA, Jan 9-13, 2006.
138. Department of Mechanical Engineering, University of Texas, Austin, May 5, 2005.

#### g. Synergistic Activities

**Inaugural Director of Institute for Materials Discovery and Design** (<https://imdd.ucsd.edu/>) a joint initiative of the Jacobs School of Engineering and Division of Physical Sciences at the University of California San Diego. The Institute's unique approach will be to apply data analytics and machine learning together with rapid materials synthesis and multi-scale characterization in order to accelerate the discovery, design, synthesis and evaluation of novel functional materials.

**Founding Director of Sustainable Power and Energy Center** (<http://spec.ucsd.edu>) The SPEC consists more than fifteen faculty members from interdisciplinary fields, who all focus on making breakthroughs in distributed energy generation, storage and the accompanying integration-management systems.

**Editor in Chief – MRS Energy & Sustainability 2019 to present**

**Technical Editor– Journal of Power Sources** (IF 6.7) 2015 to 2019

**Associate Editor–NPG Asia Materials** (IF 9.0) 2012-2015

**Editorial Board Member** - Ionics (IF 1.7) Sustainable Energy and Fuels (new journal 2016), Advanced Energy Materials (IF 21.8), Chemical Society Reviews (IF 40.18) and Chemical Reviews (IF 47.9)

**Guest Editor** – First focused issue for *Journal of the Electrochemical Society (JES)* on "Intercalation Compounds" (co-editor, Stanley Whittingham)

**Guest Editor – Focused issue for MRS Bulletin** on "Frontier in In Situ TEM" (co-editors, Haimei Zheng and Yimei Zhu)

**Regular reviewer** for Journal of American Chemical Society, Chemistry of Materials, Journal of the Electrochemical Society, Electrochemical and Solid-State Letters, Solid State Ionics, Journal of Materials Research, Journal of Physical Chemistry, Advanced Energy Materials, ACS Nano and Energy and Environmental Science, Nature Communications, Nature Energy, Nature Chemistry and Science.

**Panel reviewer** for National Science Foundation and Department of Energy, USA and various overseas funding agencies including Hong Kong Council of Research, German Research Foundation, Israel Science Foundation and Canada Foundation for Innovation, Swiss National Science Foundation, Singapore A\*STAR

**Advisory Board Member** for Energy Quarterly EQ, MRS, 2017 – now

**Member-at-large (Elected)** for Battery Division of the Electrochemical Society (>1500 members), USA, 2010-2012

**Treasurer (Elected)** for Battery Division of the Electrochemical Society, USA, 2014-2016. Successfully raised funding for KM Abraham Student Travel Awards and MTI Postdoc Research Awards.

