

## André D. Taylor, Ph.D.

Dept. of Chemical and Biomolecular Engineering, New York University, Tandon School of Engineering, 6 MetroTech Center, Brooklyn, NY 11201; Phone: (646) 997-3545, Fax: (646) 997-3136; Email: [Andre.Taylor@nyu.edu](mailto:Andre.Taylor@nyu.edu), U.S. Citizen

### Professional Preparation

- B.S. Chemical Engineering, High Honors, University of Missouri – Rolla, December 1995
- M.S. Chemical Engineering, Georgia Institute of Technology, May 2000
- Ph.D. Chemical Engineering, University of Michigan, May 2005

### Employment

2018-present	Associate Professor of Chemical and Biomolecular Engineering, New York University
2014-2015	Martin Luther King Jr., Visiting Associate Professor, Massachusetts Institute of Technology
2013-2017	Associate Professor of Chemical and Environmental Engineering, Yale University
2008- 2013	Assistant Professor of Chemical Engineering, Yale University
2007-2008	Research Scientist, Department of Electrical Engineering, University of Michigan
2005-2007	Research Investigator, Department of Chemical Engineering, University of Michigan

### Selected Academic and Professional Honors

Smith-Cotton High School Academic Hall of Fame (1 of 3 first inaugural inductees) 2013  
Yale Junior Faculty Fellowship 2011-2012  
**PECASE - Presidential Early Career Award for Scientists and Engineers (2011)**  
Yale Arthur Greer Memorial Prize for Outstanding Scholarly Publication or Research 2011  
**NSF CAREER Award (2010) One of < 5% of recipients in their first year of eligibility**  
Dr. Theophilus Sorrell Fellow (National Organization of Black Chemists and Chemical Engineers) 2003

### Professional and Academic Memberships

Electrochemical Society (ECS)	American Institute of Chemical Engineers (AIChE)
American Chemical Society (ACS)	(Secretary/Treasurer CRE Division)
Material Research Society (MRS)	Tau Beta Pi (Engineering Honor Society)
National Soc. of Black Engineers ( <b>Yale Dean</b> )	Yale Black Graduate Network ( <b>Faculty Advisor</b> )
Resident Fellow Yale Trumbull College	<b>Eagle Scout</b> (National Eagle Scout Association)

### Teaching Experience

CENG/ENAS 430, Renewable Energy Technologies for Developing Countries, Spring 2017  
CENG/ENVE 230, Materials and Energy Balances, Fall 2008, Fall 2009, Fall 2010, Fall 2015, Fall 2016  
ENAS 609, Nanotechnology for Energy: Materials, Devices, and Theory, Fall 2012, Fall 2013  
CENG/ENVE 315, Transport Phenomena (Heat and Mass Transfer), Spring 2013, Spring 2014

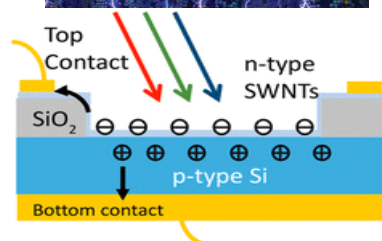
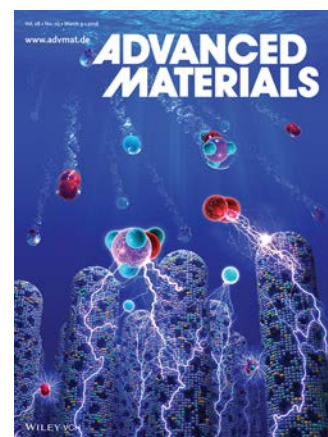
### Selected Publications (from 74) All as Independent Investigator and Sole Corresponding Author:

20. D. Huang, T. Goh, J. Kong, Y. Zheng, S. Zhao, Z. Xu, and A.D. Taylor (2017), Perovskite Solar Cells with DMSO-treated PEDOT:PSS Hole Transport Layer Exhibit Higher Photovoltaic Performance and Enhanced Durability, *Nanoscale*, 9, 4236-4243.

