# Curriculum Vitae:

# Evan K. Wujcik

# Principal Investigator, Materials Engineering And Nanosensor [MEAN] Laboratory Assistant Professor in the Department of Chemical and Biomedical Engineering with joint appointment in the Advanced Structures and Composites Center [ASCC]

The University of Maine

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### PROFESSIONAL APPOINTMENTS

- The University of Maine, Department of Chemical and Biomedical Engineering (Orono, ME USA) Assistant Professor 08/2022-present
- The University of Maine, Advanced Structures & Composites Center (Orono, ME USA) Joint Appointment 08/2022-present
- The University of Alabama, Department of Chemical and Biological Engineering (Tuscaloosa, AL USA) Assistant Professor 1/2017-07/2022
- The University of Alabama, Dept. of Civil, Const., & Environmental Engineering (Tuscaloosa, AL USA) Adjunct Professor 1/2017-07/2022
- The University of Alabama, UA System Tri-campus Materials Science PhD program (Tuscaloosa, AL USA) Affiliated Faculty 1/2017-07/2022
- Lamar University, Dan F. Smith Department of Chemical Engineering (Beaumont, Texas, USA) Adjunct Professor 1/2017-5/2017 Assistant Professor 9/2013-12/2016

### **EDUCATION**

The University of Akron [Akron, OH, USA], *Ph.D. in* Chemical and Biomolecular Engineering [2013] *Doctoral Advisor:* Chelsea N. Monty, Ph.D. (*now at Cleveland State University*) *Dissertation Title:* Discovery of Nanostructured Material Properties for Advanced Sensing Platforms

The University of Rhode Island [Kingston, RI, USA], *M.B.A. in* Management/Entrepreneurship [2011]

- The University of Rhode Island [Kingston, RI, USA], *M.S. in* Chemical Engineering [2009] *Thesis Advisor:* Arijit Bose, Ph.D. *Thesis Title:* Lead Selenide-Titania Heterostructures for High-efficiency Low-cost Solar Cells
- The University of Rhode Island [Kingston, RI, USA], B.S. in Applied Mathematics [2010]
- The University of Rhode Island [Kingston, RI, USA], *B.S. in Chemical Engineering* [Biology Track] [2008] *Research Advisor:* Arijit Bose, Ph.D.

## <u>OVIERVIIEW</u>

Since becoming an independent researcher, Wujcik has **60+ peer-reviewed journal publications** and has been awarded >**\$7 MM** (as PI/Co-PI) with **>\$1 MM being directly awarded to his laboratory** in funding in support of advanced materials, polymer electronics, composites, nanofibers, environmental and wearable sensors, electro-hydrodynamics, and other topics. He has received past funding from NSF, DoD, DoE, EPA, DOI, DoEd, and other regional/state/internal funds. He is recognized for his expertise in the electro-mechanical properties of stretchable conductive polymers, electrohydrodynamics of polymer fibers, and composites for wearable sensors & environmental remediation/sensors. He is a **Founding Associate Editor** of *Advanced Composites & Hybrid Materials* (Springer-Nature; 2022 IF: 20.1), **Early Career Editorial Board Member** of *Composites Communications* (Elsevier; 2022 IF: 8.0), the former Area Chair of the Materials Engineering & Science Division [MESD]-Composites Area of the American Institute of Chemical Engineers [AIChE], and the former Division-Level Director of the MESD of the AIChE. Since 2013, his h-index and total citations have climbed from **3→37** and **1→>4,894**, respectively. His teaching evaluations are consistently high, and he has been recognized via teaching awards. He has served as a department Diversity Advocate and fosters DEI through outreach activities in place for educating and recruiting under-represented STEM students and educators.

# SCHOLARLY ACTIVITY

# FUNDING SUMMARY [Total: >\$7 MM as PI/Co-PI]

**Funding Agencies/Sources while at The University of Maine [8/2022-present]:** National Science Foundation (NSF) – Early CAREER Award (MPS/DMR/Electronic and Photonic Materials); Department of Defense (DoD) - U.S. Army Natick Soldier Systems Center (NSSC); Department of Energy (DoE) – Oak Ridge National Laboratory (ORNL); National Aeronautics & Space Administration (NASA) Maine Space Grant Consortium

**Funding Agencies/Sources while at The University of Alabama [1/2017-7/2022]:** National Science Foundation (NSF) – Early CAREER Award (MPS/DMR/Electronic and Photonic Materials); Department of Defense (DoD); Environmental Protection Agency (EPA); Department of the Interior (DOI); National Science Foundation (NSF); Department of Education (DoEd); South East Conference (SEC) Travel Award; UA Office of Research and Economic Development (ORED) Small Grant Award

**Funding Agencies/Sources while at Lamar University [9/2013-12/2016]:** Environmental Protection Agency (EPA); Texas Workforce Commission (TWC) Governor's Summer Merit Program; Texas Center for Advances in Water and Air Quality (CAWAQ); Texas Higher Education Coordination Board (THECB) Engineering Summer Program; Texas Hazardous Waste Resource Center (THWRC); Lamar University Center for Innovation, Commercialization, and Entrepreneurship (CICE); Lamar University—Research Enhancement Grants (REG); Lamar University—David J. Beck Undergraduate Fellowship; Lamar University—Office of Undergraduate Research (OUR)

### HONORS & RECOGNITIONS

- 2023 Inducted, as a faculty member, to the **Francis Crowe Society**
- 2022 Inducted, as a member, to the **National Academy of Inventors**
- 2022 Department of Defense (DoD) US Air Force Office of Scientific Research (AFOSR) **Air Force Research Laboratory (AFRL) Summer Faculty Fellow** – Materials and Manufacturing Directorate (RX), Polymer and Responsive Materials Team/Flexible Materials & Processes Team
- 2021 Featured as an American Society of Engineering Education (ASEE) PreK-12 Spotlight [July] for impact in pre-college engineering education
- 2021 The University of Alabama Department of Chemical and Biological Engineering's AIChE Outstanding Faculty Member
- 2020 National Science Foundation (NSF) CAREER Award [*The Faculty Early Career Development (CAREER) Program is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization.*]
- 2019 #1 MOST ACCESSED full paper for 2019 in *Macromolecular Chemistry and Physics*
- 2016 Lamar University 2016 University Merit Award [*Distinguished Teaching of an Outstanding Junior Faculty, which has Inspired and Enriched the Lives of Students*]
- 2016 #8 MOST ACCESSED article for 2016 in *WIRES: Nanomedicine and Nanobiotechnology*
- 2016 Promoted to Senior Member of the American Institute of Chemical Engineers (AIChE)
- 2015 #5 MOST ACCESSED full paper for 2015 in *Macromolecular Materials and Engineering*
- 2013 The University of Akron Department of Chemical & Biomolecular Engineering Advisory Board Poster Session Winner (1<sup>st</sup> Place)
- 2012 Selected to participate in the inaugural 2012 AIChE Education Division Future Faculty Program
- 2012 The University of Akron Department of Chemical & Biomolecular Engineering **Outstanding** Graduate Research Fellowship Award recipient
- 2012 AIChE Annual Meeting, Nanoscale Science & Engineering Forum (NSEF) Poster Session Winner (*3<sup>rd</sup> Place*)
- 2011 The University of Akron Department of Chemical & Biomolecular Engineering **Outstanding Teaching Assistant Award** recipient
- 2008-2009 NASA Rhode Island Space Grant Consortium Graduate Fellowship
- 2007-2008 The University of Rhode Island **Dr. David J. Chronley Creativity Award in Chemical** Engineering [*Creativity in Undergraduate Research*]
- 2007 AIChE (Northeast Regional) **Outstanding Student Award**, URI recipient
- 2005-2008 The University of Rhode Island Joseph L. Campanella Scholarship [*Top URI Chemical Engineering student from Bristol County, RI*]
- Wujcik is a member of the following honor societies/orders:
  - National Academy of Inventors
  - Omega Chi Epsilon [The National Honor Society for Chemical Engineering]
  - Tau Beta Pi [The Engineering Honor Society]
  - Sigma Xi [The Scientific Research Society]

- Golden Key International Honour Society [Top 15% of College and University Students]
- Order of the Engineer ["Upholding Devotion to the Standards and Dignity of the Engineering Profession"]
- Francis Crowe Society [The University of Maine College of Engineering Honor Society]

### **MEAN Laboratory Graduate & Undergraduate Researchers' Awards and Honors**

- 2022 Department of Defense (DoD) US Air Force Office of Scientific Research (AFOSR) **Air Force Research Laboratory (AFRL)** Summer Research Gradate Fellow
- 2020-2021 Graduate Assistance in Areas of National Need (GAANN) Fellowship
- 2019 American Institute of Chemical Engineers Annual National Meeting **Environmental Division Poster Session Winner** (*1<sup>st</sup> Place*)
- 2019 American Institute of Chemists Graduate Student Award
- 2016 NASA Texas Space Grant Consortium **2016 STEM Columbia Crew Memorial Scholarship**
- 2016 Lamar University **ACS Chemistry Week Graduate Poster Session Winner** (*2<sup>nd</sup> Place*)
- 2016 University of Texas-San Antonio **Texas Rural Challenge Competition Winner** (*3rd Place*)
- 2016 Rice University Nanotechnology Enabled Water Treatment Competition Finalist (4<sup>th</sup> Place)
- 2016 Lamar University **"What's Your Big Idea?" Competition Winner (***2<sup>nd</sup> Place***)**
- 2016 Lamar University **3<sup>rd</sup> Annual Undergraduate Research Expo Oral Presentation Winner** (1<sup>st</sup> Place)
- 2016 Lamar University **3<sup>rd</sup> Annual Undergraduate Research Expo Poster Session Winner (***1<sup>st</sup> Place***)**
- 2016 Lamar University Office of Undergraduate Research (OUR) Scholarship
- 2016 American Chemical Society **Scholars Program Scholarship**
- 2015 Lamar University 2015 David J. Beck Fellowship [*Top Research Fellowship given to an Undergraduate Student at Lamar University; 1-2 Awarded per Year*] Mentor
- 2015 NASA Texas Space Grant Consortium **2015 STEM Columbia Crew Memorial Scholarship**
- 2015 Air & Waste Management Association Gulf Coast Chapter **Environmental Science and** Engineering Scholarship
- 2013Lamar University Office of Undergraduate Research (OUR) Scholarship

### PEER-REVIEWED PUBLICATIONS

(\* = corresponding author;  $\dagger$  = equal contribution of authors; + = undergraduate researcher; Click DOI for hyperlink)

### The University of Maine (08/2022-present)

- <u>2023</u>
- 62. Colton Duprey, Hadi Rouhi, Saeideh Alipoori, Lauren McLoughlin, Sarah Veres, George Chen, Clint Cook, Olivia Diaz, Emily Linn, Yang Lu,\* Mark Elliott,\* Evan K. Wujcik.\* "Silica Fiber-based Visible Colorimetric Method for On-site Naphthalene Detection." ES Energy and Environment (2023): <u>ACCEPTED 9/13/2023</u>.
- **61.** Mostafa Dadashi Firouzjaei,\* Mohtada Sadrzadeh, Srinivasa Kartik Nemani, **Evan K. Wujcik**, Anasori, Babak, Mark Elliott.\* *"Life Cycle Assessment of Ti*<sub>3</sub>C<sub>2</sub>T x MXene Synthesis." Advanced Materials

35.31 (2023): 2300422. DOI: 10.1002/adma.202300422.

- **60.** Jafarian, Hesam, Mostafa Dadashi Firouzjaei,\* Sadegh Aghapour Aktij, Amir Aghaei, Mohsen Pilevar Khomami, Mark Elliott,\* **Evan K. Wujcik**, Mohtada Sadrzadeh, Ahmad Rahimpour. *"Synthesis of Heterogeneous Metal Organic Framework-Graphene Oxide Nanocomposite Membranes for Water Treatment."* Chemical Engineering Journal 455 (2023): 140851. DOI: 10.1016/j.cej.2022.140851.
- **59.** Firouzjaei, Mostafa Dadashi,\* Ehsan Zolghadr, Ahmad Arabi Shamsabadi, Mohtada Sadrzadeh, Ahmad Rahimpour, Farhad Akbari Afkhami, **Evan K. Wujcik**, Mark Elliott.\* *"Clean water recycling through adsorption via heterogeneous nanocomposites: Silver-based metal-organic framework embellished with graphene oxide and MXene."* Case Studies in Chemical and Environmental Engineering 7 (2023): 100296. DOI: 10.1016/j.cscee.2023.100296.

### <u>2022</u>

**58.** Rouhi, Hadi,<sup>†</sup> Colton Duprey,<sup>†</sup> Clint Cook,<sup>+(NSF REU)</sup> Emily Linn,<sup>+</sup> Sarah Veres,<sup>+</sup> George Chen,<sup>+</sup> Ali Alshaikh, Yang Lu, Leigh Terry,<sup>\*</sup> Mark Elliott,<sup>\*</sup> **Evan K. Wujcik.**<sup>\*</sup> "Point-of-need Quantitative Detection of Trihalomethanes in Environmental Water Samples using a Highly Sensitive and Selective Fiber-based Preconcentration System." Journal of Applied Polymer Science 140.2 (2022): e53294. DOI: 10.1002/app.53294.

### The University of Alabama (1/2017-7/2022)

- **57.** Zolghadr, Ehsan, Mostafa Dadashi Firouzjaei,\* Sadegh Aghapour Aktijc, **Evan K. Wujcik**, Mohtada Sadrzadeh, Ahmad Rahimpour, Farhad Akbari Afkhami, Patrick LeClair, Mark Elliott.\* *"An Ultrasonic-Assisted Rapid Approach for Sustainable Fabrication of Antibacterial and Anti-biofouling Membranes via Metal-Organic Frameworks."* Materials Today Chemistry 26 (2022): 101044. DOI: 10.1016/j.mtchem.2022.101044.
- 56. Yashar Rezaeipour, Ehsan Zolghadr, Parvin Alizadeh\*, Ghazal Sadri, Evan K. Wujcik, Farhad Akbari Afkhami, Mark Elliott,\* Mostafa Dadashi Firouzjaeib.\* "The Anticancer Properties of Metal-Organic Frameworks and Their Heterogeneous Nanocomposites." Biomaterials Advances 139 (2022): 213013. DOI: 10.1016/j.bioadv.2022.213013.

