

YING SHIRLEY MENG, PH.D.**Professor**

The Pritzker School of Molecular Engineering
University of Chicago
shirleymeng@uchicago.edu (email)

(a) Professional Preparation

Nanyang Technological University, Singapore	B.A.Sc (Matl. Eng.)	1996 – 2000
Singapore-MIT Alliance, National University of Singapore	Ph.D	2000 – 2005
Massachusetts Institute of Technology	Postdoc	2005 – 2007

(b) Appointments

2022 - Now Professor, The Pritzker School of Molecular Engineering (PME), University of Chicago
2022 - Now Chief Scientist, The Argonne Collaborative Center for Energy Storage Science (ACCESS)
2022 - Now Adjunct professor, NanoEngineering, University of California, San Diego
2019 – 2021 Inaugural Director, Institute of Materials Discovery and Design (IMDD)
2017 – 2022 Professor, NanoEngineering, University of California, San Diego
2015 – 2020 Found Director, Sustainable Power and Energy Center (SPEC)
2013 – 2017 Associate Professor, NanoEngineering, University of California, San Diego
2009 – 2013 Assistant Professor, NanoEngineering, University of California, San Diego
2008 – 2009 Assistant Professor, Materials Science and Engineering, University of Florida
2007 – 2008 Research Scientist, Materials Sci & Eng, Massachusetts Institute of Technology

* Dr. Meng has a three-year transition plan set between UC San Diego and University of Chicago.

During this period, Dr. Meng keeps her labs/facilities/equipment at San Diego to ensure the planned projects (this work is one of them) go as planned. Both universities are committed to ensure the students/postdocs carry out their planned research and leverage resources in both places. Dr. Meng has no teaching duties during the transition period and will fully focus on the research.

c. Awards and Honors

2022, Fellow of American Association for the Advancement of Science (AAAS)
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 & 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 & 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 259, H-index 91, info from Google Scholar, *corresponding author)

1. M. Zhang, D. A. Kitchaev, Z. Lebens-Higgins, J. Vinckeviciute, M. Zuba, P. J. Reeves, C. P. Grey, M. S. Whittingham, L. F. J. Piper, A. Van der Ven and Y. S. Meng, "Pushing the limit of 3d transition metal-based layered oxides that use both cation and anion redox for energy storage", **Nat. Rev. Mater.** 2022, ASAP
2. J. J. Huang, D. Weinstock, H. Hirsh, R. Bouck, M. Zhang, O. Y. Gorobtsov, M. Okamura, R. Harder, W. Cha, J. P. C. Ruff, Y. S. Meng and A. Singer, "Disorder Dynamics in Battery Nanoparticles During Phase Transitions Revealed by Operando Single-Particle Diffraction", **Adv. Energy Mater.** 2022, 2103521
3. Y. Li, W. Li, R. Shimizu, D. Cheng, H. Nguyen, J. Paulsen, S. Kumakura, M. Zhang and Y. S. Meng, "Elucidating the Effect of Borate Additive in High-Voltage Electrolyte for Li-Rich Layered Oxide Materials", **Adv. Energy Mater.** 2022, 2103033
4. D. Cheng, B. Lu, G. Raghavendran, M. Zhang and Y. S. Meng, "Leveraging cryogenic electron microscopy for advancing battery design", **Matter**, 2022, 5, 26–42
5. D. Weinstock, H. S. Hirsh, O. Y. Gorobtsov, M. Zhang, J. Huang, R. Bouck, J. P. C. Ruff, Y. S. Meng and A. Singer, "Structure-Selective Operando X-ray Spectroscopy", **ACS Energy Lett.** 2022, 7, 261–266
6. B. Sayahpour, H. Hirsh, S. Bai, N. B. Schorr, T. N. Lambert, M. Mayer, W. Bao, D. Cheng, M. Zhang, K. Leung, K. L. Harrison, W. Li and Y. S. Meng, "Revisiting Discharge Mechanism of CFX as a High Energy Density Cathode Material for Lithium Primary Battery", **Adv. Energy Mater.** 2021, 2103196
7. C. Yin, Z. Wei, M. Zhang, B. Qiu, Y. Zhou, Y. Xiao, D. Zhou, L. Yun, C. Li, Q. Gu, W. Wen, X. Li, X. Wen, Z. Shi, L. He, Y. S. Meng, Z. Liu, "Structural insights into composition design of Li-rich layered cathode materials for high-energy rechargeable battery", **Materials Today**, 2021, 51, 12-15
8. G. M. Hobold, J. Lopez, R. Guo, N. Minafra, A. Banerjee, Y. S. Meng, Y. Shao-Horn and B. M. Gallant, "Moving beyond 99.9% Coulombic efficiency for lithium anodes in liquid electrolytes", **Nature Energy**, 2021, 6, 951–960
9. B. Han, X. Li, S. Bai, Y. Zou, B. Lu, M. Zhang, X. Ma, Z. Chang, Y. S. Meng, M. Gu, "Conformal three-dimensional interphase of Li metal anode revealed by low-dose cryo electron microscopy", **Matter**, 2021, 4, 1-12
10. E. A. Cheung, H. Nguyen, H. Tang, A. P. J. Stampfl, M. Avdeev, Y. S. Meng, N. Sharma and N. R. de Souza, "Structure and Dynamics in Mg²⁺ Stabilized γ -Na₃PO₄", **J. Am. Chem. Soc.** 2021, 143, 41, 17079–17089
11. W. Bao, C. Fang, D. Cheng, Y. Zhang, B. Lu, D. H. S. Tan, R. Shimizu, B. Sreenarayanan, S. Bai, W. Li, M. Zhang and Y. S. Meng, "Quantifying lithium loss in amorphous silicon thin-film anodes via titration-gas chromatography", **Cell Reports Physical Science**, 2021, 2, 100597
12. E. Zhao, L. He, Z. Zhang, J. Doux, D. H. S. Tan, E. A. Wu, G. Deysler, Y. Chen, J. Zhao, F. Wang and Y.