19. G. Doubek, R.C. Sekol, J. Li, ..., and **A.D. Taylor (2016)**, Guided Evolution of Bulk Metallic Glass Nanostructures: A Platform for Designing Three-Dimensional Bicontinuous Electrocatalytic Surfaces, *Advanced Materials*, 28 (10), 1940-1949. DOI: 10.1002/adma.201670064. [Featured on the Journal Cover.](#)

18. W.H. Ryu, F.S. Gittleson, M. Schwab, T. Goh, A.D. Taylor (2015), A Mesoporous Catalytic Membrane Architecture for Lithium-Oxygen Battery Systems, *Nano Letters*, 15, 434-441. DOI: 10.1021/nl503760n

17. T. Goh, J-S. Huang, E. Bielinski, B. Thompson, S. Tomasulo, M. Lee, M. Sfeir, N. Hazari, and A.D. Taylor (2015), Co-evaporated Bi-squaraine Inverted Solar Cells: Enhancement Due to Energy Transfer and Open Circuit Voltage Control, *ACS Photonics*, 2 (1), 86-95. DOI: 10.1021/ph500282z



16. F.S. Gittleson, W-H. Ryu, and A.D. Taylor (2014), Operando Observation of the Gold Electrolyte Interface in Li-O<sub>2</sub> Batteries, *ACS Applied Materials & Interfaces*, 6 (21) pp. 19017 – 19025.

15. X. Li, J-S. Huang, S. Nejeti, L. McMillon, S. Huang, C.O. Osuji, N. Hazari, and A.D. Taylor (2014), The Role of HF in Oxygen Removal from Carbon Nanotubes: Implications for High Performance Carbon Electronics, *Nano Letters*, 14 (11), 6179-6184.

14. X. Li, L.M. Guard, J. Jiang, K. Sakimoto, J.-S. Huang, J. Wu, J. Li, L. Yu, R. Pokhrel, G.W. Brudvig, S. Ismail-Beigi, N. Hazari and A.D. Taylor (2014) Controlled doping of carbon nanotubes with metallocenes for application in hybrid carbon nanotube/Si solar cells, *Nano Letters*, 14 (6), 3388–3394. DOI: 10.1021/nl500894h

13. X. Li, Y. Jung, J-S. Huang, T. Goh, and A.D. Taylor (2014), Device Area Scale-Up and Improvement of SWNT/Si Solar Cells Using Silver Nanowires, *Advanced Energy Materials*, 4 (12), 1400186. DOI: 10.1002/aenm.201400186

12. F. Gittleson, R.C. Sekol, G. Doubek, M. Linardi, and A.D. Taylor (2014), Catalyst and Electrolyte Synergy in Li-O<sub>2</sub> Batteries, *Physical Chemistry Chemical Physics*, 16 (7), 3230 - 3237. DOI: 10.1039/C3CP54555E

11. J-S. Huang, T. Goh, X. Li, M. Sfeir, E. Bielinski, S. Tomasulo, M. Lee, N. Hazari, and A.D. Taylor (2013), Polymer bulk heterojunction solar cells employing Förster resonance energy transfer, *Nature Photonics*, 7, 479–485. doi:10.1038/nphoton.2013.82. [Featured Table of Contents Image.](#)

10. R.C. Sekol, X. Li, P. Cohen, G. Doubek, M. Carmo, and A.D. Taylor (2013), Silver Palladium Core-Shell Electrocatalyst Supported on MWNTs for ORR in Alkaline Media, *Applied Catalysis B-Environmental*, 138–139, 285–293. <http://dx.doi.org/10.1016/j.apcatb.2013.02.054>

9. X. Li, Y. Jung, K. Sakimoto, T. Goh, M.A. Reed, and A.D. Taylor (2013), A Systematic Study for High Efficiency Single Walled Carbon Nanotube/Silicon Hybrid Solar Cells, *Energy and Environmental Science*, 6, 879-887. DOI: 10.1039/C2EE23716D