### <u>2021</u>

- 55. [Special Issue: Conjugated Polymer Nanocomposites: Synthesis, Characterization, and Applications] Firda, Putri Bintang Dea, Yoga Trianzar Malik, Jun Kyun Oh, Evan K. Wujcik, Ju-Won Jeon.\* "Enhanced Chemical and Electrochemical Stability of Polyaniline-Based Layer-by-Layer Films." Polymers 13 (2021): 2992. DOI: 10.3390/polym13172992.
- 54. Alipoori, Saeideh, Hadi Rouhi, Emily Linn,<sup>+</sup> Hannah Stumpfl,<sup>+</sup> Hadi Mokarizadeh, Milad Esfahani,<sup>\*</sup> Amanda Koh,<sup>\*</sup> Steven Weinman,<sup>\*</sup> Evan K. Wujcik.<sup>\*</sup> "Polymer-based Devices and Remediation Strategies for Emerging Contaminants in Water." ACS Applied Polymer Materials 3.2 (2021): 549-577. DOI: 10.1021/acsapm.0c01171.

### <u>2020</u>

- 53. Liu, Zhongqi,† Yang Lu,† Mathew Confer,† Hao Cui,\* Junhao Li, Yudong Li, Yifan Wang, Shane C. Street, Evan K. Wujcik,\* Ruigang Wang.\* *"Thermally Stable RuO<sub>x</sub>-CeO<sub>2</sub> Nanofiber Catalysts for Low-Temperature CO Oxidation."* ACS Applied Nano Materials 3.8 (2020): 8403–8413. DOI: 10.1021/acsanm.0c01815.
- **52.** Pejman, Mehdi, Mostafa Dadashi Firouzjaei, Sadegh Aghapour, Parnab Das, Ehsan Zolghadr, Hesam Jafarian, Ahmad Arabi Shamsabadi, Mark Elliott, Milad Rabbani Esfahani,\* Marco Sangermano, Mohtada Sadrzadeh, **Evan K. Wujcik**, Ahmad Rahimpour,\* Alberto Tiraferri.\*

"Improved Antifouling and Antibacterial Properties of Forward Osmosis Membranes through Surface Modification with Zwitterions and Silver-based Metal Organic Frameworks." Journal of Membrane Science 611 (2020): 118352. DOI: 10.1016/j.memsci.2020.118352.

- **51.** Lu, Yang, Zhongqi Liu, Seung Woon "Paul" You,<sup>+</sup> Lauren McLoughlin,<sup>+</sup> Bailey Bridgers,<sup>+</sup> Xifan Wang, Ruigang Wang, Zhanhu Guo, **Evan K. Wujcik.\*** "*Electrospun Carbon/Iron Nanofiber: The Catalytic Effects of Iron and Application in Cr(VI) Removal.*" Carbon 166 (2020): 227-244. DOI: 10.1016/j.carbon.2020.05.031.
- 50. [*Invited Review*] Horne, Jesse, Lauren McLoughlin,<sup>+</sup> Bailey Bridgers,<sup>+</sup> Seth Hayes,<sup>+</sup> Evan K. Wujcik.\* "Recent Developments in Nanofiber-based Sensors for Disease Detection, Immunosensing, and Monitoring." Sensors and Actuators Reports 2.1 (2020): 100005. DOI: 10.1016/j.snr.2020.100005.
- **49.** [*Review in Invitation-only Issue entitled:* Advanced Materials Interfaces Hall of Fame *highlighting the work of top interface and surface scientists*] Horne, Jesse, Lauren McLoughlin,<sup>+</sup> Elizabeth Bury,<sup>+</sup> Amanda Koh,\* **Evan K. Wujcik.\*** "*Interfacial Phenomena of Advanced Composite Materials towards Wearable Platforms for Biological and Environmental Monitoring Sensors, Armor, and Soft Robotics.*" Advanced Materials Interfaces 7.4 (2020): 1901851. DOI: 10.1002/admi.201901851.
- **48.** Mace, Annsley,<sup>+</sup> Melisa Montalvo,<sup>+</sup> Yang Lu, **Evan K. Wujcik**, Ju-Won Jeon.\* *"Three-Dimensional Porous Graphene Anodes for Sodium-Ion Batteries"* Functional Materials Letters 13.1 (2020): 1951009. DOI: 10.1142/S1793604719510093.
- **47.** Jeon, Ju-Won,\* Manik Chandra Biswas, Corey Patton, **Evan K. Wujcik.** "Water-Processable, Sprayable LiFePO<sub>4</sub>/Graphene Hybrid Cathodes for High-Power Lithium Ion Batteries." Journal of Industrial and Engineering Chemistry 84 (2020): 72-81. DOI: 10.1016/j.jiec.2019.12.022.

### <u>2019</u>

- **46.** Lu, Yang,<sup>†</sup> Guoqiang Yu,<sup>†</sup> Xin Wei,<sup>+</sup> Chuanxing Zhan, Ju-Won Jeon, Xifang Wang, Clayton Jeffryes, Zhanhu Guo, Suying Wei, **Evan K. Wujcik**.\* *"Fabric/Multi-Walled Carbon Nanotube Sensor for Portable On-Site Copper Detection in Water."* Advanced Composites and Hybrid Materials 2.4 (2019): 711-719. DOI: 10.1007/s42114-019-00122-7.
- **45.** Sun, Jingyao, Jian Zhuang, Ying Liu, Hong Xu, Jesse Horne, **Evan K. Wujcik**, Haichao Liu, Jong E. Ryu, Daming Wu, Zhanhu Guo.\* "*Development and Application of Hot Embossing in Polymer Processing: A Review.*" ES Materials & Manufacturing 6 (2019): 3-17. DOI: 10.30919/esmm5f605.
- **44.** Liu, Zhongqi, Yang Lu, Junhao Li, Yifan Wang, **Evan K. Wujcik**, Ruigang Wang.\* "*Electron Microscopy Investigation of CeO*<sub>2</sub> *Nanofibers Supported Noble Metal (Pt, Pd and Ru) Catalysts for CO Oxidation.*" Microscopy and Microanalysis 25.2 (2019): 2176-2177. DOI: 10.1017/S1431927619011619.
- **43.** Lu, Yang, Zhongqi Liu, Haoming Yan, Qing Peng, Ruigang Wang, Mark E. Barkey, Ju-Won Jeon,\* **Evan K. Wujcik.**\* *"Ultra-Stretchable Conductive Polymer Complex as Strain Sensor with Repeatable Autonomous Self-Healing Ability."* ACS Applied Materials & Interfaces 11.22 (2019): 20453-20464. DOI: 10.1021/acsami.9b05464.
- 42. [#1 MOST ACCESSED full paper for 2019 in MMC&P] Yang, Jing, Wenqing Yang, Xuanlun Wang,\* Mengyao Dong,\* Hu Liu, Evan K. Wujcik, Qian Shao, Shide Wu, Tao Ding,\* Zhanhu Guo.\* "Synergistically Toughening Polyoxymethylene by Methyl Methacrylate–Butadiene–Styrene Copolymer and Thermoplastic Polyurethane." Macromolecular Chemistry and Physics 220.12 (2019): 1800567. DOI: 10.1002/macp.201800567.

- **41.** Doan, Linh, Yang Lu, Megha Karatela,<sup>+</sup> Vu Phan,<sup>+</sup> Clayton Jeffryes,\* Tracy Benson,\* **Evan K. Wujcik.**\* "Surface Modifications of Superparamagnetic Iron Oxide Nanoparticles with Polylactic Acid-Polyethylene Glycol Diblock Copolymer and Graphene Oxide for a Protein Delivery Vehicle." Engineered Science 7 (2019): 10-16. DOI: 10.30919/es8d510.
- Zhao, Junkai, Shengsong Ge,\* Yanling Pan, Rujin Li, Wei Xie, Vignesh Murugadoss, Yang Lu, Evan K. Wujcik, Qian Shao, Tingting Wu, Duo Pan, Xianmin Mai,\* Zhanhu Guo.\* "Microwave Hydrothermal Synthesis of In<sub>2</sub>O<sub>3</sub>-ZnO Composites and their Enhanced Photoelectrochemical Properties." Journal of The Electrochemical Society 166.5 (2019): H3074-H3083. DOI: 10.1149/2.0071905jes.
- **39.** Song, Bo, Tingting Wang, Hu Liu, Xianmin Mai,\* Xiaojing Wang, Yang Lu, Li Wang, Ning Wang, Yudong Huang, **Evan K. Wujcik**, Zhanhu Guo.\* *"Interfacially Reinforced Carbon Fiber/Epoxy Composite Laminates via in-situ Synthesized Graphitic Carbon Nitride (g-C<sub>3</sub>N<sub>4</sub>)." Composites Part B: Engineering 158 (2019): 259-268. DOI: 10.1016/j.compositesb.2018.09.081.*
- 38. Idrees, Muhammad, Saima Batool, Jie Kong\*, Qiang Zhuang, Hu Liu, Qian Shao, Na Lu, Yining Feng, Evan K. Wujcik, Qiang Gao, Tao Ding\*, Renbo Wei\*, Zhanhu Guo.\* "Polyborosilazane derived ceramics Nitrogen sulfur dual doped graphene nanocomposite anode for enhanced lithium ion batteries." Electrochimica Acta 296 (2019): 925-937. DOI: 10.1016/j.electacta.2018.11.088.

### <u>2018</u>

- **37.** Dong, Mengyao, Qiang Li, Hu Liu,\* Chuntai Liu,\* **Evan K. Wujcik**, Qian Shao, Tao Ding,\* Xianmin Ma,\* Changyu Shen, and Zhanhu Guo.\* *"Thermoplastic Polyurethane-Carbon Black Nanocomposite Coating: Fabrication and Solid Particle Erosion Resistance."* Polymer 158 (2018): 381-390. DOI: 10.1016/j.polymer.2018.11.003.
- **36.** Wang, Bin, Tingting Wu, Subramania Angaiah, Vignesh Murugadoss, Jong-Eun Ryu, **Evan K. Wujcik**, Na Lu, David P. Young, Qiang Gao and Zhanhu Guo.\* *"Development of Nanocomposite Adsorbents for Heavy Metal Removal from Wastewater."* **ES Materials & Manufacturing 2** (2018): 35-44. DOI: 10.30919/esmm5f175.
- **35.** Wei, Huige,\* Junhui Ma, Yapeng Shi, Dapeng Cui, Mingzhu Liu, Na Lu, Ning Wang, Tingting Wu, **Evan K. Wujcik** and Zhanhu Guo.\* *"Sustainable Cross-linked Porous Corn Starch Adsorbents with High Methyl Violet Adsorption."* **ES Materials & Manufacturing 2** (2018): 28-34. DOI: 10.30919/esmm5f162.
- 34. [Invited Article in Special Issue entitled: Biosensors 2018] Lu, Yang, Manik Chandra Biswas, Zhanhu Guo, Ju-Won Jeon,\* Evan K. Wujcik.\* "Recent Developments in Bio-monitoring via Advanced Polymer Nanocomposite-based Wearable Strain Sensors" Biosensors and Bioelectronics 123 (2018): 167-177. DOI: 10.1016/j.bios.2018.08.037.
- **33.** Liu, Xianhu, Yamin Pan,\* Guoqiang Zheng, Hu Liu, Qiang Chen, Mengyao Dong, Chuntai Liu,\* Jiaoxia Zhang, Ning Wang, **Evan K. Wujcik**, Tingxi Li, Changyu Shen,\* Zhanhu Guo.\* "*Overview of the Experimental Trends in Water-Assisted Injection Molding.*" Macromolecular Materials and Engineering 303.8 (2018): 1800035. DOI: 10.1002/mame.201800035.
- **32.** Ma, Yong,\* Mingliang Ma, Xunqian Yin, Qian Shao, Na Lu, Yining Feng, Yang Lu, **Evan K. Wujcik**, Xianmin Mai, Chao Wang, Zhanhu Guo.\* *"Tuning polyaniline nanostructures via end group substitutions and their morphology dependent electrochemical performances"* Polymer 156 (2018): 128-135. DOI: 10.1016/j.polymer.2018.09.051.
- **31.** Du, Huayun, Cindy Xinxin Zhao, Jing Lin,\* Jiang Guo, Bin Wang, Zhen Hu,\* Qian Shao, Duo Pan, **Evan K. Wujcik,** Zhanhu Guo.\* "*Carbon Nanomaterials in Direct Liquid Fuel Cells.*" The

Chemical Record 18.9 (2018): 1365-1372. DOI: 10.1002/tcr.201800008.