- S. Meng, "New insights into Li distribution in the superionic argyrodite Li₆PS₅Cl", **Chem. Comm.** 2021, 57, 10787 – 10790
13. C. Fang, B. Lu, G. Pawar, M. Zhang, D. Cheng, S. Chen, M. Ceja, J-M Doux, H. Musrock, M. Cai, B. Liaw, **Y. S. Meng***, "Pressure-tailored lithium deposition and dissolution in lithium metal batteries", **Nature Energy**, 2021 6, 987–994
 14. D. H. S. Tan, Y-T Chen, H. Yang, W. Bao, B. Sreenarayanan, J-M Doux, W. Li, B. Lu, S-Y Ham, B. Sayahpour, J. Scharf, E. A. Wu, G. Deysher, H. E. Han, H. J. Hah, H. Jeong,²J. B. Lee, Z. Chen¹ and **Y. S. Meng***, "Carbon Free High Loading Silicon Anodes Enabled by Sulfide Solid Electrolytes", **Science**, 2021, 373, 1494–1499.
 15. M. Kim, N. Ahn, D. Cheng, M. Xu, S. Ham, X. Pan, S. J. Kim, Y. Luo, D. P. Fenning, D. H. S. Tan, M. Zhang, G. Zhu, K. Jeong, M. Choi and Y. S. Meng, "Imaging Real-Time Amorphization of Hybrid Perovskite Solar Cells under Electrical Biasing", **ACS Energy Lett.** 2021, 6, 3530–3537
 16. H. S. Hirsh, B. Sayahpour, A. Shen, W. Li, B. Lu, E. Zhao, M. Zhang and *Y. S. Meng, "Role of electrolyte in stabilizing hard carbon as an anode for rechargeable sodium-ion batteries with long cycle life", **Energy Storage Materials**, 2021, 42, 78–87
 17. J. Scharf, L. Yin, C. Redquest, R. Liu, X. L. Quinn, J. Ortega, X. Wei, J. Wang, J. Doux and *Y. S. Meng, "Investigating Degradation Modes in Zn-AgO Aqueous Batteries with In Situ X-Ray Micro Computed Tomography", **Adv. Energy Mater.** 2021, 2101327
 18. A. Grenier, G. E. Kamm, Y. Li, H. Chung, Y. S. Meng and K. W. Chapman, "Nanostructure Transformation as a Signature of Oxygen Redox in Li- Rich 3d and 4d Cathodes", **J. Am. Chem. Soc.** 2021, 143, 5763–5770
 19. B. Lu, E. Olivera, J. Scharf, M. Chouchane, C. Fang, M. Ceja, L. E. Pangilinan, S. Zheng, A. Dawson, D. Cheng, W. Bao, O. Arcelus, A. A. Franco, X. Li, S. H. Tolbert & Y. S. Meng, "Quantitatively Designing Porous Copper Current Collectors for Lithium Metal Anodes", **ACS Appl. Energy Mater.** 2021, ASAP
 20. B. Dyatkin & Y. S. Meng, "COVID-19 disrupts battery materials and manufacture supply chains, but outlook remains strong", **MRS Bulletin**, 2021, 45, 700–702
 21. G. Cai, Y. Yin, D. Xia, A. A. Chen, J. Holoubek, J. Scharf, Y. Yang, K. H. Koh, M. Li, D. M. Davies, M. Mayer, T. H. Han, Y. S. M, T. A. Pascal & Z. Chen, "Sub-nanometer confinement enables facile condensation of gas electrolyte for low-temperature batteries", **Nature Comm.** 2021, 12, 3395
 22. C. M. Efav, B. Lu, Y. Lin, G. M. Pawar, P. R. Chinnam, M. F. Hurley, E. J. Dufek, Y. S. Meng, B. Li, "A closed-host bi-layer dense/porous solid electrolyte interphase for enhanced lithium-metal anode stability", **Materials Today**. 2021, ASAP
 23. Y. Cho, M. Li, J. Holoubek, W. Li, Y. Yin, Y. S. Meng and Z. Chen, "Enabling the Low-Temperature Cycling of NMC||Graphite Pouch Cells with an Ester- Based Electrolyte", **ACS Energy Lett.** 2021, 6, 2016–2023
 24. H. Hirsh, Y. Li, J. Cheng, R. Shimizu, M. Zhang, E. Zhao and *Y. S. Meng, "The Negative Impact of Transition Metal Migration on Oxygen Redox Activity of Layered Cathode Materials for Na-Ion Batteries", **Journal of The Electrochemical Society**. 2021, 168, 040539
 25. Y. Chen, M. Duquesnoy, D. H. S. Tan, J. Doux, H. Yang, G. Deysher, P. Ridley, *A. A. Franco, *Y. S. Meng and *Z. Chen, "Fabrication of High-Quality Thin Solid-State Electrolyte Films Assisted by Machine Learning", **ACS Energy Lett.** 2021, 6, 1639–1648
 26. P. Albertus, V. Anandan, C. Ban, N. Balsara, I. Belharouak, J. Buettner-Garrett, Z. Chen, C. Daniel, M. Doeff, N. J. Dudney, B. Dunn, S. J. Harris, S. Herle, E. Herbert, S. Kalnaus, J. A. Libera, D. Lu, S. Martin, B. D. McCloskey, M. T. McDowell, Y. S. Meng, J. Nanda, J. Sakamoto, E. C. Self, S. Tepavcevic, E. Wachsman, C. Wang, A. S. Westover, J. Xiao & T. Yersak, "Challenges for and Pathways toward Li-Metal- Based All-Solid-State Batteries", **ACS Energy Letters**, 2021, 6, 4, 1399–1404

