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• Education and Training

1981	Massachusetts Institute of Technology, Ph. D. in Inorganic Chemistry
1977	California Institute of Technology, M. S. in Chemistry
1977	California Institute of Technology B. S. in Chemistry with Highest Honors, 1977 GPA 4.0/4.0

• Research and Professional Experience

2002-present	George L. Argyros Professor of Chemistry, California Institute of Technology
1992-present	Principal Investigator, Caltech, Beckman Institute MMRC
1991-present	Professor of Chemistry, California Institute of Technology
2013-2014	Scientific Director, Joint Center for Artificial Photosynthesis
2010-2013	Director, Joint Center for Artificial Photosynthesis
1988-1990	Associate Professor, California Institute of Technology
1986-1988	Associate Professor, Stanford University
1981-1986	Assistant Professor, Stanford University
1977-1981	Research Assistant, Massachusetts Institute of Technology
1974-1977	Research Assistant, California Institute of Technology

Technical Consulting Appointments

2013-Present	Advisory Board of Materials Horizons
2009-Present	Editor-in-Chief, Energy & Environmental Science
2007-Present	Scientific Consultant, Next Dimension Technologies
1992-Present	Consultant to the Government, MITRE Corporation
2007-2013	Chairman, Scientific Advisory Board, Stion Solar
2002-2008	Scientific Advisory Board, Protein Discovery
2001-2007	Technology Advisory Council, BP
2000-2005	Scientific Advisory Board, Orchid Biosciences

• Publications

1. Torelli, D. A., Francis, S. A., Crompton, J. C., Javier, A., Thompson, J. R., Brunschwig, B. S., Soriaga, M. P., **Lewis, N. S.** "Nickel-Gallium-Catalyzed Electrochemical Reduction of CO2 to Highly Reduced Products at Low Overpotentials", *ACS Catal.*, **2016**, 6, 2100-2104.
2. Shaner, M. R.; Hu, S.; Sun, K.; **Lewis, N. S.** "Stabilization of Si microwire arrays for solar-driven H_2O oxidation to $O_2(g)$ in 1.0 M KOH(aq) using conformal coatings of amorphous TiO_2" *Energy & Environmental Science* **2015**, *8* (1), 203-207.
3. Warren, E. L., Atwater, H. A., **Lewis, N. S.** "Silicon microwire arrays for solar energy-conversion applications" *J. Phys. Chem. C,* **2014**, *118*, 747–759.
4. Lichterman, M. F.; Carim, A. I.; McDowell, M. T.; Hu, S.; Gray, H. B.; Brunschwig, B. S.; **Lewis, N. S.** "Stabilization of n-cadmium telluride photoanodes for water oxidation to $O_2(g)$ in aqueous alkaline electrolytes using amorphous TiO_2 films formed by atomic-layer deposition" *Energy & Environmental Science* **2014,** *7*, 3334-3337.
5. Huang, Z.; McKone, J. R.; Xiang, C. X.; Grimm, R. L.; Warren, E. L.; Spurgeon, J. M.; Lewerenz, H. J.; Brunschwig, B. S.; **Lewis, N. S.** "Comparison between the measured and modeled hydrogen-evolution activity of Ni- or Pt-coated silicon photocathodes" *International Journal of Hydrogen Energy* **2014,** *39* (28), 16220-16226.

6. Hu, S.; Shaner, M. R.; Beardslee, J. A.; Lichterman, M.; Brunschwig, B. S.; **Lewis, N. S.** "Amorphous TiO_2 coatings stabilize Si, GaAs, and GaP photoanodes for efficient water oxidation" *Science* **2014,** *344* (6187), 1005-1009.
7. McKone, J. R.; Pieterick, A. P.; Gray, H. B.; **Lewis, N. S.** "Hydrogen evolution from Pt/Ru-coated p-type WSe_2 photocathodes" *J. Am. Chem. Soc.,* **2013**, *135*, 223-231.
8. **Lewis, N. S.** "An integrated, systems approach to the development of solar-fuels generators" *Electrochemical Society Interface* **2013,** *22* (2), 43-49.
9. Hu, S.; Chi, C.-Y.; Fountaine, K. T.; Yao, M.; Atwater, H. A.; Dapkus, P. D.; **Lewis, N. S.**; Zhou, C. "Optical, Electrical, and Solar Energy-Conversion Properties of Gallium Arsenide Nanowire-Array Photoanodes" *Energy Environ. Sci.,* **2013**, *6*, 1879–1890.
10. Haussener, S.; Xiang, C.; Spurgeon, J. M.; Ardo, S.; **Lewis, N. S.**; Weber, A. Z. "Modeling, simulation, and design criteria for photoelectrochemical water-splitting systems" *Energy Environ. Sci.,* **2012**, *5*, 9922–9935.