- **30.** Lv, Longfei, Jiurong Liu,\* Chaobo Liang, Junwei Gu,\* Hu Liu, Chuntai Liu,\* Yang Lu, Kai Sun, Runhua Fan, Ning Wang, Na Lu, Zhanhu Guo,\* **Evan K. Wujcik.\*** "An Overview of Electrically Conductive Polymer Nanocomposites toward Electromagnetic Interference Shielding." Engineered Science 2 (2018): 26-42. DOI: 10.30919/es8d615.
- 29. [*Communication*] Wang, Chao,\* Zhenfeng He,\* Xiaofeng Xie,\* Xianmin Mai, Yingchun Li, Tingxi Li, Min Zhao, Chao Yan, Hu Liu, **Evan K. Wujcik**, Zhanhu Guo.\* "*Controllable Crosslinking Anion Exchange Membranes with Excellent Mechanical and Thermal Properties.*" Macromolecular Materials and Engineering 303.3 (2018): 1700462. DOI: 10.1002/mame.201700462.
- Xu, Miaojun, Kun Ma, Dawei Jiang, Jiaoxia Zhang, Min Zhao, Xingkui Guo, Qian Shao, Evan K. Wujcik, Bin Li,\* Zhanhu Guo.\* "Hexa-[4-(glycidyloxycarbonyl) phenoxy]cyclotriphosphazene chain extender for preparing high-performance flame retardant polyamide 6 composites." Polymer 146 (2018): 63-72. DOI: 10.1016/j.polymer.2018.05.018.
- Aceto, Stephanie R., Yang Lu, Rhada Narayanan, David Heskett, Evan K. Wujcik,\* Arijit Bose.\* "Hexagonally Patterned Mixed Surfactant Room Temperature Synthesis of Titania-Lead Selenide Nanocomposites." Advanced Composites and Hybrid Materials 2 (2018): 389-396. DOI: 10.1007/s42114-018-0028-3.
- **26.** Kong, Yufei, Yingchun Li,\* Guosheng Hu, Jing Lin,\* Duo Pan, Dongyao Dong, **Evan K. Wujcik**, Qian Shao, Minjian Wu, Jizhang Zhao, Zhanhu Guo.\* "*Preparation of Polystyrene-b-poly(ethylene/propylene)-b-polystyrene Grafted Glycidyl Methacrylate and its Compatibility with Recycled Polypropylene/Recycled High Impact Polystyrene Blends.*" Polymer 145 (2018): 232-241. DOI:10.1016/j.polymer.2018.05.017.
- **25.** Pan, Yamin, Dirk W. Schubert, Jong Eun Ryu, **Evan K. Wujcik**, Chuntai Liu, Changyu Shen, Xianhu Liu.\* "*Dynamic Oscillatory Rheological Properties of Polystyrene/Poly(methyl methacrylate) Blends and their Composites in the Presence of Carbon Black.*" Engineered Science 1 (2018): 86-94. DOI: 10.30919/es.180402.
- 24. Wang, Chao,\* Biming Mo, Zhenfeng He,\* Qian Shao, Duo Pan, **Evan K. Wujck**, Jiang Guo,\* Xinling Xie, Xiaofeng Xie,\* Zhanhu Guo.\* "*Crosslinked Norbornene Copolymer Anion Exchange Membrane for Fuel Cells.*" Journal of Membrane Science 556 (2018): 118-125. DOI: 10.1016/j.memsci.2018.03.080.
- 23. Wang, Chao,\* Biming Mo, Zhenfeng He, Xiaofeng Xie,\* Cindy Xinxin Zhao, Liqun Zhang, Qian Shao, Xingkui Guo, Evan K. Wujcik, Zhanhu Guo.\* "Hydroxide ions transportation in polynorbornene anion exchange membrane." Polymer 138 (2018): 363-368. DOI: 10.1016/j.polymer.2018.01.079.
- <u>2017</u>
- 22. Wang, Caifeng, Min Zhaob, Jun Li, Jiali Yu, Shaofan Sun, Shengsong Ge, Xingkui Guo, Fei Xie, Bo Jiang, Evan K. Wujcik, Yudong Huang,\* Ning Wang,\* Zhanhu Guo.\* *"Silver Nanoparticles/Graphene Oxide Decorated Carbon Fiber Synergistic Reinforcement in Epoxy-based Composites."* Polymer 131 (2017): 263-271. DOI: 10.1016/j.polymer.2017.10.049.
- Yu, Guoqiang, Yang Lu, Jiang Guo, Manisha Patel,<sup>+</sup> Adarsh Bafana, Bin Qiu, Clayton Jeffryes, Suying Wei,\* Zhanhu Guo,\* and Evan K. Wujcik.\* "Carbon Nanotubes, Graphene, and their Derivatives for Heavy Metal Removal." Advanced Composites and Hybrid Materials 1.1 (2018): 56-78. DOI: 10.1007/s42114-017-0004-3.
- **20.** Ma, Yanli, Ling Lyu, Yuanru Guo, Yujie Fu, Qian Shao, Kai Sun, Xingkui Guo, **Evan K. Wujcik**, and Zhanhu Guo\*. "Porous Lignin Based Poly(acrylic acid)/Organo-montmorillonite Composites: Swelling Behaviors and Rapid Removal of Pb(II) Ions." Polymer 128 (2017): 12-23.

DOI: 10.1016/j.polymer.2017.09.009.

- Seemaladinne, Ramanjaneyulu, Sahithya Pati, Krishna Kharel, Adarsh Bafana, Amal Al-Wahish, Evan K. Wujcik, Ozge Gunaydin-Sen.\* "Polyvinylpyrrolidone Confined with Ammonia Borane for Hydrogen Storage: Comparison of Different Molecular Weights." Journal of Physics and Chemistry of Solids: 110 (2017): 394-400. DOI: 10.1016/j.jpcs.2017.05.033.
- Zhan, Chuanxing, Guoqiang Yu, Yang Lu, Luyan Wang, Evan K. Wujcik, and Suying Wei.\* "Conductive Polymer Nanocomposites: A Critical Review of Modern Advanced Devices." Journal of Materials Chemistry C: Materials for Optical, Magnetic, and Electronic Devices 5 (2017): 1569-1585. DOI: 10.1039/C6TC04269D.
- Kharel, Krishna, Radhika Gangineni, Lauren Ware, Yang Lu, Evan K. Wujcik, Suying Wei, Ozge Gunaydin-Sen.\* "Dehydrogenation Properties of Ammonia Borane–Polyacrylamide Nanofiber Hydrogen Storage Composites." Journal of Materials Science 52.9 (2017): 4894-4902. DOI: 10.1007/s10853-016-0724-8.
- Bafana, Adarsh Pradip, Xingru Yan, Xin Wei,<sup>+</sup> Manisha Patel,<sup>+</sup> Zhanhu Guo,\* Suying Wei,\* Evan K.
   Wujcik.\* "Polypropylene Nanocomposites Reinforced with Low Weight Percent Graphene Nanoplatelets." Composites Part B: Engineering 109 (2017): 101-107. DOI: 10.1016/j.compositesb.2016.10.048.

### Lamar University (9/2013-12/2016)

### <u>2016</u>

- **15.** [*Invited Research Article*] **Wujcik, Evan K.**,\* Stephanie R. Aceto, Rhada Narayanan, Arijit Bose.\* *"Self-Assembly of Lead Selenide Nanostructures Organized Across Multiple Length Scales and Dimensions."* Journal of Nanomaterials 2016 (2016): 1-6. DOI: 10.1155/2016/9575839.
- **14.** Rodriguez, Alvaro A., Chelsea N. Monty,\* Christopher M. Miller, Hongbo Cong, and **Evan K. Wujcik**. "Laboratory Techniques for Evaluating the Effectiveness of Salt Neutralizers for the Corrosion Prevention of Winter Maintenance Equipment." Anti-corrosion Methods and Materials 63.6 (2016): 13-27. DOI: 10.1108/eb020378.
- [Invited Review in Special Issue entitled: Biosynthetic Nanoparticles and Nanomaterials for Biotechnological and Biomedical Applications] Dahoumane, Si Amar, Evan K. Wujcik, and Clayton Jeffryes.\* "Noble Metal, Oxide, and Chalcogenide-based Nanomaterials from Scalable Phototrophic Culture Systems." Enzyme and Microbial Technology (2016): 499-507. DOI: 10.1016/j.enzmictec.2016.06.008.
- [#8 MOST ACCESSED article in WIRES: Nanomedicine and Nanobiotechnology for 2016] Lu, Yang, Jiangnan Huang, Guoqiang Yu, Romel Cardenas,<sup>+</sup> Suying Wei,\* Zhanhu Guo,\* and Evan K. Wujcik.\* "Coaxial Electrospun Nanostructures: Applications in Drug Delivery and Tissue Engineering." WIREs: Nanomedicine and Nanobiotechnology 8.5 (2016): 654–677. DOI: 10.1002/wnan.1391.
- **11. Wujcik, Evan K.,**\* Stephen E. Duirk, George G. Chase, and Chelsea N. Monty.\* "A Visible Colorimetric Sensor Based On Nanoporous Polypropylene Fiber Membranes for the Determination of Trihalomethanes in Treated Drinking Water." Sensors and Actuators B: Chemical 223 (2016): 1-8. DOI: 10.1016/j.snb.2015.09.004.

### <u>2015</u>

 Afreh, Isaac, Evan K. Wujcik, Nathaniel J. Blasdel, Benjamin Sauer,<sup>+</sup> Susan Kaya,<sup>+</sup> Steven Duirk, and Chelsea N. Monty.<sup>\*</sup> "Detection of Halogenated Organics by Their Inhibitory Action in a Catalytic Reaction Between Dimethyl Acetylenedicarboxylate and 2-Methyl-4-Nitroaniline." Journal of Analytical Chemistry 70.7 (2015): 825-830. DOI: 10.1134/S1061934815070059.

- **9.** [*Invited Feature Article*] **Wujcik, Evan K.**,\* Stephanie R. Aceto, David Heskett, and Arijit Bose. "Synthesis of Co-Electrospun Lead Selenide Nanostructures within Anatase Titania Nanotubes for Advanced Photovoltaics." Fibers 3.2 (2015): 172-183. DOI: 10.3390/fib3020173.
- 8. [*Invited Feature Article in Special Issue entitled: Nanomaterials for Energy and Sustainability Applications*] Wang, Yiran, Huige Wei, Yang Lu, Suying Wei,\* Evan K. Wujcik,\* and Zhanhu Guo.\*"*Multifunctional Carbon Nanostructures for Energy Storage Applications.*" Nanomaterials 5.2 (2015): 755-777. DOI: 10.3390/nano5020755.
- [*Invited Review*] Sharma, Jaishri, Monira Lizu, Mark Stewart,<sup>+</sup> Kyle Zygula,<sup>+</sup> Yang Lu, Rajat Chauhan, Xingru Yan, Zhanhu Guo,\* Evan K. Wujcik,\* and Suying Wei.\* "*Multifunctional Nanofibers towards Active Biomedical Therapeutics*." Polymers 7.2 (2015): 186-219. DOI: 10.3390/polym7020186.
- 6. [#5 MOST ACCESSED full paper for 2015 in MM&E] Liu, Jie,† Jiangnan Huang,† Evan K. Wujcik,\* Bin Qiu, Dan Rutman, Enrique Salazar,<sup>+</sup> Honglin Qu, Xi Zhang, Xingru Yan, Suying Wei,\* and Zhanhu Guo.\* "Hydrophobic Electrospun Polyimide Nanofibers for Self-Cleaning Materials." Macromolecular Materials and Engineering 300.3 (2015): 358-368. DOI: 10.1002/mame.201400307.

### <u>2014</u>

- Blasdel, Nathaniel J., Evan K. Wujcik, Joan Carletta, Kye-Shin Lee, Chelsea N. Monty,\* and Christopher M. Miller. "Fabric Nanocomposite Resistance Temperature Detector." IEEE Sensors Journal 15.1 (2014): 300-306. DOI: 10.1109/JSEN.2014.2341915.
- 4. Wujcik, Evan K.,\* Huige Wei, Xi Zhang, Jiang Guo, Xingru Yan, Neha Sutrave,<sup>+</sup> Suying Wei, and Zhanhu Guo.\* "Antibody Nanosensors: A Detailed Review." RSC Advances 4.82 (2014): 43725-43745. DOI: 10.1039/C4RA07119K.

### The University of Akron (9/2011-8/2013)

# <u>2013</u>

- **3. Wujcik, Evan K.**, Nathaniel J. Blasdel, Daniel Trowbridge,<sup>+</sup> and Chelsea N. Monty.\* "*Ion Sensor for the Quantification of Sodium in Sweat Samples.*" IEEE Sensors Journal 13.9 (2013): 3430–3436. DOI: 10.1109/JSEN.2013.2257168.
- [*Invited Review*] Wujcik, Evan K. and Chelsea N. Monty.\* "Nanotechnology for Implantable Sensors: Carbon Nanotubes and Graphene in Medicine." WIREs: Nanomedicine and Nanobiotechnology 5.3 (2013): 233–249. DOI: 10.1002/wnan.1213.
- 1. Wujcik, Evan K., Nicolas J. Londoño, Stephen E. Duirk, Chelsea N. Monty,\* and Richard I. Masel. "An Acetylcholinesterase-inspired Biomimetic Toxicity Sensor." Chemosphere 91.8 (2013): 1176–1182. DOI: 10.1016/j.chemosphere.2013.01.027.

# <u>PATENTS</u>

### The University of Alabama (1/2017-7/2022)

- **3.** *Inventors:* **Evan K. Wujcik**, Ju-Won Jeon, and Yang Lu. *Assignee*: The University of Alabama. *Self-Healing and Stretchable Polymeric Compositions*. Filed: 5/9/2023. **U.S. Divisional Patent Application**: **17/395,942**.
- Inventors: Evan K. Wujcik, Ju-Won Jeon, and Yang Lu. Assignee: The University of Alabama. Self-Healing and Stretchable Polymeric Compositions. Filed: 12/6/2018. Awarded: 8/10/2021. U.S. Patent: 11,087,899.

### The University of Akron (9/2011-8/2013)

 Inventors: Chelsea N. Monty, Evan K. Wujcik, and Nathaniel J. Blasdel. Assignee: The University of Akron. Flexible Electrode for Detecting Changes in Temperature and Sodium Ion Concentration in Sweat. Filed: 1/28/2013, Awarded: 3/28/2017. U.S. Patent: 9,603,560.