27. X. Wang, Y. Yang, C. Lai, R. Li, H. Xu, D. H. S. Tan, K. Zhang, W. Yu, O. Fjeldberg, M. Lin, W. Tang, Y. S. Meng & K. P. Loh, "Dense-stacking porous conjugated polymer as reactive-type host for high performance lithium sulfur batteries", **Angew. Chem. Int. Ed.** 2021, 60, 11359–11369
28. S. Zhao, D. Xia, M. Li, D. Cheng, K. Wang, Y. S. Meng, Z. Chen & J. Bae, "Self-Healing and Anti-CO₂ Hydrogels for Flexible Solid-State Zinc-Air Batteries", **ACS Applied Materials & Interfaces**, 2021, 13, 10, 12033–12041
29. D. M. Davies, Y. Yang, E. S. Sablina, Y. Yin, M. Mayer, Y. Zhang, M. Olguin, J. Z. Lee, B. Lu, D. Damien, O. Borodin, C. S. Rustomji & Y. S. Meng, "A Safer, Wide-Temperature Liquefied Gas Electrolyte Based on Difluoromethane", **Journal of Power Sources**, 2021, 493, 229668
30. J. Kim, X. Zhang, J. Zhang, A. Manthiram, Y. S. Meng & W. Xu, "A review on the stability and surface modification of layered transition-metal oxide cathodes", **Materials Today**, 2021, 46, 155-182
31. E. A. Wu, S. Banerjee, H. Tang, P. M. Richardson, J. Doux, J. Qi, Z. Zhu, A. Grenier, Y. Li, E. Zhao, G. Deyscher, E. Sebt, H. Nguyen, R. Stephens, G. Verbist, K. W. Chapman, R. J. Clément, A. Banerjee, Y. S. Meng* & S. P. Ong*, "A stable cathode-solid electrolyte composite for high-voltage, long-cycle-life solid-state sodium-ion batteries", **Nature Comm.** 2021, 12,1256
32. K. Leung, N. B. Schorr, M. Mayer, T. N. Lambert, Y. S. Meng and K. L. Harrison, "Edge-Propagation Discharge Mechanism in CF_x Batteries – A First-Principles and Experimental Study", **Chemistry of Materials**, 2021, 33, 1760–1770
33. M. J. Zuba, A. Grenier, Z. Lebens-Higgins, G. J. P. Fajardo, Y. Li, Y. Ha, H. Zhou, M. S. Whittingham, W. Yang, Y. S. Meng, K. W. Chapman, and L. F. J. Piper, "Whither Mn Oxidation in Mn-Rich Alkali-Excess Cathodes?", **ACS Energy Letters**, 2021, 6, 3, 1055–1064
34. 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
35. 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
36. 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
37. 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, 12, 49, 54473–5448
38. 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
39. 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, 35, 99-107
40. 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, 4, 1, 164-181
41. 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