**Secretary (Elected)** for Battery Division of the Electrochemical Society, USA, 2016 – 2018

**Vice Chair (Elected)** for Battery Division of the Electrochemical Society, USA, 2018 – 2020

**Chair** for Battery Division of the Electrochemical Society, USA, 2020 - now

**Executive Board Member and Treasurer** for International Battery Association (IBA), 2017 - now

**Lead Organizer –**

- Symposium in Honor of 2019 Chemistry Nobel Laureate Dr. Stanley Whittingham, PRIME meeting and Electrochemical Society Meeting, October 1-6, 2020.
- Chairperson for International Battery Association IBA2019 <http://iba-2019.org/> Annual Meeting, La Jolla, March 3-8<sup>th</sup>, 2019.
- Symposium “Lithium Ion Batteries”, Electrochemical Society (ECS) 234<sup>th</sup> Meeting, Cancun Mexico, October 1-5<sup>th</sup>, 2018.
- US China Electric Vehicle Battery Technology Workshop, La Jolla, CA, April 8-10<sup>th</sup>, 2018, 2018.
- Symposium “Lithium Ion Batteries”, Electrochemical Society (ECS) 232<sup>nd</sup> Meeting, National Harbor MD, October 1-5<sup>th</sup>, 2017.
- Ceramics for Energy Workshop, Sponsored by National Science Foundation, San Diego, June 3-4<sup>th</sup>, 2016.
- Symposium “High-Energy Li-Ion Intercalation Materials”, Electrochemical Society (ECS) 228<sup>th</sup> Meeting, Phoenix AZ, Oct 11-15, 2015.
- Symposium “Lithium Ion Batteries”, Electrochemical Society (ECS) Fall 226<sup>th</sup> Meeting, Cancun, Mexico, October 6-10<sup>th</sup>, 2014.
- Symposium “Batteries and Fuel Cell Technologies: Challenges and Solutions Towards Global Stewardships” 248<sup>th</sup> American Chemical Society ACS National Meeting and Exhibition, San Francisco, USA, August 10-14<sup>th</sup>, 2014.
- Symposium N “Frontier in Energy Storage”, Materials Research Society (MRS), San Francisco, USA, April 20-25<sup>th</sup>, 2014.
- Symposium on “Computation Science on Battery Materials”, Electrochemical Society (ECS) Fall 224<sup>th</sup> meeting, San Francisco, USA, October 27-November 1, 2013.
- Symposium on “Design and Modeling of Battery Materials”, Electrochemical Society (ECS) Spring 223<sup>rd</sup> meeting, Toronto, Canada, May 12-14, 2013.
- Advances in Batteries, American Chemical Society (ACS) Fall Meeting, Philadelphia, August 23-24<sup>th</sup>, 2012.
- Intercalation Compounds Symposium B4, **Electrochemical Society (ECS)** Fall 222<sup>nd</sup> meeting, Honolulu, October 7-12, 2012.
- Functional Ceramics for Energy Storage & Conversion for the Electronic Materials and Applications (EMA) 2011 Conference, Orlando January 19-21, 2011.
- International Lecture Series on Materials Design and Development for Energy Storage and Conversion, Taipei May15-18, 2006

**Co-Organizer –** Symposium EN07, Materials Research Society Meeting (MRS), April 2020. Symposium A03 Li ion Battery, 233<sup>rd</sup> Electrochemical Society Meeting (ECS) Seattle, May 2018. Symposium S6 for 37<sup>th</sup> International Conference and Expo on Advanced Ceramics and Composites (ICACC), Daytona, Jan 27- Feb 1, 2013. Symposium B6 for Electrochemical Society Meeting (ECS), Boston, October 9-14<sup>th</sup>, 2011. Symposium L for Materials Research Society Meeting (MRS), April 25-29<sup>th</sup>, 2011. Symposium B8 for Electrochemical Society Meeting (ECS), Las Vegas, October 11-14<sup>th</sup>, 2010. Functional Ceramics for Energy Storage & Conversion (Symposium 5) for the Electronic Materials and Applications (EMA) Conference, Orlando January 20-22<sup>nd</sup>, 2010.

**Faculty Advisor –** Society for Green Mobility, University of Florida, 2008-2009

**Founding Faculty Advisor –** ECS Student Chapter, UCSD, 2014 – present (founded in June 2014)

**h. Collaborators and Co-Editors**

Dr. Clare P. Grey (SUNY Stony Brook, USA and Cambridge University, UK), Dr. Krystyn Van Vleet and Dr. Yang Shao-Horn (Massachusetts Institute of Technology, USA) Dr. Nancy Dudney, Dr. Gabriel Veith and Dr. Miaofang Chi (Oak Ridge National Laboratory, USA) Dr. Bing-Joe Hwang (National Taiwan University of Science and Technology) Dr. Jordi Cabana (University of Illinois Chicago, USA) Dr. Quan Li (Chinese Hong Kong University, China) Dr. Anton Van der Ven (UC Santa Barbara) Dr. Sungho Jin, Dr. Joseph Wang, Dr. Oleg Shpyrko, Dr. ShyuePing Ong, Dr. Michael Sailor, Dr. Seth Cohen, Dr. Eric Fullerton (UC San Diego) Dr. Elena Arroyo (University of Madrid, Spain) Dr. Feng Wang, Dr. Huolin Xin, Dr. Yimei Zhu and Dr. Xiao-Qing Yang (Brookhaven National Laboratory, USA) Dr. Karena Chapman and Dr. Ross Harder (Argonne National Lab, USA), Dr. Stanley Whittingham (State University of New York, Binghamton, USA) Dr. Dan Steingart (Princeton University, USA) Dr. Haimei Zheng and Dr. Marca Doeff (Lawrence Berkeley National Lab, USA) Dr. Chuan Wu (Beijing Institute of Technology, China) Dr. Andrej Singer (Cornell University) Dr. Feng Lin (Virginia Tech University)

#### i. Media Coverage

ABC News (The Future of Cars) – February 15<sup>th</sup>, 2021

<https://www.abc.net.au/radionational/programs/futuretense/hype-versus-reality-future-of-cars-v1/13113238>