### PEER-REVIEWED BOOK CHAPTERS

### The University of Alabama (1/2017-7/2022)

 [Invited Chapter] Yang Lu, Linh Doan, Adarsh Bafana, Guoqiang Yu, Clayton Jeffryes, Tracy Benson, Suying Wei, and Evan K. Wujcik. "CHAPTER 6: Multifunctional Nanocomposite Sensors for Environmental Monitoring." Polymer-Based Multifunctional Nanocomposites and Their Applications. Elsevier: New York, NY, USA (2018): 157-174. DOI: 10.1016/B978-0-12-815067-2.00006-8.

### Lamar University (9/2013-12/2016)

- [Invited Chapter] Qingliang He, Xingru Yan, Jiang Guo, Xi Zhang, Huige Wei, Dawei Jiang, Xin Wei, Yiran Wang, Daowei Ding, Suying Wei, Evan K. Wujcik, and Zhanhu Guo. "CHAPTER 9: Applications of Calorimetry on Polymer Nanocomposites." Polymer Nanocomposites: Electrical and Thermal Properties. Springer International Publishing AG: Cham, Switzerland (ZG) (2016): 243-254. DOI: 10.1007/978-3-319-28238-1\_9.
- [*Invited Chapter*] Huige Wei, Bin Qiu, Jiang Guo, Yiran Wang, Daowei Ding, Suying Wei, Evan K. Wujcik, and Zhanhu Guo. "*CHAPTER 3: Synthesis of Multifunctional Carbon Nanostructures*." <u>Handbook of Carbon Nanomaterials – Volume 7: Synthetic Developments of Graphene & Nanotubes</u>. World Scientific Publishing, Co.: Washington, D.C., USA (2015): 89-126. DOI: 10.1142/9789814678919\_0003.

### PEER-REVIEWED CONFERENCE PROCEEDINGS

### The University of Alabama (1/2017-7/2022)

- **3. Wujcik, Evan K.** *"Self-Healable Ultra-Stretchable Wearable Sensor Materials."* Journal of Electrical Engineering and Electronic Technology (2020). *In Press: 9/21/2020.*
- **2. Wujcik, Evan K.**, Ju-Won Jeon, and Yang Lu. "*Piezoelectric Ultra-Stretchable Strain Sensor with Excellent Linearity and Unique Self-Healing Ability.*" Proceedings of IEEE SoutheastCon 2019 (2019). ACCEPTED 1/31/2019.
- **1. Wujcik, Evan K.** and Yang Lu. "Advanced Nanomaterials for Bio-Monitoring." Proceedings of IEEE SoutheastCon 2018 (2018). DOI: 10.1109/SECON.2018.8479069.

### <u>NON-PEER-REVIEWED EDITORIALS</u>

#### The University of Alabama (1/2017-7/2022)

2. [*Editorial as Founding Associate Editor in Inaugural Issue*] Gu, Hongbo, Chuntai Liu, Jiahua Zhu, Junwei Gu, Evan K. Wujcik, Lu Shao, Ning Wang, Huige Wei, Roberto Scaffaro, Jiaoxia Zhang, Zhanhu Guo.\* "*Introducing advanced composites and hybrid materials.*" Advanced Composites and Hybrid Materials 1.1 (2017): 56-78. DOI: 10.1007/s42114-017-0017-y.

 [*Editorial in Guest Edited Special Issue*] Qin Hu, Evan K. Wujcik, Antonios Kelarakis, Jobin Cyriac, and Xiaojuan Gong. "*Carbon-Based Nanomaterials as Novel Nanosensors*." Journal of Nanomaterials 2017 (2017): 1-2. DOI: 10.1155/2017/3643517.

## **INVITED TALKS**

## The University of Maine (8/2022-present)

Given

- **24.** University of New Hampshire Materials Science & Engineering Program (March 2023) in Durham, NH, USA
- **23.** Keynote Speaker at the 94<sup>th</sup> New England Complex Fluids Symposium (March 2023) in Kingston, RI, USA

## The University of Alabama (1/2017-7/2022)

- 22. U.S. Air Force Research Laboratory (May 2022) in Wright-Patterson AFB, OH, USA
- **21.** University of Wisconsin-Milwaukee College of Engineering & Applied Science (April 2022) in Milwaukee, WI, USA
- 20. University of Idaho Department of Chemistry (April 2022) in Moscow, ID, USA
- **19.** South Dakota School of Mines and Technology Department of Chemical and Biological Engineering (March 2022) in Rapid City, SD, USA
- **18.** Michigan State University Department of Civil and Environmental Engineering (March 2022) in East Lansing, MI, USA [delivered virtually]
- **17.** SUNY-College of Environmental Science & Forestry Department of Chemical Engineering (March 2022) in Syracuse, NY, USA
- **16.** University of South Carolina Department of Chemical Engineering (November 2021) in Columbia, SC, USA [delivered virtually due to COVID-19 pandemic]
- **15.** Structure-Property-Function Relationships in Polymers Symposium at Southeast Regional American Chemical Society (SERMACS) 2021 Meeting (November 2021) in Birmingham, AL, USA
- **14.** Carbon Chemistry and Materials 2021 (November 2021) in Rome, Italy [delivered virtually due to COVID-19 pandemic]
- **13.** Oklahoma State University School of Chemical Engineering (October 2021) in Stillwater, OK, USA [delivered virtually due to COVID-19 pandemic]
- **12.** Keynote Speaker at the 2nd International Conference on Biosensors and Bioelectronics (July 2021) in Frankfurt, Germany [delivered virtually due to COVID-19 pandemic]
- **11.** Auburn University Department of Chemical Engineering (June 2021) in Auburn, AL, USA
- **10.** Global Conference on Polymers, Plastics and Composites (May 2021) in London, England [delivered virtually due to COVID-19 pandemic]
- **9.** Keynote Speaker at The 5th Electronics and Circuits Conference (ECC 2021) (January 2021) in Sanya, China [delivered virtually due to COVID-19 pandemic]
- 8. Topical Conference (T09) Sensors Topical Plenary Speaker at the 2020 American Institute of Chemical Engineers (AIChE) Annual Meeting (November 2020) in San Francisco, CA, USA [delivered virtually due to COVID-19 pandemic]
- **7.** Keynote Speaker at the 2020 International Conference on Materials Chemistry and Composite Materials (MCCM 2020) (November 2020) in Guilin, China [delivered virtually due to COVID-19

pandemic]

**6.** Michigan Technological University Department of Chemical Engineering (March 2020) in Houghton, MI, USA

### Lamar University (9/2013-12/2016)

- University of Alabama Department of Chemical and Biological Engineering (September 2016) in Tuscaloosa AL, USA
- **4.** Mississippi State University Dave C. Swalm School of Chemical Engineering (September 2016) in Starkville MS, USA
- **3.** Texas A&M University Artie McFerrin Department of Chemical Engineering (August 2016) in College Station, TX, USA

## The University of Akron (8/2011-8/2013)

- **2.** Tennessee Technological University Department of Chemical Engineering (February 2013) in Cookeville, TN, USA
- Manhattan College Department of Chemical Engineering (November 2012) in New York (Bronx), NY, USA

# LABORATORY PRESENTATIONS

(\* indicates presenter; \* indicates undergraduate)

### The University of Maine (8/2022-present)

- 113. Colton Duprey,\* Hadi Rouhi, and **Evan K. Wujcik**. Oral presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: *Fiber Based Colorimetric Sensors for Detection of Organic Analytes in Complex Environmental Media*
- 112. Colton Duprey,\* Yang Lu, and **Evan K. Wujcik**. Oral presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: A Versatile Conductive Ternary Polymer Complex Nanocomposite Sensor with Repeatable Autonomous Self-Healing and Unprecedented Mechanical Properties
- 111. Arya Ajeev,\* Colton Duprey, and **Evan K. Wujcik**. Poster presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: *The Impact of Small Molecule Dopants on a PANI-PAAMPSA Polymer Complex System*
- 110. Colton Duprey,\* Hadi Rouhi, and **Evan K. Wujcik**. Poster presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: *Nanofiber Based Colorimetric Sensors for the Detection of Organic Analytes in Complex Environmental Media*
- 109. Colton Duprey,\* Yang Lu, and **Evan K. Wujcik**. Poster presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: A Versatile Conductive Ternary Polymer Complex Nanocomposite Sensor with Repeatable, Rapid, Autonomous Self-Healing and Unprecedented Mechanical Properties
- **108.** Behrokh Shams,\* Arya Ajeev, Colton Duprey, and **Evan K. Wujcik**. Oral presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: *Cellulose/Essential Oil-Based Polymer Nanocomposites for Enhanced Water Moisture Resistance in Food Packaging*
- **107.** Arya Ajeev,\* Colton Duprey, and **Evan K. Wujcik**. Oral presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: *The Effect of Small Molecule Acids on a PAAMPSA-PANI System*

- **106.** Arya Ajeev,\* Colton Duprey, and **Evan K. Wujcik**. Poster presentation at the 2023 AIChE Annual Meeting (November 2023) in Orlando, FL USA, Title: *The Impact of Small Molecule Dopants on a PANI-PAAMPSA Polymer Complex System*
- **105.** Colton Duprey\* and **Evan K. Wujcik**. Oral presentation at the 243rd ECS Meeting (May 2023) in Boston, MA USA, Title: *Ultrastretchable Self-Healing PAAMPSA/PANI/PA Polymer Complex As a Piezoresistive Sensor*
- **104.** Colton Duprey\* and **Evan K. Wujcik**. Oral presentation at the APS March Meeting 2023 (March 2023) in Las Vegas, NV USA, Title: *The Effects of Small Molecule Acids on PAAMPSA/PANI Systems*
- **103.** Yang Lu, Hadi Rouhi, Colton Duprey, Elham Ghalavand, and **Evan K. Wujcik**.\* Oral presentation at the 2022 AIChE Annual Meeting (November 2022) in Pheonix, AZ USA, Title: *Electrospun Carbon/Iron Composite Fibers and Their Utilization As Adsorbents for Enhanced Cr(VI) Removal from Water*
- **102.** Colton Duprey,\* Hadi Rouhi, Nicole Penners, Katherine Webb,<sup>+,NSF REU</sup> Elham Ghalavand, Sarah Veres,<sup>+</sup> Gina Lusvardi,<sup>+</sup> George Chen,<sup>+</sup> Sofia Luna,<sup>+</sup> Yang Lu, Ju-Won Jeon, and **Evan K. Wujcik**. Oral presentation at the 2022 AIChE Annual Meeting (November 2022) in Pheonix, AZ USA, Title: *Investigation of the Doping Effects of Small Molecule Acids on Self-Healable, Stretchable PANI/Paampsa Conductive Polymer Complexes*
- **101.** Hadi Rouhi, Colton Duprey,\* Elham Ghalavand, Emily Linn,<sup>+</sup> Sarah Veres,<sup>+</sup> George Chen,<sup>+</sup> Leigh Terry, Mark Elliott, and **Evan K. Wujcik**. Oral presentation at the 2022 AIChE Annual Meeting (November 2022) in Pheonix, AZ USA, Title: *Point-of-Use Fiber-Based Haloacetic Acid Sensor for Water at Sub-USEPA Regulation Limits*
- **100.** Colton Duprey,\* Hadi Rouhi, Hannah Stumpft,<sup>+</sup> Emily Linn,<sup>+</sup> Sarah Veres,<sup>+</sup> George Chen,<sup>+</sup> Mark Elliott, and **Evan K. Wujcik**. Oral presentation at the 2022 AIChE Annual Meeting (November 2022) in Pheonix, AZ USA, Title: *A Silica Nanofiber-Based Colorimetric Sensor for the Point-of-Use Detection of Polycyclic Aromatic Hydrocarbons in Water*
- **99.** Hadi Rouhi, Colton Duprey,\* Nicole Penners, Emily Linn,<sup>+</sup> Sarah Veres,<sup>+</sup> George Chen,<sup>+</sup> Ali Alshaikh, Yang Lu, Leigh Terry, Mark Elliott, and **Evan K. Wujcik**. Oral presentation at the 2022 AIChE Annual Meeting (November 2022) in Pheonix, AZ USA, Title: *Point-of-Need Quantitative Detection of Trihalomethanes in Environmental Water Samples Using a Highly Sensitive and Selective Fiber-Based Preconcentration System*
- **98.** Colton Duprey,\* Hadi Rouhi, Yang Lu, and **Evan K. Wujcik**. Oral presentation at the 2022 MRS Fall Meeting (November 2022) in Boston, MA USA, Title: *A Recyclable, Re-Processable Stretchable Conductive Polymer Complex Exhibiting Repeatable Autonomous Self-Healing*
- **97.** Colton Duprey,\* Hadi Rouhi, Yang Lu, and **Evan K. Wujcik**. Oral presentation at the 2022 MRS Fall Meeting (November 2022) in Boston, MA USA, Title: *Ultra-Stretchable Self-Healing Mixed Conductive Polymer Composite with Silver Nanowires Showing Increased Mechanical Performance*
- **96.** Colton Duprey,\* Hadi Rouhi, Katherine Webb,<sup>+,NSF REU</sup> and **Evan K. Wujcik**. Oral presentation at the 2022 MRS Fall Meeting (November 2022) in Boston, MA USA, Title: *Self-Healing Effects of Small Molecule Acids on a Ultra-Conformable Stretchable Mixed Conducting Polymer Complex*

### The University of Alabama (1/2017-7/2022)

- **95.** Colton Duprey\* and **Evan K. Wujcik**. Oral presentation at the 64th Electronic Materials Conference (July 2022) in Columbus, OH USA, Title: *Effects of Small Molecule Dopants in Piezoresistive Sensing PAAMPSA/PANI/PA Polymer Complex*
- **94.** George Chen,<sup>+</sup> Sarah Veres,<sup>+</sup> **Evan K. Wujcik**. Poster presentation at the 2022 UA Undergraduate Research and Creative Activities (URCA) Conference (April 2022) in Tuscloosa, AL, USA, Title: *A*