42. 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
43. 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
44. 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
45. 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
46. 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
47. 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
48. 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
49. 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
50. Y. S. Meng, "Introduction: Beyond Li-Ion Battery Chemistry", **Chem. Rev.** 2020, 120, 6327–6327
51. 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
52. 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
53. 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
54. S. Wang, A. Cabrerros, 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
55. 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
56. 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
57. 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
58. 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
59. 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
60. 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
61. 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
62. 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
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65. 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
66. 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.
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69. 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 Li₆PS₅Cl Solid Electrolyte”, **ACS Energy Lett.**, 4, 2418–2427, 2019.
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 258. Y.S. Meng, G. Ceder, C.P. Grey, W.-S. Yoon, and Y. Shao-Horn, "Understanding the crystal structure of layered $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ by electron diffraction and powder diffraction simulation", **Electrochemical and Solid-State Letters** 7(6) A155-A158, 2004.
 259. Y.S. Meng, Y.W. Wu, B.J. Hwang, Y. Li and G. Ceder, "Combining ab-initio computation with experiments for designing new electrode materials for advanced lithium batteries: $\text{LiNi}_{1/3}\text{Fe}_{1/6}\text{Co}_{1/6}\text{Mn}_{1/3}\text{O}_2$ ", **Journal of the Electrochemical Society**, 151(8) A1134-A1140, 2004.
- e. Patents and Book Chapters**
1. Y. S. Meng, F. So, J. Xue, J. Reynolds, K. R. Zawoy, "Integrated PV/Battery/OLED Lighting Module (SoLiOled)," US/183359, 2012.
 2. Y. S. Meng, "High Energy Density Cathode Materials for Lithium Ion Batteries," US 12/143606, 2012.
 3. Y.S. Meng and H. Liu, "Lithium and Sodium Contacting Layered Oxide Material, Cathodes and Sodium Ion Electrochemical Cells", US/14/917, 340, 2016
 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
 5. Y.S. Meng, M. Zhang, H. Liu, D. Qian and C. Fang, "Lithium-Excess Cathode Material and Co-precipitation Formation Method", US/15/774,876
 6. C. Rustomji, Y.S. Meng and Y. Yang, "Electrochemical Energy Storage Device", PCT/US29821, 2017
 7. Z. Zhu, L.H. Chu, S.P. Ong, E. Wu, H. Nguyen and Y.S. Meng, "Lithium and Sodium Superionic Conductors", US/059340, 2017

