

## Nanqi Bao

School of Chemical & Biomolecular Engineering  
Cornell University  
(814) 321-7625  
[nb543@cornell.edu](mailto:nb543@cornell.edu)

### EDUCATION

- Cornell University**, Ithaca, New York, USA Aug. 2018-Present  
Doctor of Philosophy, Chemical Engineering (expected in 2021)
- University of Wisconsin-Madison**, Madison, Wisconsin, USA Aug. 2016-Aug. 2018  
Ph.D. student, Chemical Engineering
- Georgia Institute of Technology**, Atlanta, Georgia, USA Aug. 2015-May 2016  
Master of Science, Chemical Engineering  
Current GPA: 3.90/4.0
- The Pennsylvania State University**, University Park, Pennsylvania, USA Aug. 2013-May 2015  
Bachelor of Science, Materials Science and Engineering  
Minors: Polymer Science, Electronic and Photonic Materials  
Overall GPA: 3.93/4.0
- Harbin Institute of Technology**, Harbin, Heilongjiang Province, China Aug. 2011-July 2015  
Bachelor of Engineering, Materials Science and Engineering

### RESEARCH EXPERIENCE

- Chemoresponsive liquid crystals (LCs) system Jan. 2016-Present  
Under direction of Prof. Nicholas Abbott at UW-Madison and Cornell University
- Dynamics of ion-containing polymer as single ion conductor Jan. 2014-May 2015  
Under direction of Prof. Ralph Colby at Pennsylvania State University
- Fracture property of structural steels 2012 Fall  
Harbin Institute of Technology

### TEACHING EXPERIENCE

- Instructor in CBE 324 (Transport Phenomena Laboratory) Spring 2018  
Department of Chemical & Biological Engineering at UW-Madison

### PUBLICATIONS

- Szilvási, T.\*, **Bao, N.\* (co-first)**, Nayani, K., Yu, H., Rai, P., Twieg, R. J., Mavrikakis, M., Abbott, N. L., *Redox-Triggered Orientational Responses of Liquid Crystals to Chlorine Gas. (Angew. Chem. Int. Ed., 2018, 31,*
- Nayani, K., Rai, P., **Bao, N.**, Yu, H., Mavrikakis, M., Twieg, R. J., Abbott, N. L., *Liquid Crystal with Interfacial Ordering that Enhances Responsiveness to Chemical Targets. (Advanced Materials, 2018, 27, 1706707)*
- Szilvási, T.\*, **Bao, N.\* (co-first)**, Yu, H., Twieg, R. J., Mavrikakis, M., Abbott, N. L., *The Role of Anions in Adsorbate-Induced Anchoring Transitions of Liquid Crystals on Surfaces with Discrete Cation Binding Sites. (Soft Matter, 2018, 14, 797-805)*
- Chen, Q., **Bao, N.**, Wang, J., Tunic, T., Liang, S., Colby, R. H., *Linear Viscoelasticity and Dielectric Spectroscopy of Ionomer/Plasticizer Mixtures: a Transition from Ionomer to Polyelectrolyte. (Macromolecules, 2015, 48 (22), 8240-8252)*

Liang, S., Chen, Q., Choi, U., Bartels, J., **Bao, N.**, Runt, J., Colby, R. H., *Plasticizing Li single-ion conductors with low-volatility siloxane copolymers and oligomers containing ethylene oxide and cyclic carbonates. (J. Mater. Chem. A, 2015, 3, 21269-21276)*

### **CONFERENCE PRESENTATIONS**

Oral Presentation, June 2018: “The role of anions in adsorbate-induced anchoring transitions of liquid crystals on surfaces with discrete cation binding sites”

➤ 93<sup>th</sup> ACS Colloid & Surface Science Symposium, State College, PA

Poster, October 2014: “Linear viscoelasticity and dielectric spectroscopy of ionomer/plasticizer mixture: a transition from ionomer to polyelectrolyte”

➤ 86<sup>th</sup> Annual Meeting of The Society of Rheology, Philadelphia, PA

Poster, October 2014: “Linear viscoelasticity properties of two kinds of ionomers”

➤ Materials Science & Technology 2014, Pittsburg, PA

### **SCHOLARSHIPS & FELLOWSHIPS**

- T.C. Scott Wisconsin Distinguished Fellowship (WDGF) 2016  
Pennsylvania State University
- Milton and Dorothy Henderson Scholarship 2014  
Pennsylvania State University
- Todd George and Madelein Scholarship 2014  
Pennsylvania State University
- Undergraduate Study Abroad Scholarship 2013  
Harbin Institute of Technology
- Materials Science and Engineering Scholarship 2012  
Harbin Institute of Technology

### **AWARDS AND HONORS**

- Exemplary Academic Achievement in the school of Chemical and Biomolecular Engineering at Georgia Tech 2016
- High Distinction Graduate (the second highest GPA in PSU MSE department) 2015
- Michael M. and Mary Jane Coleman Undergraduate Award in Polymer Science and Engineering at Pennsylvania State University 2015
- Third Place Proposal in NAE Grand Challenges for Engineering in PSU (team leader) 2014
- Dean’s List of Materials Science and Engineering 2013 Fall, 2014, 2015 Spring
- Technology Innovation Award in HIT 2012