•Synergistic Activities

Collaborators and Co-editors

J. Ager (LBNL), K. Akli (OSU), S. Anz (CSU Pomona), H. Atwater (Caltech), A. Benderskii (USC), G. Benedek (MIT), M. Bernasconi (UNIMIB), A. Biacchi (PSU), P. Braun (UIUC), B. Brunschwig (Caltech), R. Brutchey (USC), I. Chorkendorff (D. Esposito (Columbia), M. Freund (FIT), D. Friebel (Stanford), G. Galli (UChi), T. Gao (TE Connectivity), J. Greer (Caltech), W. Goddard (Caltech), H. Gray (Caltech), J. Greer (Caltech), P. Hammond (MIT), S. Haussener (EPFL), J. Hemminger (UCI), H.-J. Lewerenz (Caltech), T. Mayer (Darmstadt), E. McFarland (UCSB), D. Nocera (Harvard), K. Papadantonakis (Caltech), M. Rose (UT Austin), D. Scanlon (UCL), R. Schaak (PSU), S. Sibener (Chicago), M. Soriaga (Caltech), J. Spurgeon (Tennessee), J. Stickney (UGA), K. Walczak (LBNL), M. Walter (UNC), M. Woodka (Lion Cave Capital), J. Yang (UCI), P. Yang (UC Berkeley), C. Zhou (USC).

Graduate and Postdoctoral Advisors

M. S. Advisor: Professor Harry B. Gray, California Institute of Technology.
Ph. D. Advisor: Mark S. Wrighton, Chancellor, Washington University, St. Louis (former faculty, MIT).

Graduate and Postdoctoral Advisees

Graduate Students, Current (26): N. Batara, P. Buabthong, A. Carim, C. Crompton, V. Dix, J. Jiang, P. Kempler, S. Lee, M. Lichterman, I. Moreno-Hernandez, P. Nunez, S. Omelchenko, A. Pieterick, N. Plymale, K. Rinaldi, C. Roske, F. Saadi, L. Schwan, E. Simonoff, A. Thompson, J. Thompson, D. Torelli, J. Wiensch, S. Yalamanchili, E. Yan, X. Zhou.

Postdoctoral Scholars, Current (6): M. C.-Acevedo, S. Francis, A. Nielander, M. Richter, K. Sun, F. Yang.

Graduate Students, 2016 – 2011: J. Beardslee (Kratos), J. Bruce (U. Manitoba), B. Chmielowiec (MIT), E. Garcia (KLA-Tencor), D. Gleason-Rohrer, G. Kimball (Nanosolar), D. Knapp (Applied Materials), H. McCaig, J. McKone (Cornell), P. Narang (Northrup), L. O'Leary (Dow), S. Park (KAIST), E. Santori (Lockheed-Martin), M. Shaner (Carnegie), A. Shing (Lam Research), E. Warren (NREL), D. Wiggenhorn (Intel).

Postdoctoral Scholars 2016 – 2011: S. Ardo (UCI), M. Bierman (Dow), R. Coridan (UARK), M. Dasog (DAL), B. Gallant (MIT), R. Grimm (WPI), S. Hu (Yale), Z. Huang (Bruker), J. John (Dow), M. McDowell (GIT), Q. Mi (DICP), B. Sadtler (WUSTL), J. Sanabria-Chinchilla (CELEQ), N. Strandwitz (Lehigh), J. Velazquez (UCD), M. Walter (UNCC), K. Wong (Applied Mater.), C. Xiang (Caltech).