8. D. Steingart, B. Hertzberg, M. Chamoun, G. Davies and Y.S. Meng, "Alkaline Electrolyte Useful for a Rechargeable Alkaline Electrochemical Cell", PCT/US/25989, 2018
9. D. Tan, A. Banerjee, "Electrolyte composite for batteries", US Patent App. 16/409,275, 2019
10. "Chemical formulations for electrochemical device" International App. PCT/US19/32414 (2019-023+§) May 2019
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. Keynote Address, XRD Workshop Hosted by Benha University, Egypt, Virtual Conference, August 23rd, 2021
2. Invited Talk, Suds & Science, Fleet Science Center, August 9th, 2021
3. Electrochemical Society Chapter Talk, July 7th, 2021
4. Faraday Institute, Degradation Project Talk, University of Cambridge, Virtual, June 24th, 2021
5. Roundtable Presentation, U.S. Department of Energy: A National Lithium Battery Blue Print, Federal Consortium, Virtual, June 14th, 2021
6. Seminar Talk E-MRS Spring Symposium, ALTECH, Virtual, May 31st, 2021
7. Panel Talk, Materials for Humanity (MH21), by MRS-S, Virtual, July 6th, 2021
8. Electrochemical Society Chapter Talk, July 7th, 2021
9. Invited Talk, Suds & Science, Ruben H Fleet Science Center, August 9th, 2021
10. Keynote Address, XRD Workshop Hosted by Benha University, Virtual Conference, August 23rd, 2021
11. Plenary Talk, Indonesia National Battery Research Institute, ICB-REV 2021
12. Seminar Talk, The Electrochemical Society (ECS) Student Chapter, University of Notre Dame, Virtual, March 10th, 2021
13. Seminar Talk, Georgia Institute of Technology, Virtual, March 9th, 2021
14. Materials Science & Engineering Department Colloquium, Northwestern University, Virtual, January 26th, 2021
15. Seminar Talk, The Mexican Energy Storage Network, Virtual, January 22nd, 2021
16. Seminar Talk, Chemours, Virtual, January 8th, 2021
17. Invited Talk, Symposium F.EN07.01, Materials Research Society (MRS), Fall Meeting, Virtual, December 2nd, 2020
18. Invited Talk, 8th International Renewable Sustainable Energy (IRSEC) Conference, Virtual, November 25th-28th, 2020
19. Seminar Talk, Lawrence Livermore National Lab, Virtual Seminar, November 20th, 2020
20. Seminar Talk, The Qualcomm Institute, Virtual, November 6th, 2020
21. Seminar Talk, Materials Science and Engineering, University of Pennsylvania, Virtual, November 5th, 2020
22. Seminar Talk, Columbia University, Electrochemical Energy Center, Virtual Seminar, October 30th, 2020
23. Quantum Materials/Computing Round Table, Virtual, October 30th, 2020
24. Invited Talk, Underwriters Laboratories (UL) Battery Safety Webinar, Virtual, October 28th, 2020
25. Invited Talk, Career Development and Gender Equality Webinar hosted by Cell Press and Joule, Virtual, October 28th, 2020

26. Invited Talk, Materials Research Society (MRS) & Thermo Fisher Scientific (TFS), October 27th, 2020
27. Symposium Talks, PRiME 2020, The Electrochemical Society (ECS), Virtual, October 5th-8th, 2020
28. Invited Talk, Israel National Research Center for Electrochemical Propulsion (INREP) 2020 Annual Conference, Virtual, September 15th, 2020
29. Invited Talk, Symposium P03.2, Microscopy & Microanalysis (MM) Meeting, August 6th, 2020
30. Invited Talk, Battery Seminar, Royal Society of Chemistry (RSC), Virtual, July 21st, 2020
31. Seminar Talk, The Electrochemical Society (ECS) San Francisco Section, Virtual, May 18th, 2020
32. Seminar talk, Thermo Fisher Scientific, Virtual, April 29th, 2020
33. Invited Talk, Royal Society of Chemistry (RSC), Virtual, March 27th, 2020
34. Invited Talk, "The Future of Energy Storage," Frontiers of Science Webinar Series, The New York Academy of Sciences (NYAS), Virtual, March 23rd, 2020
35. Invited Talk, Gordon Research Conference (GRC), Ventura, CA, February 16th-21st, 2020
36. Seminar Talk, University of California Los Angeles, February 7th, 2020
37. Invited Talk, Gordon Research Conference on Electrochemistry, Ventura, CA, January 7th, 2020
38. Colloquium Talk, Pritzker School of Molecular Engineering, University of Chicago, January 14th, 2020
39. Keynote Talk, Materials Research Meeting (MRM), Yokohama, Japan, December 11th, 2019
40. Invited Talk, Symposium EN02, MRS Fall, Boston, MA, December 2nd, 2019.
41. Seminar Talk, College de France, Paris, France, October 18th, 2019
42. Plenary Talk, Li Battery Discussions (LiBD), Bordeaux, France, September 16th, 2019.
43. Invited Talk, Symposium ENFL, ACS Annual Meeting, Sand Diego, August 26th, 2019.
44. Invited Talk, Symposium N, 10th International Conference on. Materials for Advanced Technologies, ICMAT, Singapore, June 26th, 2019
45. Keynote talk, LG Chem Open Innovation Forum 2019, Seoul, South Korea May 9th, 2019
46. Invited talk, Lithium Battery International Summit (LIBS), 2019, Shenzhen, China, May 7th, 2019
47. Seminar Talk, ETH, Zurich, Switzerland, Feb. 19th, 2019.
48. Keynote talk, Center for ElectroChemistry (CEC) 2019 Annual Workshop, Austin, Texas, USA, Feb10th, 2019.
49. Keynote talk, International Coalition for Energy Storage and Innovation (ICESI) and Pacific Power Source Symposium Joint Meeting, Kona Hawaii, USA, January 8th, 2019
50. Invited talk, Materials Research Society MRS Fall 2018, Boston, MA, USA, Nov. 28th, 2018
51. Invited talk, 11th International Conference on Advanced Lithium Batteries for Automobile Applications (ABAA), Huzhou, China, October 13th, 2018
52. Award Talk, ACS, Boston, August 21st, 2018
53. Invited talk, Symposium on Advanced Batteries and Supercapacitors for Energy Storage, 12th International Conference on Ceramic Materials, Singapore, July 25th, 2018
54. Keynote talk, International Meeting on Lithium Batteries (IMLB) 2018, Kyoto, Japan, June 18th, 2018
55. Invited talk, Advanced Automotive Battery Conference, San Diego, CA, USA, June 5th, 2018
56. Department Colloquium, Nuclear Engineering and Materials Science and Engineering, MIT, April 27th, 2018.
57. Seminar, School of Engineering and Applied Sciences, Harvard University, April 25th, 2018
58. Invited talk, Symposium on Safe and High Energy Batteries, Materials Research Society MRS, Phoenix, AZ, April 4th, 2018
59. Discussion Leader, Gordon Research Conference (GRC) on Batteries, Ventura, CA, USA, Feb. 27th – March 1st, 2018