*Versatile Conductive Ternary Polymer Complex Nanocomposite Sensor with Repeatable, Rapid, Autonomous Self-healing and Unprecedented Mechanical Properties* 

- **93.** Emily Linn,<sup>+</sup> Hannah Stumpfl,<sup>+</sup> **Evan K. Wujcik**. Poster presentation at the 2022 UA Undergraduate Research and Creative Activities (URCA) Conference (April 2022) in Tuscloosa, AL, USA, Title: *Antimicrobial Properties of a Polymer-Based Strain Sensor Containing Polyaniline and Silver Nanowires*
- **92.** Nicole Penners,\* Katherine Webb,<sup>+,NSF REU</sup> Ju-Won Jeon, **Evan K. Wujcik**. Oral presentation at the 2021 Southeastern Regional Meeting of ACS (November 2021) in Birmingham, AL, USA, Title: Investigation of the Doping Effects of Small Molecule Acids on Self-healable, Stretchable PANI/PAAMPSA Conductive Polymer Complexes
- **91.** Colton Duprey,\* Hadi Rouhi, Yang Lu, Mark Elliott, **Evan K. Wujcik**. Oral presentation at the 2021 Southeastern Regional Meeting of ACS (November 2021) in Birmingham, AL, USA, Title: *Silica Fiber-based Visible Colorimetric Method for On-site Polycyclic Aromatic Hydrocarbons Detection*
- **90.** Hadi Rouhi,\* Colton Duprey, Leigh Terry, Mark Elliott, **Evan K. Wujcik**. Poster presentation at the 2021 Southeastern Regional Meeting of ACS (November 2021) in Birmingham, AL, USA, Title: *Point-of-need Qualitative or Quantitative Detection of Trihalomethanes in Environmental Water Samples Using a Highly Sensitive and Selective Fiber-based Preconcentration System*
- **89.** Katherine Webb,\*,+,NSF REU Colton Duprey, Nicole Penners, Hadi Rouhi, **Evan K. Wujcik.** Poster presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: *Doping of Conductive PANI:PAAMPSA with Small Molecule Acids*
- 88. Colton Duprey, Yang Lu, Ju-Won Jeon, Evan K. Wujcik.\* Poster presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: Conductive Ultra-Stretchable Polyaniline/Polyelectrolyte/Small Molecule Polymer Complex with Repeatable Autonomous Self-Healing Ability
- **87.** Colton Duprey,\* Emily Linn,<sup>+</sup> Gina Lusvardi,<sup>+</sup> Macy Kate Petriske,<sup>+</sup> Mark Elliott, **Evan K. Wujcik.** Oral presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: *A Visible Colorimetric Sensor Based on Hydrophobic Syndiotactic Polypropylene Fiber Mats for the Determination of Trihalomethanes in Treated Drinking Water*
- **86.** Colton Duprey, Yang Lu, Ju-Won Jeon, **Evan K. Wujcik.\*** Poster presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: *Ultra-Stretchable Conductive Polyaniline/Polyelectrolyte/Small Molecule Polymer Complex with Repeatable Autonomous Self-Healing Polymer Electronics*
- 85. Colton Duprey,\* Emily Linn,<sup>+</sup> Lauren McLoughlin,<sup>+</sup> Hannah Stumpft,<sup>+</sup> Bailey Bridgers,<sup>+</sup> Mark Elliott, Evan K. Wujcik. Oral presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: Silica Fiber-Based Visible Colorimetric Method for on-Site Polycyclic Aromatic Hydrocarbon Detection
- **84.** Colton Duprey,\* Leigh Terry, Mark Elliott, **Evan K. Wujcik.** Poster presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: *Detection of Disinfection By-Products and Oil Spill Pollutants in Water Utilizing Colorimetric Reactions for a Portable, Inexpensive Nanofiber-Based Sensor*
- **83.** Colton Duprey,\* Yang Lu, Ju-Won Jeon, **Evan K. Wujcik.** Poster presentation at the 2021 AIChE Annual Meeting (November 2021) in Boston, MA USA, Title: *Self-Healable Ultra-Stretchable Polymer Composite Electronic Materials*
- **82.** Colton Duprey,\* Leigh Terry, Mark Elliott, **Evan K. Wujcik.** Poster presentation at the 2021 ACS Spring Meeting (April 2021) ONLINE, Title: *Detection of Disinfection By-products and Oil Spill*

Pollutants in Water utilizing a Two-fold Preconcentration Technique and Colorimetric Reactions for a Portable, Inexpensive Nanofiber-based Sensor

- **81.** Yang Lu, Colton Duprey, Ruigang Wang, **Evan K. Wujcik.\*** Oral presentation at the 2021 ACS Spring Meeting (April 2021) ONLINE, Title: *Catalytic Effects of Iron on the Carbonization Process of Electrospun Carbon/Iron Nanofibers and their Utilization as Nanoadsorbents for Enhanced Cr(VI) Removal from Water*
- **80.** Yang Lu, Colton Duprey, Ju-Won Jeon, **Evan K. Wujcik.\*** Oral presentation at the 2021 ACS Spring Meeting (April 2021) ONLINE, Title: *Ultra-stretchable PANI-based Conductive Polymer Complex exhibiting Repeatable Autonomous Self-healing Ability and Omnidirectional Strain Sensing*
- **79.** Gina Lusvardi,<sup>+,\*</sup> Emily Linn,<sup>+,\*</sup> Lauren McLoughlin,<sup>+,\*</sup> Bailey Bridgers,<sup>+,\*</sup> **Evan K. Wujcik.** Poster presentation at the University of Alabama 2021 Undergraduate Research and Creative Activity (URCA) Conference (March 2021), Tuscaloosa, AL, USA
- **78. Evan K. Wujcik,\*** Yang Lu, Ju-Won Jeon. Oral presentation at the 2021 APS March Meeting (March 2021) ONLINE, Title: *Self-Healable Ultra-Stretchable Organic Electronics for Wearable Strain Sensors*
- **77.** Yang Lu, Zhongqi Liu, Seungwoon "Paul" You,<sup>+</sup> Lauren McLoughlin,<sup>+</sup> Bailey Bridgers,<sup>+</sup> Seth Hayes,<sup>+</sup> Xifan Wang, Ruigang Wang, **Evan K. Wujcik**.\* Oral presentation at the 2020 AIChE Annual Meeting (November 2020) ONLINE, Title: *Catalytic Effects of Iron on the Carbonization Process of Electrospun Carbon/Iron Nanofibers and Their Utilization as Nanoadsorbents for Enhanced Cr(VI) Removal from Water*
- Yang Lu, Zhongqi Liu, Haoming Yan, Qing Peng, Ruigang Wang, Mark E. Barkey, Ju-Won Jeon, Evan K. Wujcik.\* Poster presentation at the 2020 AIChE Annual Meeting (November 2020) ONLINE, Title: Ultra-stretchable Conductive Polymer Complex As a Strain Sensor with a Repeatable Autonomous Self-Healing Ability
- **75.** Yang Lu, Zhongqi Liu, Seungwoon "Paul" You,<sup>+</sup> Lauren McLoughlin,<sup>+</sup> Bailey Bridgers,<sup>+</sup> Seth Hayes,<sup>+</sup> Xifan Wang, Ruigang Wang, **Evan K. Wujcik**.\* Poster presentation at the 2020 AIChE Annual Meeting (November 2020) ONLINE, Title: *Electrospun Carbon/Iron Composite Nanofibers and their Utilization as Nanoadsorbents for Enhanced Cr(VI) Removal from Water*
- **74. Evan K. Wujcik**.\* Remote oral presentation at Biosensors and Bioelectronics (July 2020) in Paris, France, Title: *Self-Healable Ultra-Stretchable Wearable Sensor Materials* [delivered virtually due to COVID-19 pandemic]
- **73. Evan K. Wujcik**.\* Remote oral presentation at the 62<sup>nd</sup> Electronic Materials Conference (June 2020) in Columbus, OH, USA (The Ohio State University), Title: *Ultra-Stretchable Conductive Polymer Complex with Excellent Linearity and Repeatable Autonomous Self-Healing Ability* [delivered virtually due to COVID-19 pandemic]
- **72.** Jesse Horne,\* **Evan K. Wujcik**. Oral presentation at the 2019 Alabama Water Institute Symposium (November 2019) in Tuscaloosa, AL, USA, Title: *Hexavalent Chromium Removal from Treated Water via Electrospun Composite Nanofibers*
- **71.** Jesse Horne,\* **Evan K. Wujcik**. Poster presentation at the 2019 Alabama Water Institute Symposium (November 2019) in Tuscaloosa, AL, USA, Title: *Hexavalent Chromium Removal from Treated Water via Electrospun Composite Nanofibers*
- **70.** Daniela Sanchez,<sup>+,\*NSF REU</sup> Yang Lu, Jesse Horne, **Evan K. Wujcik**. Poster presentation at the 2019 AIChE Annual Student Conference (November 2019) in Orlando, FL, USA, Title: *Elastomer Nanofibers Towards Wearable Electronics*

- **69.** [1<sup>st</sup> Place Winner of the Environmental Division Poster Session] Clint Cook,<sup>+,\*, NSF REU</sup> Jesse Horne, Evan K. Wujcik. Poster presentation at the 2019 AIChE Annual Conference (November 2019) in Orlando, FL, USA, Title: Electrospun Polymer-Based Visible Colorimetric Sensor for Selective and Sensitive On-Site Determination of Polycyclic Aromatics Hydrocarbons in Aquatic Ecosystems
- **68.** Yang Lu, **Evan K. Wujcik**.\* Oral presentation at the 2019 AIChE Annual Meeting (November 2019) in Orlando, FL, USA, Title: *Ultra-Stretchable Conductive Polymer Complex with Excellent Linearity and Repeatable Autonomous Self-Healing Ability*
- **67.** Yang Lu, Jesse Horne,\* Lauren McLoughlin,<sup>+</sup> Rachel Ploeger,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**. Oral presentation at the 2019 AIChE Annual Meeting (November 2019) in Orlando, FL, USA, Title: *Ultra-Stretchable P(AAMPSA)/PANI/PA Conductive Polymer Complex with Excellent Linearity and Repeatable Autonomous Self-Healing Ability*
- **66.** Yang Lu, Jesse Horne,\* Lauren McLoughlin,<sup>+</sup> Rachel Ploeger,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**. Poster presentation at the 2019 AIChE Annual Meeting (November 2019) in Orlando, FL, USA, Title: *Ultra-Stretchable P(AAMPSA)/PANI/PA Conductive Polymer Complex with Excellent Linearity and Repeatable Autonomous Self-Healing Ability*
- **65.** Yang Lu, Jesse Horne,\* Joshua Perch,<sup>+</sup> Zhanhu Guo, **Evan K. Wujcik**. Poster presentation at the 2019 AIChE Annual Meeting (November 2019) in Orlando, FL, USA, Title: *Hexavalent Chromium Removal from Water Via Electrospun Composite Nanofibers*
- 64. Yang Lu, Jesse Horne,\* Joshua Perch,<sup>+</sup> Zhanhu Guo, Evan K. Wujcik. Oral presentation at the 2019 AIChE Annual Meeting (November 2019) in Orlando, FL, USA, Title: Hexavalent Chromium Removal from Water Via Composite Nanofibers
- **63.** Yang Lu, Jesse Horne, Lauren McLoughlin,<sup>+</sup> Rachel Ploeger,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**.\* Poster presentation at the 2019 Southeastern Regional Meeting of ACS (October 2019) in Savannah, GA, USA, Title: *Ultra-Stretchable Conductive Polymer Complex with Repeatable Autonomous Self-Healing Ability*
- **62.** Yang Lu, Jesse Horne, Lauren McLoughlin,<sup>+</sup> Rachel Ploeger,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**.\* Oral presentation at the 2019 Southeastern Regional Meeting of ACS (October 2019) in Savannah, GA, USA, Title: *Ultra-Stretchable Conductive Polymer Complex with Repeatable Autonomous Self-Healing Ability*
- **61.** Yang Lu, Jesse Horne, Lauren McLoughlin,<sup>+</sup> Rachel Ploeger,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**.\* Oral presentation at the 2019 Southeastern Regional Meeting of ACS (October 2019) in Savannah, GA, USA, Title: *Polymer Fiber-based Visible Colorimetric Sensor for Selective and Sensitive On-Site Determination of Polycyclic Aromatics Hydrocarbons in Aquatic Ecosystems*
- **60.** Yang Lu, Jesse Horne, Lauren McLoughlin,<sup>+</sup> Rachel Ploeger,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**.\* Oral presentation at the 236th ECS Meeting (October 2019) in Atlanta, GA, USA, Title: *Ultra-Stretchable Conductive Polymer Complex As a Wearable Strain Sensor with Excellent Linearity and Repeatable Autonomous Self-Healing Ability*
- **59.** Yang Lu, Ju-Won Jeon, **Evan K. Wujcik**.\* Oral presentation at the TechConnect World Innovation Conference (June 2019) in Boston, MA, USA, Title: *Homogeneous Ultra-Stretchable Electronic Polymer Strain Sensor with Excellent Linearity and Unique Repeatable, Autonomous Self-Healing Ability*
- **58.** Yang Lu, Ju-Won Jeon, **Evan K. Wujcik**.\* Poster presentation at the TechConnect World Innovation Conference (June 2019) in Boston, MA, USA, Title: *Homogeneous Ultra-Stretchable Electronic Polymer Strain Sensor with Excellent Linearity and Unique Repeatable, Autonomous Self-Healing Ability*

