



Exponent[®]
Engineering & Scientific Consulting

Naomi Clayman, Ph.D.

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Professional Profile

Trained as an organic chemist, Dr. Clayman specializes in the synthesis and characterization of polymeric materials, particularly electroactive polymers, porous materials, and biodegradable polymers. She has experience in numerous characterization techniques including NMR, EPR, UV-Vis, and FTIR spectroscopy, mass spectrometry techniques such as GC-MS and LC-MS, and molecular weight characterization using MALDI-TOF and GPC. She is also trained in electrochemical techniques and single crystal X-ray diffraction.

Prior to joining Exponent, Dr. Clayman was a fellow of the Center for Molecular Analysis and Design (CMAD) at Stanford University. Her research focused on stimulus responsive metallopolymers that she leveraged for the capture of hazardous gases, such as nitrogen dioxide. She also worked on utilizing organocatalysis and metal-driven catalysis for the synthesis of mechanically robust, biodegradable polymers.

Academic Credentials & Professional Honors

Ph.D., Chemistry, Stanford University, 2019

B.S., Chemistry, University of Chicago, 2014

Professional Affiliations

American Chemical Society

Co-Chair, Distinguished Women in Science Colloquia, Stanford University, 2016-2019

Publications

Lipinski, B. M.; Walker, K. L.; Clayman, N. E.; Morris, L. S.; Jugovic, T. M. E.; Roessler, A. G.; Getzler, Y. D. Y. L.; MacMillan, S. N.; Zare, R. N.; Zimmerman, P. M.; Waymouth, R. M.; Coates, G. W. Mechanistic Study of Isotactic Poly(propylene oxide) Synthesis using a Tethered Bimetallic Chromium Salen Catalyst. *ACS Catalysis*, 2020, 10, 15, 8960-8967.

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Clayman, N. E.; Morris, L. S.; LaPointe, A. M.; Keresztes, I.; Waymouth, R. M.; Coates, G. W. Dual

Catalysis for the Copolymerisation of Epoxides and Lactones. *Chemical Communications*, 2019, 55, 6914-6917.

Clayman, N. E.; Manumpil, M. A.; Umeyama, D.; Rudenko, A. E.; Karunadasa, H. I.; Waymouth, R. M. Carving out Pores in Redox-Active One-Dimensional Coordination Polymers. *Angewandte Chemie International Edition*, 2018, 57, 44, 14585-14588.

Rudenko, A. E.; Clayman, N. E.; Walker, K. L.; Maclaren, J. K.; Zimmerman, P. M.; Waymouth, R. M. Ligand Induced Reductive Elimination of Ethane from Azopyridine Palladium Dimethyl Complexes. *Journal of the American Chemical Society*, 2018, 140, 36, 11408-11415.

Rudenko, A. E.; Clayman, N. E.; Maclaren, J. K.; Waymouth, R. M. Reversible Electropolymerization of Nickel Complexes Based on Redox-Mediated Ligand Exchange, *ChemistrySelect*, 2016, 1, 13, 3491-3496.