60. Keynote talk, International Battery Association (IBA) Meeting, Jeju, South Korea, March 12-15th, 2018.
61. Invited talk, Munich Battery Discussion Meeting, Munich, Germany, February 19-20th, 2018
62. Keynote talk, Nature Conference on Electrochemical Energy Systems, Shenzhen, China, January 13-15th, 2018.
63. Department of Chemical & Biological Engineering Colloquium, Princeton University, November 29, 2017.
64. Invited talk, 10th International Conference on Advanced Lithium Batteries for Automobile Applications (ABAA), Chicago, USA, October 23rd, 2017.
65. Invited talk, Symposium on advanced characterization in honor of Dr. Frank McLarnon, Electrochemical Society Meeting, National Harbor, October 3rd, 2017.
66. Department of Energy & Environmental Materials, School of Materials Science and Engineering, Beijing Institute of Technology, China, September 2nd, 2017.
67. Keynote talk, International Union of Materials Research Society – The 15th International Conference on Advanced Materials (IUMRS-ICAM), Kyoto, Japan, August 31st, 2017
68. Department of Chemistry, Dalhousie University, Halifax, Canada, August 22nd, 2017
69. Materials Science & Engineering Department Seminar, Stanford University, May 5th, 2017
70. US China Electric Vehicle Battery Technology (EVBT), Zhuhai, China, April 17th, 2017
71. 3rd International Forum on Cathode and Anode Materials for Advanced Batteries, Ningbo, China, April 14th, 2017
72. Keynote talk, International Battery Association (IBA), Nara, Japan, March 6th, 2017
73. Chinese University of Hong Kong, Physics Department Colloquium, March 2nd, 2017
74. Hong Kong Polytechnic University Colloquium, February 28th, 2017
75. 9th ABAA International Conference on Advanced Lithium Batteries for Automotive Applications, Huzhou, China, October 18th, 2016.
76. 18th International Meeting of Lithium Batteries, Chicago, IL, June 20th, 2016
77. Department of Materials Science & Engineering seminar, University of California Santa Barbara, May 27th, 2016
78. Sino-American Technology & Engineering Conference, Wuhu, China, May 16th, 2016
79. Department of Physics seminar, University of Houston, Houston, TX, April 25th, 2016
80. Department of Physics and Applied Physics seminar, Nanyang Technological University, Singapore, March 25th, 2016
81. Symposium EE7, Materials Research Society (MRS), Spring Meeting, Phoenix, AZ, March 31st, 2016
82. Munich Battery Discussion Meeting by BMW, Munich, Germany, March 14th, 2016
83. 2016 Gordon Research Conference (GRC) on Batteries, Ventura California, February 22nd, 2016
84. 3rd Euro-Mediterranean Conference on Materials and Renewable Energies (EMCMRE-3), Marrakech, Morocco, November 2-6th, 2015
85. International Society of Electrochemistry (ISE), Hong Kong Satellite Meeting and Taipei Annual Meeting, Oct 3-6, 2015.
86. 2nd International Forum on Anode & Cathode Materials for Advanced Batteries, Hangzhou, China, April 22nd, 2015.
87. 10th China-US Battery Workshop, Beijing, China Mar 30th, 2015.
88. Mechanical Engineering Seminar, Princeton University, Dec 5th, 2014
89. Symposium Z, Materials Research Society MRS Fall Meeting, Boston, Dec 3rd, 2014
90. 55th Japan Battery Symposium, Kyoto, Japan, Nov 20th, 2014.
91. 226th Electrochemical Society Meeting (ECS), Cancun, Mexico, Oct 7th, 2014.