- **57.** Yang Lu, Ju-Won Jeon, **Evan K. Wujcik**.\* Oral presentation at the 2019 IEEE Southeast Conference (April 2019) in Huntsville, AL, USA, Title: *Piezoelectric Ultra-Stretchable Strain Sensor with Excellent Linearity and Unique Self-Healing Ability*
- **55.** Lauren McLoughlin,<sup>+,\*</sup> Rachel Ploeger,<sup>+,\*</sup> Yang Lu, Ju-Won Jeon, **Evan K. Wujcik**. Poster presentation at the 2019 Undergraduate Research & Creative Activity Conference (March 2019) in Tuscaloosa, AL, USA, Title: *Ultra-Stretchable Conductive Polymer Complex as Strain Sensor with Excellent Linearity and Repeatable Autonomous Self-Healing Ability*
- **54. Evan K. Wujcik.\*** Oral presentation at the 2018 AIChE Annual Meeting (October-November 2018) in Pittsburgh, PA, USA, Title: *Synthesis of a Homogeneous Ultra-Stretchable Electronic Polymer Strain Sensor with a Unique Autonomous Self-Healing Ability*
- **53.** Yang Lu, Guoqiang You, Xin Wei,<sup>+</sup> Ju-Won Jeon, Zhanhu Guo, **Evan K. Wujcik**.\* Oral presentation at the 2018 AIChE Annual Meeting (October-November 2018) in Pittsburgh, PA, USA, Title: *Nanocomposite Ultra-Portable Sensor for on-Site Copper Detection in Potable Water*
- **52.** Yang Lu, Seungwoon "Paul" You,<sup>+</sup> Steven Diklich,<sup>+</sup> Zhanhu Guo, **Evan K. Wujcik**.\* Oral presentation at the 2018 AIChE Annual Meeting (October-November 2018) in Pittsburgh, PA, USA, Title: *Hexavalent Chromium Removal from Water Via Composite Nanofibers*
- **51.** Yang Lu, Seungwoon "Paul" You,<sup>+</sup> Steven Diklich,<sup>+</sup> Ju-Won Jeon, **Evan K. Wujcik**.\* Oral presentation at the 2018 AIChE Annual Meeting (October-November 2018) in Pittsburgh, PA, USA, Title: *Highly Stretchable, Sensitive, and Self-Healable Wearable Strain Sensor Based on an Elastomeric Hierarchical Conductive Nanofiber Network*
- **50. Evan K. Wujcik**.\* Poster presentation at the Federation of Analytical Chemistry and Spectroscopy Studies SciX 2018 (October 2018) in Atlanta, GA, USA, Title: *Advanced Nanomaterials for Biomonitoring*
- **49. Evan K. Wujcik**.\* Poster presentation at the 2018 28th Anniversary World Congress on Biosensors (June 2018) in Miami, FL, USA, Title: *Advanced Nanomaterials for Bio-monitoring of Sweat*
- **48.** Evan K. Wujcik,\* Yang Lu. Poster presentation at the 2018 IEEE Southeast Conference (April 2018) in St. Petersburg, FL, USA, Title: *Advanced Nanomaterials for Bio-monitoring*
- **47.** Ashley Chonko,<sup>+,\*</sup> Yang Lu, Pravin Shinde, **Evan K. Wujcik**, Shanlin Pan. Poster presentation at the 2018 Undergraduate Research & Creative Activity Conference (March 2018) in Tuscaloosa, AL, USA, Title: Synthesis of Electrospun TiO<sub>2</sub> Nanowires for NanoCOT on a Ni Foam Framework for Catalytic Water Splitting
- **46.** Yang Lu,\* **Evan K. Wujcik**, Arijit Bose. Poster presentation at the 2017 AIChE Annual Meeting (October-November 2017) in Minneapolis, MN, USA, Title: *Bottom-up Synthesis of Nanoelectronic Titania Composites*
- **45. Evan K. Wujcik,\*** Clayton S Jeffryes, Mohammad Shahadat Hussain Sarkar, Md. Alamin Miraz, Vu Phan,<sup>+</sup> Ashiqur Rahman, Yang Lu. Poster presentation at the 2017 AIChE Annual Meeting (October-November 2017) in Minneapolis, MN, USA, Title: *Graphene Oxide/Lipid Composite Material Towards a Multifunctional Drug Delivery Vehicle*
- **44.** Suying Wei,\* Tanusree Sarker, Jaishri Sharma, Yang Lu, Ashwinin Kucknoor, Lauren Washburn, **Evan K. Wujcik.** Oral presentation at the 2017 American Physical Society Meeting (March 2017) in New Orleans, LA, USA, Title: *Biocompatible, Tactic PMMA Blend Fibers: Exploring Stereocomplex Formation*
- **43.** Yang Lu,\* **Evan K. Wujcik**. Poster presentation at the 2017 UA Chemical and Biological Engineering Advisory Board Meeting (April 2017) in Tuscaloosa, AL, USA, Title: *Electrospun Nanocarbon Fibers*

for the Chromium Removal in Water

### Lamar University (9/2013-12/2016)

- 42. Linh Doan,\* Megha Karatela,<sup>+</sup> Vu Phan,<sup>+</sup> Sumit Arora, David L. Cocke, Srinivas Palanki, Evan K.
   Wujcik. Poster presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: Surface Modifications of Superparamagnetic Iron Oxide Nanoparticles with Polylactic Acid-Polyethylene Glycol Diblock Copolymer and Graphene Oxide for a Protein Delivery Vehicle
- **41.** Guoqiang Yu,\* Yang Lu, Ian Lian, Srinivas Palanki, **Evan K. Wujcik**. Oral presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Effects of Selenium Nanoparticles on UVB Radiation-Induced DNA Damage and Apoptosis: Potential for Prevention of Skin Carcinogenesis*
- **40.** Yang Lu,\* Guoqiang Yu, Manisha Patel,<sup>+</sup> Xin Wei,<sup>+</sup> Suying Wei, **Evan K. Wujcik**. Poster presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Water Purification and Desalination Via a Cellulose Acetate/TiO2-Au Nanocomposite Reverse Osmosis Membrane*
- **39.** Guoqiang Yu,\* Yang Lu, Keerthi Sabbineni, Romel Cardenas,<sup>+</sup> Rajat Chauhan, **Evan K. Wujcik**. Oral presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Heavy Metal Detection in Treated Water Via a Fabric Nanocomposite Sensor*
- **38.** Yang Lu,\* Guoqiang Yu, Manisha Patel,<sup>+</sup> Xin Wei,<sup>+</sup> Suying Wei, **Evan K. Wujcik**. Oral presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Cellulose Acetate/TiO<sub>2</sub>-Au Nanocomposite Reverse Osmosis Membrane for Water Purification and Desalination*
- **37.** Yang Lu,\* Chuanxing Zhan, Suying Wei, **Evan K. Wujcik**. Oral presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Sustainable Anticorrosive Self-Healing Smart Coatings for Metal Protection*
- **36.** Yang Lu,\* Guoqiang Yu, Zhanhu Guo, Suying Wei, **Evan K. Wujcik**. Oral presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Electrospun Nanocarbon Fibers for the Chromium Removal in Water*
- **35.** Adarsh Bafana,\* Xingru Yan, Suying Wei, Zhanhu Guo, **Evan K. Wujcik**. Poster presentation at the 2016 AIChE Annual Meeting (November 2016) in San Francisco, CA, USA, Title: *Characterization and Synthesis of Polypropylene/Graphene Nanocomposite Materials*
- **34.** Krishna Kharel,\* Radhika Gangineni, Lauren Ware, Yang Lu, **Evan K. Wujcik**, Suying Wei, Ozge Gunaydin-Sen. Oral presentation at the 2016 ACS Southwest Regional Meeting (November 2016) in Galveston, TX, USA, Title: *Thermal, kinetic, and vibrational property investigation of hydrogen storage composites of ammonia borane with polyacrylamide in bulk and nanofiber forms*
- **33.** Ramanjaneyulu Seemaladinne,\* Sahithya Pati1, Adarsh Bafana, **Evan K. Wujcik**, Ozge Gunaydin-Sen. Oral presentation at the 2016 ACS Southwest Regional Meeting (November 2016) in Galveston, TX, USA, Title: *Phase Transition and Decomposition Studies of Hybrid Hydrogen Storage Systems of Ammonia Borane*
- **32.** Linh Doan,\* Vu Phan,<sup>+</sup> Will Shipp,<sup>+</sup> Manisha Patel,<sup>+</sup> **Evan K. Wujcik**. Poster presentation at the 2016 ACS Southwest Regional Meeting (November 2016) in Galveston, TX, USA, Title: *Surface Modifications of Superparamagnetic Iron Oxide Nanoparticles with Polylactic Acid-Polyethylene Glycol Diblock Copolymer and Graphene Oxide for a Protein Delivery Vehicle*
- **31.** Yang Lu,\* Guoqiang Yu, Manisha Patel,<sup>+</sup> Xin Wei,<sup>+</sup> Suying Wei, **Evan K. Wujcik**. Poster presentation at the 2016 ACS Southwest Regional Meeting (November 2016) in Galveston, TX, USA, Title: *Cellulose Acetate/TiO<sub>2</sub>-Au Nanocomposite Reverse Osmosis Membrane for Water Purification and*

Desalination

- **30.** Adarsh Bafana,\* Xingru Yan, Suying Wei, Zhanhu Guo, **Evan K. Wujcik**. Poster presentation at the 2016 ACS Southwest Regional Meeting (November 2016) in Galveston, TX, USA, Title: *Synthesis of Low Weight Percent Polypropylene/Graphene Nanocomposite Materials*
- 29. [*3<sup>rd</sup> Place Winner of the 2016 Texas Rural Challenge Competition*] Manisha Patel,\*,<sup>+</sup> Evan K. Wujcik. Oral presentation at the 30th annual 2016 National Conference on Undergraduate Research (NCUR) (April 2016) in Asheville, NC, USA, Title: *Portable Device with Alumina Technology for the Filtration of Metals and Bacteria in Drinking Water*
- 28. [1<sup>st</sup> Place Winner of the 2016 Lamar University Office of Undergraduate Research Expo Poster Session] Progga Chirontoni,\*,\* Manisha Patel,\* Evan K. Wujcik. Poster presentation at the Lamar University Office of Undergraduate Research Expo (April 2016) in Beaumont, TX, USA, Title: "HydroPal"-A Nanotechnology Enabled Water Treatment Design
- **27.** Chuanxing Zhan,\* Yang Lu,\* Lauren Ware, Ken Lee, Luyan Wang, **Evan K. Wujcik**, and Suying Wei. Poster presentation at the Environmental Protection Agency (EPA) National Sustainable Design Expo (April 2016) in Washington, D.C., USA, Title: *Sustainable Anticorrosive Self-Healing Smart Coatings for Metal Protection*
- 26. [1<sup>st</sup> Place Winner of the 2016 Lamar University Office of Undergraduate Research Expo Oral Presentations] Manisha Patel,\*<sup>,+</sup> Progga Chirontoni,<sup>+</sup> Evan K. Wujcik. Oral presentation at the Lamar University Office of Undergraduate Research Expo (April 2016) in Beaumont, TX, USA, Title: *Clear Blue: The Portable Device with Alumina Technology for the Filtration of Metals and Bacteria in Drinking Water*
- **25.** Manisha Patel,\*,<sup>+</sup> **Evan K. Wujcik**. Oral presentation at "*The Resolution Project*" Clinton Global Initiative University (April 2016) at the University of California, Berkeley, Title: *Portable Clean Drinking Water for All*
- 24. Guoqiang Yu,\* Yang Lu, Suying Wei, Zhanhu Guo, Evan K. Wujcik. Poster presentation at the 2016 AIChE Spring Meeting and 12<sup>th</sup> Global Congress on Process Safety (April 2016) in Houston, TX, USA, Title: *Heavy Metal Detection in Treated Water via a Fabric Nanocomposite Sensor*
- 23. Yang Lu,\* Guoqiang Yu, Suying Wei, Zhanhu Guo, Evan K. Wujcik. Poster presentation at the 2016 AIChE Spring Meeting and 12<sup>th</sup> Global Congress on Process Safety (April 2016) in Houston, TX, USA, Title: Electrospun Nanocomposite Fibers for the Removal of Heavy Metals in Water
- 22. [4<sup>th</sup> Place Finalist of the 2016 Rice University Nanotechnology Enabled Water Treatment Competition] Manisha Patel,\*,\* Progga Chirontoni,\*,\* Evan K. Wujcik. Oral presentation at the NEWT's First Annual Undergraduate Global Water Technologies Competition (April 2016) hosted by Rice University, Title: HydroPal Portable Clean Water for All
- **21.** William H. Shipp,\*,\* **Evan K. Wujcik**. Oral presentation at the Lamar University's David J. Beck Fellow presentations (November 2015) in Beaumont, TX, USA, Title: *New Materials to Solve the World's Energy Problem*
- 20. [2<sup>nd</sup> Place Winner of the Lamar University "What's Your Big Idea?" Competition] Manisha Patel,\*,\* Evan K. Wujcik. Oral presentation at the Lamar University "What's Your Big Idea?" Competition (October 2015) in Beaumont, TX, USA, Title: Activated Alumina Technology for the Filtration of Arsenic Metals
- **19.** William H. Shipp,\*,\* **Evan K. Wujcik**. Oral presentation at the Tongji Research Symposium (August 2015) at Tongji University in Shanghai, CN, Title: *Iron Oxide/Nanocarbon Supercapacitor Nanocomposites*