UCSD News (NASA Grant) – February 12<sup>th</sup>, 2021

<https://ucsdnews.ucsd.edu/pressrelease/engineers-earn-nasa-grant-to-enable-flying-taxis>

Science Daily (flexible, rechargeable silver oxide-zinc battery) – December 7<sup>th</sup>, 2020

<https://www.sciencedaily.com/releases/2020/12/201207112246.htm>

Reuters (Commentary on Tesla) – September 23<sup>rd</sup>, 2020

<https://www.reuters.com/article/us-tesla-battery-factbox/tesla-could-struggle-to-implement-some-of-its-battery-advances-experts-say-idINKCN26E3J4>

Advanced Science News Interview – September 8<sup>th</sup>, 2020

<https://www.advancedsciencenews.com/shirley-meng-this-is-materials-science-it-is-the-bread-and-butter-of-our-work/>

AZO Materials (The Role of Electron Microscopy in Battery Research) – September 3<sup>rd</sup>, 2020

<https://www.azom.com/article.aspx?ArticleID=19559>

The Driven (Tesla & glassy metal battery research) – July 7<sup>th</sup>, 2020

<https://thedriven.io/2020/07/28/tesla-could-reap-benefits-of-truly-exciting-glassy-metal-battery-research/>

MRS Energy & Sustainability – December 5<sup>th</sup>, 2019

<https://www.youtube.com/watch?v=fcgxr2fmb3M>

ECS Interview (Shirley Meng: Becoming an Engineer) – February 28<sup>th</sup>, 2019

<https://www.electrochem.org/ecs-blog/shirley-meng-becoming-an-engineer/>

Green Connections Radio (Eco-Battery Technologies) – October 14<sup>th</sup>, 2017

<http://greenconnectionsradio.com/eco-battery-technologies-shirley-meng-u-c-san-diego-sustainable-power-energy-center/>

Qualcomm (Inside Innovation: The Global Race for Better Batteries) – March 2<sup>nd</sup>, 2017

<https://www.youtube.com/watch?v=6WSwyBs0axc&feature=youtu.be>

Empowered Series Blog

<https://www.empoweredtheseries.com/shirley-meng>

Rebellion Research Interview

<https://www.rebellionresearch.com/blog/the-future-of-batteries-electric-cars-and-sustainable-energy->

[a](#)

About Zero Carbon Future

<https://www.universityofcalifornia.edu/news/achieving-zero-carbon-future>

About New Research Direction

<https://www.inverse.com/article/51558-could-the-future-be-powered-by-salt-this-researcher-thinks-it-s-possible>

<https://www.sciencedaily.com/releases/2017/06/170615142736.htm>

<https://www.sciencedaily.com/releases/2016/07/160706175335.htm>

[http://jacobsschool.ucsd.edu/news/news\\_releases/release.sfe?id=2042](http://jacobsschool.ucsd.edu/news/news_releases/release.sfe?id=2042)

<https://www.electrochem.org/the-future-of->

[batteries/?utm\\_source=Informz&utm\\_medium=Email&utm\\_campaign=ECS+Website](https://www.electrochem.org/the-future-of-batteries/?utm_source=Informz&utm_medium=Email&utm_campaign=ECS+Website)

About SPEC (Sustainable Power and Energy Center)

[http://jacobsschool.ucsd.edu/news/news\\_releases/release.sfe?id=1998](http://jacobsschool.ucsd.edu/news/news_releases/release.sfe?id=1998)

<http://www.kpbs.org/news/2015/oct/15/san-diego-researchers-push-build-better-batteries/>

<http://ucsdnews.ucsd.edu/pressrelease/uc-san-diego-part-of-new-doe-consortium-to-revolutionize-electric-car-batte>

Guest appearance on NOVA documentary Aired February 1, 2017 on PBS

<http://www.pbs.org/wgbh/nova/tech/super-battery.html>

Sodium Ion Batteries – funded by NSF

<https://www.inverse.com/article/51558-could-the-future-be-powered-by-salt-this-researcher-thinks-it-s-possible>

Times magazine

<https://time.com/4970269/batteries-next-target-china-clean-energy-conquest/>

Physics today

<https://physicstoday.scitation.org/doi/10.1063/PT.3.4359?af=R&feed=most-recent>

Reuters

<https://www.reuters.com/article/us-autos-tesla-batteries-exclusive/exclusive-teslas-secret-batteries-aim-to-rework-the-math-for-electric-cars-and-the-grid-idUSKBN22Q1WC>