92. Frontier of Engineering, National Academia of Engineering, Irvine, CA, Sep. 12th, 2014.
93. XXIII International Materials Research Congress, Cancun, Mexico, August 17th, 2014.
94. Gordon Research Conference on Electrodeposition, New Hampshire, ME, July 30th, 2014.
95. Argonne National Lab Chemical Engineering Division Colloquium Talk, May 6th, 2014.
96. International Battery Association (IBA) Meeting, Melbourne, Australia, March 4th- 7th, 2014.
97. Department of Physics and Atmospheric Science, Dalhousie University, December 9th, 2013.
98. Materials Research Society Meeting, Symposium CC, Boston, December 4th, 2013.
99. Institute for Pure and Applied Mathematics, Materials for a Sustainable Energy Future Program, Los Angeles, September 9th, 2013.
100. 7th International Conference on Materials for Advanced Technologies (ICMAT), July 4th, Singapore 2013.
101. Massive Energy Storage, Engineering Conferences International, Newport Beach, CA, June 24th, 2013.
102. PacRim American Ceramics Society Meeting, Coronado Island, CA, June 5th, 2013.
103. Department of Materials Science and Engineering, UC Riverside, CA, May 29th, 2013.
104. International Battery Association (IBA) meeting, Barcelona, Spain, March 11th, 2013.
105. 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 17th, 2013.
106. "Big Energy Seminar Series", University of Colorado Boulder, November 8th, 2012.
107. European Microscopy Congress, Manchester, UK, September 19th, 2012.
108. International Conference of Young Researchers on Advanced Materials, ICYRAM, Electrochemical Energy Session, Singapore, July 2nd, 2012.
109. HRL Laboratories Colloquium, Malibu CA, June 21st, 2012.
110. Materials Research Society, Symposium O Invited talk, San Francisco, CA, April 12th 2012.
111. Center for Computational Sciences, University of Kentucky, March 21st, 2012.
112. Taipei Forum on Large-Format Power Lithium Batteries, Taipei, February 15th, 2012.
113. International Battery Association (IBA) meeting, Kona, Hawaii, January 12th, 2012.
114. Gordon Research Conference (GRC) on Electrochemistry, Ventura, CA, January 11th, 2012.
115. Ningbo-2011 International Symposium on Development and Commercialization of Power Lithium-ion Batteries, China, November 10th, 2011.
116. Department of Materials Science and Engineering, Seoul National University, Korea, August 12th, 2011.
117. Department of Materials Science and Engineering, Northwestern University, May 23rd, 2011.
118. Department of Chemical Engineering and Materials Science, UC Irvine, April 1st, 2011.
119. Department of Materials Science and Engineering, UCLA, October 29th, 2010.
120. Symposium B4 Electrode-Electrolyte Interfaces in Li-ion Batteries, Electrochemical Society Meeting Fall 2010, Las Vegas, October 11-14th, 2010.
121. Gordon Research Conference, Solid State Studies in Ceramics, New Hampshire, August 15-17th, 2010.
122. UCSD Research Expo, April 15, 2010.
123. Materials Science & Technology 2009 Conference, Pittsburgh, Oct. 27, 2009.
124. State Key Lab for Physical Chemistry of Solid Surfaces, Xiamen University, China, June 25, 2009.
125. Department of Physics, Chinese University of Hong Kong, June 22, 2009.
126. Oak Ridge National Laboratory, USA, May 28, 2009.
127. CERMACS Annual Meeting, American Chemical Society, Cleveland, Ohio, May 22, 2009.