- **18.** Yang Lu,\* Suying Wei, Zhanhu Guo, **Evan K. Wujcik**. Oral presentation at the 2015 AIChE Annual Meeting (November 2015) in Salt Lake City, UT, USA, Title: *Electrospun Polyacrylonitrile/Iron(III)* Nitrate Nanocomposite Fibers for the Removal of Chromium in Water
- **17.** Yang Lu,\* Suying Wei, Zhanhu Guo, **Evan K. Wujcik**. Poster presentation at the 2015 AIChE Annual Meeting (November 2015) in Salt Lake City, UT, USA, Title: *Magnetic Polyvinyl Alcohol Nanocomposite Fibers Reinforced with Fe*<sub>3</sub>O<sub>4</sub> *Nanoparticles*
- **16.** Yang Lu,\* Suying Wei, Zhanhu Guo, **Evan K. Wujcik**. Oral presentation at the 2015 AIChE Annual Meeting (November 2015) in Salt Lake City, UT, USA, Title: *Magnetic Polyvinyl Alcohol Nanocomposite Fibers Reinforced with Fe*<sub>3</sub>O<sub>4</sub> *Nanoparticles*
- 15. [Winner of the 2015 Beck Fellowship] William H. Shipp,\*,\* Evan K. Wujcik. Oral presentation at the Lamar University's David J. Beck Fellow interviews (October 2014) in Beaumont, TX, USA, Title: New Materials to Solve the World's Energy Problem
- **14.** Katherine Deaton,\*<sup>,+</sup> José Andino, **Evan K. Wujcik**. Poster presentation at the Lamar University Office of Undergraduate Research Expo (April 2014) in Beaumont, TX, USA, Title: *Electrochemical Nanosensor for the Detection of Lead in Drinking Water*

# The University of Akron (9/2011-8/2013)

- **13. Evan K. Wujcik**,\* Chelsea N. Monty. Oral presentation at the University of Akron Department of Chemical and Biomolecular Engineering Advisory Board Poster Session (April 2013) in Akron, OH, USA, Title: *Diagnostic Sodium Ion Sensor for the Real-Time Screening and Diagnosis of Cystic Fibrosis*
- **12. Evan K. Wujcik**,\* Chelsea N. Monty. Oral presentation at the 2013 PITTCON National Conference & Expo (March 2013) in Philadelphia, PA, USA, Title: *Diagnostic Sodium Ion Sensor for the Real-Time Screening and Diagnosis of Cystic Fibrosis: A Novel Alternative to the Sweat Test*
- **11. Evan K. Wujcik**,\* George G. Chase, Chelsea N. Monty. Oral presentation at the 2013 PITTCON National Conference & Expo (March 2013) in Philadelphia, PA, USA, Title: *Hydrophobic Membrane Preconcentration Technique for the Colorimetric Detection of Halogenated Compounds in Water*
- **10. Evan K. Wujcik**,\* Chelsea N. Monty. Oral presentation at the 2012 AIChE Annual Meeting (November 2012) in Pittsburgh, PA, USA, Title: *Diagnostic Sodium Ion Sensor for the Real-Time Screening and Diagnosis of Cystic Fibrosis*
- **9. Evan K. Wujcik**,\* George G. Chase, Chelsea N. Monty. Oral presentation at the 2012 AIChE Annual Meeting (November 2012) in Pittsburgh, PA, USA, Title: *Membrane Preconcentration Technique for the Colorimetric Detection of Trihalomethanes in Water*
- 8. Evan K. Wujcik.\* Poster presentation at the 2012 AIChE Annual Meeting (November 2012) *Meet the Faculty Candidate Poster Session* in Pittsburgh, PA, USA, Title: *Sensors and Sensor Platforms for Bionanotechnology*
- [3<sup>rd</sup> Place Winner of the Nanoscale Science & Engineering Forum (NSEF) Poster Session] Evan K. Wujcik,\* Chelsea N. Monty. Poster presentation at the 2012 AIChE Annual Meeting (November 2012) in Pittsburgh, PA, USA, Title: Diagnostic Na<sup>+</sup> Sensor for the Real-Time Screening and Diagnosis of Cystic Fibrosis

# The University of Rhode Island (9/2004-8/2011)

- **6. Evan K. Wujcik**,\* Arijit Bose. Poster presentation at the 2009 NASA Rhode Island Space Grant Symposium (January 2010) in Smithfield, RI, USA, Title: *Synthesis of Lead Selenide-Titania Heterostructures for High-Efficiency Low-Cost Solar Cells*
- 5. Evan K. Wujcik,\* Arijit Bose. Poster presentation at the 2009 MRS Fall Meeting (December 2009)

in Boston, MA, USA, Title: *Synthesis of Lead Selenide-Titania Heterostructures for High-Efficiency Low-Cost Solar Cells* 

- **4. Evan K. Wujcik**,\* Arijit Bose. Oral presentation at the 2009 AIChE Annual Meeting (November 2009) in Nashville, TN, USA, Title: *Directed Synthesis of Lead Selenide-Titania Core-Shell Nanowire Heterostructures for High-Efficiency Low-Cost Solar Cells*
- **3. Evan K. Wujcik**,\* Arijit Bose. Poster presentation at the University of Rhode Island Department of Chemical Engineering's Spring Poster Session (April 2009) in Kingston, RI, USA, Title: *Synthesis of Lead Selenide-Titania Heterostructures for High-Efficiency Low-Cost Solar Cells*
- 2. **Evan K. Wujcik**,\* Arijit Bose. Oral presentation, as an undergraduate, at the University of Rhode Island-Brown University Research Symposium (December 2007) in Kingston, RI, USA, Title: *Platinum-loaded Titania as an Advanced Catalytic Nanocomposite Platform*
- 1. Evan K. Wujcik,\* Jayashri Sarkar, Arijit Bose. Poster Presentation, as an undergraduate, at the 2006 AIChE Annual Meeting (November 2006) in San Francisco, CA, USA, Title: *Highly Ordered Nanoporous Titania Synthesis*

### CUIRRENT AND PAST PROFESSIONAL MEMBERSHIPS

#### American Institute of Chemical Engineers

2016-present Senior Member
2013-2016 Member
2008-2013 Graduate Student Member
2005-2008 UG Student Member

### **American Chemical Society**

2013-present Member2008-2013 Graduate Student Member

### American Physical Society

2020-present Member

### Institute of Electrical and Electronic Engineers

2013-2020 Member

# Materials Research Society

2013-present Member2008-2013 Graduate Student Member

# The Electrochemical Society

2013-2019 *Member* 

American Association for the Advancement of Science

2013-2018 Member

### New England Complex Fluids Workgroup

2009-2011 *Member* 2022-present *Member* 

# National Academy of Inventors

2022-present Member

# TEACHIING/MENTORING ACTIVITY

### THE UNIVERSITY OF MAINE (Fall 2022-present):

### **IM COURSES TAUGHT AT UMAINE:**

## <u>Undergraduate</u>

- **Elements of Chemical Engineering I** (CHE 360) covering momentum and heat transport
  - Junior-level core course [4 credits]
  - o Taught: Fall 2023
- **Elements of Chemical Engineering II** (CHE 362) covering mass transport and unit operations
  - Junior-level core course [4 credits]
  - Taught: Spring 2023, Spring 2024

# <u>Undergraduate</u>

# **Conductive and Electroactive Polymers** (CHE 598)

- o Graduate/Senior UG-level Elective course [3 credits]
- Taught: Spring 2024

## **III GUEST LECTURES DELIVERED WHILE AT UMAINE:**

- **3.** *"Nanofibers for Environmental Analyte Detection and Remediation"* lecture delivered in **Environmental Nanotechnology** course at the University of Maine Department of Civil and Environmental Engineering (Instructor: Prof. Onur G. Apul)
- 2. *"Wearable Sensors"* lecture delivered in **Biomaterials and the Cellular Interface** course at the University of Maine Department of Chemical and Biomedical Engineering, Biomedical Engineering Program (Instructor: Prof. David J. Neivandt)
- 1. *'Fiber-based Sensors for Detection of Organics in Complex Media*" lecture delivered in **Applications** of **Chemical Sensors** course at the University of New Hampshire Department of Chemical Engineering (Instructor: Prof. Jeffrey M. Halpern)

# **III CURRENT RESEARCH STUDENTS ADVISED AT UMAINE:**

Doctor of Philosophy (Ph.D.) in Chemical Engineering Students [Dissertation]

- 1. Colton Duprey (Fall 2022-present) *[Started at UA under Wujcik's direction, and moved to UMaine with Wujcik in 09/2022]*
- 2. Arya Ajeev (Fall 2022-present)
- 3. Behrokh Shams (Spring 2023-present)

# 4+1 Master of Science (M.S.) in Biomedical Engineering Students [Thesis]

1. Sara Maslaczynska-Salome (Summer 2023-present)

### **IM COMMITTEE MEMBERSHIPS WHILE AT UMAINE:**

### Master of Science (M.S.) Students [Thesis]

- 1. Jacob Holbrook (Biomedical Engineering) [Spring 2023-Summer 2023]
- 2. Evan Leonard (Biomedical Engineering) [Spring 2023-Summer 2024]

### THE UNIVERSITY OF ALABAMA (Spring 2017-Summer 2022):

Prof. Wujcik's overall teaching evaluations—while at The University of Alabama—averaged 4.54 [Response Rate: 85%] out of a possible 5 (cf., Department of Chemical and Biological Engineering (4.11) and COE (4.10) averages).

### **COURSES TAUGHT AT UA:**

### <u>Undergraduate</u>

- Process Dynamics & Control (CHE 493)
  - Senior-level core course [3 credits]
  - Taught: Spring 2017, Fall 2017, Spring 2018, Spring 2019, Fall 2019, Spring 2020 (1 month fully online), Fall 2020 (fully online), Fall 2021 (back to face-to-face), Spring 2022

### Honors forum – Industrial Chemistry (CHE 325)

- Honors seminar [1 credit]
- Taught: Spring 2018
- **Honors forum Polymers for Biomedical Applications** (CHE 325)
  - Honors seminar [1 credit]
  - Taught: Fall 2019
- **Honors forum Chemical Engineering in Advanced Manufacturing** (CHE 325)
  - Honors seminar [1 credit]
  - Taught: Fall 2020

### <u>Graduate</u>

### **Nanosensors: Theory and Applications** (CHE 492/592)

- Cross-listed course [3 credit]
- Taught: Fall 2018
- Wearable/Electronic Polymers (CHE 492/592) [developed/delivered as part of my NSF CAREER Award]
  - Cross-listed course [3 credits]
  - Taught: Spring 2021

### MEAN LAB ALUMNI/ALUMNAE WHILE AT UA:

### Visiting Post-Doctoral Researchers

1. Dr. Yang Lu (Fall 2019-Spring 2020)

# Doctor of Philosophy (Ph.D.) in Chemical and Biological Engineering Students [Dissertation]

1. Colton Duprey (Fall 2020-Summer 2022) [Started at UA under Wujcik's direction, and moved

## to UMaine with Wujcik in 09/2022]

- Hadi Rouhi (Summer 2021-Summer 2022) [Started at UA under Wujcik's direction, but did not complete dissertation under Wujcik]
- Nicole (Niki) Penners (Summer 2021-Spring 2022) [Did not complete dissertation under Wujcik]
- 4. Jesse Horne (Summer 2019-Fall 2019) [Did not complete dissertation under Wujcik]
- Yang Lu (Spring 2017-Summer 2019) [Started at LU under Wujcik's direction, and moved to UA with Wujcik in 01/2017] – Dissertation Title: Investigation of Polymers Towards Advanced Functional Materials

# Visiting PhD Researchers

- **1.** Negar Hosseinzadeh (Ph.D. Student, Amirkabir University of Technology [Tehran, Iran], Department of Textile Engineering) (Summer 2022)
- **2.** Elham (Eli) Ghalavand (M.S. in Polymer Engineering, Amirkabir University of Technology [Tehran, Iran]) (Spring 2022-Summer 2022)
- **3.** Saeideh Alipoori (Ph.D. Student, Hacettepe University [Ankara, Turkey], Department of Chemistry) (Fall 2020-Summer 2022) [Virtual, due to Covid-19 restrictions]
- **4.** DaJung Hong (Ph.D. Student, Kookmin University [Seoul, Republic of Korea], Department of Applied Chemistry) (Spring 2019)

## Master of Science (M.S.) Students [Non-Thesis, but conducting research]

**1.** Lauren McLoughlin (Chemical and Biological Engineering) [Summer 2021-Spring 2022]

# Undergraduate (B.S.) Students

- **1.** Paul You (Chemical and Biological Engineering) [Spring 2017-Fall 2018]
- 2. Steven Diklich (Chemical and Biological Engineering) [Spring 2017-Fall 2018]
- **3.** Amy Stephens (Chemical and Biological Engineering) [Spring 2017]
- **4.** Natalie Rosato (Chemical and Biological Engineering) [Summer 2018]
- 5. Daniela Sanchez (Chemical Engineering University of Kentucky) [Summer 2019 NSF REU]
- **6.** Clint Cooke (Chemical Engineering University of Alabama-Huntsville) [Summer 2019 NSF REU]
- 7. Josh Perch [Emerging Scholar] (Chemical and Biological Engineering) [Fall 2018-Spring 2019]
- 8. Rachel Ploeger (Physics) [Spring 2019]
- 9. Alina Faunce (Biology [Pre-Med]) [Summer 2019]
- **10.** Olivia Diaz (Environmental Engineering) [Fall 2019]
- **11.** Brian Washington (Chemical and Biological Engineering) [Summer 2019-Spring 2020]
- 12. Seth Hayes (Mathematics) [Summer 2019- Spring 2020]
- **13.** Andrew Grewette (Chemical and Biological Engineering, Chemistry) [Spring 2020]
- 14. Savanah Booker (Biology) [Fall 2019-Fall 2020]
- **15.** Lauren McLoughlin (Chemical and Biological Engineering) [Spring 2019-Spring 2021]
- 16. Bailey Bridgers (Biology [Pre-Med] and Spanish) [Fall 2019-Spring 2021]
- 17. Macy Kate Petriske (Chemistry [Pre-Med]) [Summer 2020-Spring 2021]
- **18.** Katherine Webb (Biomedical/Medical Engineering University of Florida) [Summer 2021 NSF REU]