8. M. Carmo, G. Doubek, R.C. Sekol, M. Linardi, and A.D. Taylor (2013), Development and electrochemical studies of membrane electrode assemblies for polymer electrolyte alkaline fuel cells using FAA-3 membrane and ionomer, *Journal of Power Sources*, 230, 169–175. <http://dx.doi.org/10.1016/j.jpowsour.2012.12.015>

7. Y. Jung, X. Li, N.K. Rajan, A.D. Taylor, and M.A. Reed (2013), Record High Efficiency Single-Walled Carbon Nanotube/Silicon p–n Junction Solar Cells, *Nanoletters*, 13 (1), 95–99. DOI: 10.1021/nl3035652

6. R.C. Sekol, G. Kumar, M. Carmo, F.S. Gittleson, N. Hardesty-Dyck, S. Mukherjee, J. Schroers, and A.D. Taylor (2013), Bulk Metallic Glass Micro Fuel Cell, *SMALL*, 9 (12), 2081-2085. DOI: 10.1002/smll.201201647 \* [Featured on the Journal Cover.](#)

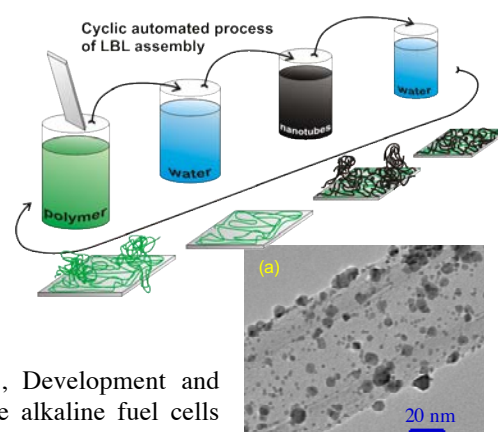
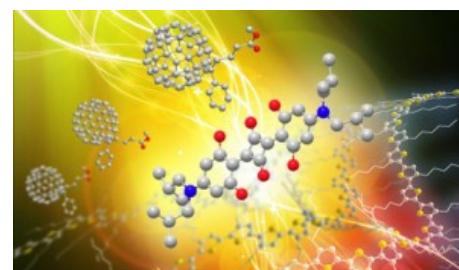
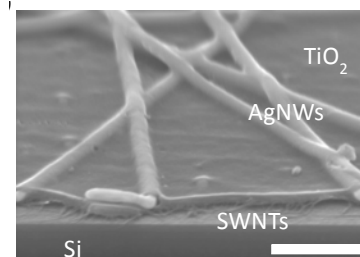
5. F.S. Gittleson, D.A. Kohn, X. Li, and A.D. Taylor (2012), Improving the assembly speed, quality, and tunability of thin conductive multilayers. *ACS Nano*, 6(5), 3703-3711. DOI: 10.1021/nn204384f

4. X. Li, F.S. Gittleson, M. Carmo, R.C. Sekol, and A.D. Taylor (2012), Scalable fabrication of multifunctional freestanding carbon nanotube/polymer composite thin films for energy conversion, *ACS Nano*, 6(2), 1347-1356. DOI: 10.1021/nn2041544

3. M. Carmo, R.C. Sekol, S. Ding, G. Kumar, J. Schroers, and A.D. Taylor (2011), Bulk Metallic Glass Nanowires Architecture for Electrochemical Applications. *ACS Nano*, Vol. 5, No. 4, 2979-2983. DOI: 10.1021/nn200033c. [Featured on the Journal Cover.](#)

2. A.D. Taylor, G. Dileo, and K.D. Sun (2009), H<sub>2</sub> Production and Performance of Nickel Based Catalysts Synthesized using Supercritical Fluids for the Gasification of Biomass. *Applied Catalysis B-Environmental*. 93, 126-133.

1. A.D. Taylor, R. Sekol, J. Kizuka, and C. Comisar (2008), Fuel Cell Performance and Characterization of 1-D Carbon Supported Pt Nanocomposites Synthesized in Supercritical Fluids, *Journal of Catalysis*, 259, 5-16.



Article describes how Bulk Metallic Glass alloys can be designed for unique topography and surface chemistry.