128. Florida Institute of Sustainable Energy (FISE) Seminar, March 16, 2009.
129. Department of NanoEngineering, University of California San Diego, December 8, 2008.
130. Materials Science and Technology 2008 Conference, Pittsburg, Pennsylvania, October 6, 2008.
131. Department of Materials Science and Engineering, University of Michigan, September 26, 2008.
132. International Materials Research Congress (IMRC), Annual Conference, Cancun, Mexico, August 18-21, 2008.
133. Korea Electrotechnology Research Institute (KERI), Pusang, Korea, July 7, 2008.
134. National Taiwan University of Science and Technology, Taipei, Taiwan, June 20, 2008.
135. International Meeting for Lithium Batteries (IMLB) 2008, Tianjin, China, June 22-27, 2008.
136. International Materials Research Congress (IMRC), Annual Conference, Cancun, Mexico, October 28-30, 2007.
137. University of Bordeaux, ICMCB, France, September 27, 2007.
138. CSIRO Energy Technology, Commonwealth Scientific and Industrial Research Organization (CSIRO), Melbourne, Australia, July 24-25, 2007.
139. Department of Physics, University of California Davis, April 9 – 10, 2007.
140. Nanoscience and Nanoengineering Institute and Department of Materials Science and Engineering, University of California Berkeley, January 25, 2007.
141. Department of Materials Science and Engineering, University of Florida, January 18, 2007.
142. Department of Physics, Chinese University of Hong Kong, September 1, 2006.
143. State Key Lab for Physical Chemistry of Solid Surfaces, Xiamen University, China, Aug 31, 2006.
144. The 7th China International Battery Fair, Beijing, China June 28-30, 2006.
145. Lawrence Livermore National Laboratory, USA, June 9, 2006.
146. Department of Materials Science and Engineering, Stanford University, Palo Alto, June 5, 2006.
147. Industrial Technology Research Institute ITRI, Taiwan, May 19, 2006.
148. International Battery Association – Hawaii Battery Conference (IBA-HBC), Hawaii, USA, Jan 9-13, 2006.
149. 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 3-8th, 2019.
- Symposium “Lithium Ion Batteries”, Electrochemical Society (ECS) 234th Meeting, Cancun Mexico, October 1-5th, 2018.
- US China Electric Vehicle Battery Technology Workshop, La Jolla, CA, April 8-10th, 2018, 2018.
- Symposium “Lithium Ion Batteries”, Electrochemical Society (ECS) 232nd Meeting, National Harbor MD, October 1-5th, 2017.
- Ceramics for Energy Workshop, Sponsored by National Science Foundation, San Diego, June 3-4th, 2016.
- Symposium “High-Energy Li-Ion Intercalation Materials”, Electrochemical Society (ECS) 228th Meeting, Phoenix AZ, Oct 11-15, 2015.
- Symposium “Lithium Ion Batteries”, Electrochemical Society (ECS) Fall 226th Meeting, Cancun, Mexico, October 6-10th, 2014.
- Symposium “Batteries and Fuel Cell Technologies: Challenges and Solutions Towards Global Stewardships” 248th American Chemical Society ACS National Meeting and Exhibition, San Francisco, USA, August 10-14th, 2014.
- Symposium N “Frontier in Energy Storage”, Materials Research Society (MRS), San Francisco, USA, April 20-25th, 2014.
- Symposium on “Computation Science on Battery Materials”, Electrochemical Society (ECS) Fall 224th meeting, San Francisco, USA, October 27-November 1, 2013.
- Symposium on “Design and Modeling of Battery Materials”, Electrochemical Society (ECS) Spring 223rd meeting, Toronto, Canada, May 12-14, 2013.
- Advances in Batteries, American Chemical Society (ACS) Fall Meeting, Philadelphia, August 23-24th, 2012.

- Intercalation Compounds Symposium B4, **Electrochemical Society (ECS)** Fall 222nd 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, 233rd Electrochemical Society Meeting (ECS) Seattle, May 2018. Symposium S6 for 37th 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 9-14th, 2011. Symposium L for Materials Research Society Meeting (MRS), April 25-29th, 2011. Symposium B8 for Electrochemical Society Meeting (ECS), Las Vegas, October 11-14th, 2010. Functional Ceramics for Energy Storage & Conversion (Symposium 5) for the Electronic Materials and Applications (EMA) Conference, Orlando January 20-22nd, 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 Vilet 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 Berkley 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 15th, 2021

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

UCSD News (NASA Grant) – February 12th, 2021

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

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

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

Reuters (Commentary on Tesla) – September 23rd, 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 8th, 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 3rd, 2020

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

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

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

MRS Energy & Sustainability – December 5th, 2019

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

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

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

Green Connections Radio (Eco-Battery Technologies) – October 14th, 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 2nd, 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

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

[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://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-e](http://ucsdnews.ucsd.edu/pressrelease/uc-san-diego-part-of-new-doe-consortium-to-revolutionize-electric-car-batte)
[lectric-car-batte](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>