

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

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**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, USA	Postdoc	2005 – 2007

**a. Positions Held and Key Achievements****2022 - Now Chief Scientist, Argonne Collaborative Center for Energy Storage Science (ACCESS)**

*Scope of Responsibility: Strategic planning of the energy storage research priority directions, bringing funding for the national laboratory in collaborations with top research university throughout the USA*

*Key Achievements: Leading one of the largest energy innovation hubs in the USA focusing on next generation batteries and materials for energy storage. Energy Storage Research Alliance (ESRA) is an Energy Innovation Hub funded by Department of Energy, Office of Science.*

**2022 - Now Professor, Pritzker School of Molecular Engineering (PME), University of Chicago**

*Scope of Responsibility: Leading the energy and sustainability effort and technology development for the Climate and Energy Initiative*

*Key Achievements: Launching the first industry centric consortium for University of Chicago, Energy Transition Network. Established the Chicago based Laboratory of Energy Storage and Conversion (LESC).*

2021 - Now Adjunct professor, NanoEngineering, University of California, San Diego

**2009 – 2021 Faculty (Assistant to Full Ranked), NanoEngineering, UC, San Diego**

*Scope of Responsibility: Leading the energy and sustainability effort and technology development for the UCSD Energy Initiative*

*Key Achievements: Established the Laboratory of Energy Storage and Conversion (LESC) in 2009. Founded the Sustainable Power and Energy Center (SPEC) in 2016, now with more than ten corporate members and have received over 5M\$ philanthropic funding and 60M\$ federal and private research funding.*

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

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

**c. Awards and Honors**

2024, Dresselhaus Memorial Lecture Award, International Workshop on Advanced Materials

2023, Battery Division Research Award, Electrochemical Society (ECS)

2023, Research Excellence in Electrochemistry, ENFL, American Chemical Society (ACS)

2023, Alexander M. Cruickshank (AMC) Lectureship at the Gordon Research Conference on Nanomaterials for Applications in Energy Technology

2022, Clean Energy Education and Empowerment C3E Award in Technology and Innovation

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. Total 320 peer reviewed journal articles with H-index 115 and 12 Issued and pending patents**

Selected publications:

1. G. Deysher, J.A.S. Oh, Y. Chen, B. Sayahpour, S. Ham, D. Cheng, P. Ridley, A. Cronk, S.W. Lin, K. Qian, L.H.B. Nguyen, J. Jang, Y.S. Meng\*, "Design principles for enabling an anode-free sodium all-solid-state battery", **Nat. Energy** 2024. ASAP
2. 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, J. B. Lee, Z. Chen and Y. S. Meng\*, "Carbon Free High Loading Silicon Anodes Enabled by Sulfide Solid Electrolytes", **Science**, 373, 1494–1499, 2021.
3. 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", **Nat. Mater.**, 19, 1339–1345, 2020
4. C. Fang, J. Li, M. Zhang, Y. Zhang, F. Yang, J. Z. Lee, M-H Lee, J. Alvarado, M.I A. Schroeder, Y. Yang, B. Lu, N. Williams, M. Ceja, L. Yang, M. Cai, J. Gu, K. Xu, X. Wang and Y. S. Meng\*, "Quantifying Inactive Lithium in Lithium Metal Batteries", **Nature**, 572, 511-515, 2019.
5. C. S. Rustomji, Y. Yang, T. K. Kim, J. Mac, Y. J. Kim, E. Caldwell, H. Chung, Y. S. Meng\*, "Liquefied Gas Electrolytes for Electrochemical Energy Storage Devices", **Science**, 356, 1351, 2017

**e. Synergistic Activities**

**President** of International Battery Association (IBA), 2024 – now

**Vice President, Executive Board Member and Treasurer** of International Battery Association (IBA), 2017 – now

**Upstate New York Energy Storage Engine , Advisory Board**, 2024 – now

**National Materials and Manufacturing Board, National Academy of Science, Engineering and Medicine**, Member, 2022- now

**BESSY III upgrade technical advisory board**, Member, 2022-now

**Basic Energy Science Advisory Board (BESAC)** for Department of Energy, 2020 – 2024

**Presidential Advisory Board for Kavli Foundation**, Member, 2022 – now

**Shell Science Council**, Member, 2019 – now

**Founding Director of Sustainable Power and Energy Center** (<http://spec.ucsd.edu>) The SPEC consists of 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**, Energy journal of MRS 2019 – 2024

**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)

**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.

Successfully established NeWare Young Investigator Awards.

**Chair** for Battery Division of the Electrochemical Society, USA, 2020 - 2022