- **19.** Emily Linn (Chemistry) [Spring 2020-Spring 2022]
- **20.** Hannah Stumpfl (Chemical and Biological Engineering, STEM MBA) [Spring 2020-Spring 2022]
- **21.** Gina Lusvardi (Chemical and Biological Engineering [Pre-Med]) [Summer 2020-Spring 2022]
- **22.** Sofia Luna (Chemical and Biological Engineering, STEM MBA) [Spring 2021-Spring 2022]
- **23.** George Chen (Chemical and Biological Engineering [Pre-Med]) [Summer 2021-Summer 2022]
- 24. Sarah Veres (Metallurgical and Materials Engineering) [Summer 2021-Spring 2022]

# COMMITTEE MEMBERSHIPS WHILE AT UA:

# Doctor of Philosophy (Ph.D.) Students

- 1. Hannah Lacy [Materials Science at UA-Birmingham (Stanishevsky, Physics)] Dissertation Title: *Composite Natural-Synthetic Nanofibers* (Fall 2021-Summer 2022)
- **2.** Sandhiya Thiagarajan [Chemical and Biological Engineering (Koh)] Dissertation Title: *Magnetorheological Fluids* (Fall 2021-Summer 2022)
- **3.** Flor I. Lozada [Chemistry and Biochemistry (Bonizzoni] Dissertation Title: *Redox Reactions for the Sensing and Discrimination of Antioxidants* (Fall 2020-Summer 2022)
- 4. Corey Patton [Chemical and Biological Engineering (Bara)] Dissertation Title: TBD (ongoing)
- **5.** Qi Li [Chemical and Biological Engineering (Zhao)] Dissertation Title: *Tetrodotoxin Conjugations Induce Prolonged Duration Local Anesthesia* (Fall 2020-Summer 2022)
- **6.** Me'Lanae Garrett [Physics and Astronomy-Materials Science (Hauser)] Dissertation: *Aquatic Strain Sensors for Energy Generation* (Spring 2020-Summer 2022)
- **7.** Kathryn (Katie) O'Harra [Chemical and Biological Engineering (Bara)] Dissertation Title: *Complex Imidazole and Bi(Imidazole) Monomers as Precursors to Ionic Linear, Ladder, and Star Polymers* (Spring 2021)
- **8.** Grayson Denis [Chemical and Biological Engineering (Bara)] Dissertation Title: *Investigation into novel Poly(amide-imides) and their Ionic Liquid Counterparts as Nanofiltration and Forward/Reverse Osmosis Membranes* (Fall 2020)
- **9.** Asghar Abedini [Chemical and Biological Engineering (Turner)] Dissertation Title: *Molecular Dynamics and Monte Carlo Simulations of Thermodynamics of Ionic Liquids* (Summer 2018)

# LAMAR UNIVERSITY (Fall 2013-Fall 2016):

Prof. Wujcik's overall teaching evaluations—while at Lamar University—averaged 4.4 out of a possible 5 (cf., Department of Chemical Engineering (4.3) and COE (4.3) averages).

# **© COURSES TAUGHT AT LU:**

# <u>Undergraduate</u>

- Momentum Transport (CHEN3311)
  - Junior-level course
  - o Taught: Fall 2013, Summer I 2014, Fall 2014, Summer I 2015, Fall 2015
- Undergraduate Professional Seminar (CHEN2140)
  - Sophomore-level course

• Taught: Fall 2014 (1 section), Spring 2015 (3 sections), Fall 2015 (1 section), Spring 2016 (3 sections)

# Graduate (Ph.D./D.E./M.E.S./M.E./Senior UG)

- Nanosensors (CHEN6333)
  - Prof. Wujcik developed and instructed this course at Lamar University
  - Taught: Spring 2014, Summer I 2015, Summer I 2016
- Introduction to NanoManufacturing (CHEN6301-A4A)
  - Prof. Wujcik co-developed and co-instructed this course along with Prof. Zhanhu Guo at Lamar University
  - Taught: Fall 2014
- NanoEnergy (CHEN6301-03)
  - Prof. Wujcik developed and instructed this course at Lamar University
  - Taught: Fall 2015
- Engineering Ethics and Communication (ENGR5331)
  - Prof. Wujcik developed and instructed this core COE course
  - Taught: Fall 2016
- Graduate Professional Seminar (CHEN6110)
  - Taught: Fall 2015

# MEAN LABORATORY ALUMNI/ALUMNAE WHILE AT LU:

Doctor of Philosophy (Ph.D.) in Chemical Engineering Students [Dissertation]

- 6. Yang Lu (Fall 2014-Fall 2016) *[Started at LU under Wujcik's direction, and moved to UA with Wujcik in 01/2017]*
- 7. Guoqiang Yu (Fall 2015-Fall 2016) [Did not complete dissertation under Wujcik]
- 8. Adarsh Bafana (Summer 2016-Fall 2016) [Did not complete dissertation under Wujcik]
- *9.* Linh Doan (Summer 2016-Fall 2016) *[Did not complete dissertation under Wujcik]*

Master of Engineering Science (M.E.S.) in Chemical Engineering Students [Thesis]

- **1.** MD Alamin Miraz Thesis Title: *Analysis of the interactions among graphene, proteins, and liposomes* (Spring 2017)
- **2.** Mohammad Shahadat Hussain Sarker Thesis Title: *The study and synthesis of graphene oxide coated liposomes* (Spring 2017)
- **3.** Nikita Bhalerao Thesis Title: *Polypyrrole nanocomposites reinforced with multi-walled carbon nanotubes* (Fall 2016)
- **4.** Asad Vora Thesis Title: *Investigation of electrospun poly vinyl alcohol fibers towards the development of manufacturable wound dressings* (Fall 2016)
- **5.** Rajat Chauhan Thesis Title: *Nanocomposite material for the detection of copper ions in water samples* (Summer 2016)
- **6.** Akshay Jagtap Thesis Title: *Colorimetric sensing of aromatic compounds by an electrospun silica fiber preconcentration technique* (Summer 2016)
- **7.** Jayur Indravadan Mistry Thesis Title: *Templated synthesis of nanoporous titania/nanocarbon composites* (Summer 2016)

- **8.** Adarsh Pradip Bafana Thesis Title: *Polypropylene nanocomposites reinforced with graphene nanoplatelets* (Spring 2016)
- **9.** Keerthi Sabbineni Thesis Title: *Investigation of polycaprolactum nanocomposites reinforced with nanocarbon* (Fall 2015)
- **10.** Sandeep Singh Tomar (Co-advised with Assoc. Prof. of Chemical Engineering Rafael Tadmor) Thesis Title: *Contact angle hysteresis for pendant drops* (Summer 2015)
- **11.** Md. Shariful Haque (Co-advised with Assoc. Prof. of Chemical Engineering Zhanhu Guo) Thesis Title: *Polypropylene nanocomposites reinforced with graphene* (Spring 2015)
- **12.** Abhishant Guleria (Co-advised with Assoc. Prof. of Chemical Engineering Zhanhu Guo) Thesis Title: *Polymer nanocomposites for wastewater treatment* (Fall 2014)

# Master of Engineering (M.E.) Students [Non-Thesis, but conducting research]

1. Kanchha Ram Khyaju (Electrical Engineering) (Fall 2015)

# Undergraduate (B.S.) Students

- 1. William H. Shipp, IV [David J. Beck Fellow] (Chemical Engineering)
- 2. Manisha Patel [Office of Undergraduate Research Scholar] (Chemical Engineering)
- **3.** Katherine Deaton [Mirabeau Presidential Scholar; Office of Undergraduate Research Scholar] (Chemical Engineering)
- 4. Romel Cardenas (Chemical Engineering)
- 5. Xin Wei (Chemical Engineering)
- 6. Megha Karatel (Chemical Engineering)
- 7. Tran Nguyen (Chemical Engineering)
- 8. Vu Phan (Chemical Engineering)
- **9.** Jesus Mckinnon (Chemical Engineering)
- **10.** Neha Sutrave (B.S., Chemical Engineering)

# **© COMMITEE MEMBERSHIPS AT LU:**

# Doctor of Philosophy (Ph.D.) Students

**1.** Mohammad Erfan Haque Raihan – Dissertation Title: *Comprehensive paradigm for converting waste carbon dioxide to value added chemicals* (Fall 2016)

# Doctor of Engineering (D.E.) Students

- **1.** Hartmann E. N'guessan Field Study Title: *Size and time dependence of drop retention force under various normal forces* (Fall 2014)
- **2.** Narendranath Yerra Field Study Title: *Magnetic carbon nanostructures: microwave energy assisted pyrolysis vs conventional pyrolysis* (Fall 2014)

# Master of Engineering Science (M.E.S.) Students

**1.** Anudeep Kare – Thesis Title: *Metal cation uptake and reduction kinetics in microalgal cell culture* (Fall 2016)

- **2.** Frank D. Nato Lopez Thesis Title: *Kinetic evaluation of lipid oils conversion to biofuels using layered double hydroxides doped with triazabicyclodecene catalyst* (Fall 2016)
- 3. Anudeep Sarkar Thesis Title: Bioprocess engineering of nanobiomaterials (Fall 2016)
- 4. Meet Shah Thesis Title: *Relation of the apparent work of adhesion to vibrations* (Summer 2015)
- **5.** Vamsi Krishna Somasi Thesis Title: *Comparison of spontaneous spreading and retraction of oil drops in zero relative humidity and normal* (Summer 2015)
- **6.** Keyvan Mollaeian Thesis Title: *Layered double hydroxide catalyst for the conversion of crude vegetable oil to a sustainable biofuel* (Spring 2015)
- 7. Atif Ali Thesis Title: Identification of H<sub>2</sub>S scavengers for crude oil sweetening (Spring 2015)
- **8.** Snehal Jadhav Thesis Title: *Interaction between solid surface and surfactant in zero humidity* (Fall 2014)
- **9.** Jiang Guo Thesis Title: *Reinforced magnetic epoxy nanocomposites with conductive polypyrrole nanocoating on nanomagnetite as a coupling agent* (Fall 2014)
- **10.** Yiran Wang Thesis Title: *Carboxyl multi-walled carbon nanotubes stabilized palladium nanocatalysts with improved methanol oxidation reaction* (Fall 2014)
- **11.** Ching-Lung Ni Thesis title: *Dynamic simulation and optimization for the operation of an ethylene oxide plant* (Summer 2014)
- **12.** Hayat Raza Thesis Title: *Aspen simulation of hydrothermal liquefaction process for the conversion of algae to renewable fuels and chemicals* (Spring 2014)
- **13.** Babak Rafie Nia Thesis Title: *Gas separator mist eliminator wires-liquid adhesion using centrifugal adhesion balance* (Fall 2013)

# <u>SERVICE ACTIVITY</u>

### PROFESSIONAL SERVICE

### THE UNIVERSITY OF MAINE (Fall 2022-present):

- 2018-present Executive Editorial Board Member, *ES Energy & Environment* (ES Publisher)
- 2018-present Editorial Board Member, ES Materials & Manufacturing (ES Publisher)
- 2017-present Founding Associate Editor, *Advanced Composites and Hybrid Materials* (Springer-Nature)
- 2023-2024 Special Issue Guest Editor, *Advanced Energy and Sustainability Research* (Wiley) entitled "Self-healing Materials"
- 2023 Session Chair, AIChE Annual Meeting MESD (08A): Polymers Poster Session
- 2023 US Department of Energy (DoE) Office of Basic Energy Sciences (BES) Program Reviewer
- 2022-2023 Social Media Manager of MESD [08], AIChE
- 2022 Session Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: Sensors and Monitoring for Health
- 2022 Session Chair, AIChE Annual Meeting MESD (08A): *Rising Stars in Industry (Invited Talks)*
- 2022 US National Science Foundation (NSF) Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Program Reviewer
- 2021-2022 Director of MESD [08], AIChE

# THE UNIVERSITY OF ALABAMA (Spring 2017-Summer 2022):

- 2022 US National Science Foundation (NSF) Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Program Reviewer
- 2022 UK Royal Society of Chemistry Research Fund Reviewer
- 2022 Oak Ridge Associated Universities (ORAU), Nazarbayev University Research Council Reviewer
- 2021 Student Poster Presentation Judge, AIChE Annual Meeting MESD Polymers Area [08A] & Composites Area [08F]
- 2021 US National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) Reviewer
- 2021 Oak Ridge Associated Universities (ORAU), Nazarbayev University Research Council Reviewer
- 2021 Session Chair, AIChE Annual Meeting MESD (08F): *Fibers and Coatings: 1D and 2D Composites*
- 2021 Session Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: *Point-of-Need* Sensor Applications
- 2021 IEEE SOUTHEASTCON Conference Proceedings Reviewer
- 2020 ACS Books Proposal Reviewer
- 2020 Oak Ridge Associated Universities (ORAU), Nazarbayev University Research Council Reviewer

	SERVICE ACTIVITY - 2	
2020	Session Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: <i>Wearable and Environmental Sensors</i>	
2020	Session Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: <i>Applications in Bio-Sensors</i>	
2020	Session Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: <i>Applications in Chemical Sensors</i>	
2020	Session Chair, AIChE Annual Meeting MESD (08F): Smart Composite Materials	
2019	Session Co-Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: Sensor Development Platforms	
2019	Elsevier Book: <u>Self-Healing Polymer Based Materials</u> reviewer	
2019	Israel Science Foundation (ISF), Personal Research Grants Program Reviewer	
2019-2020	Special Issue Guest Editor, <i>Nanomaterials "</i> Nanofibers and their Applications in Energy, Biomedical Engineering, Environmental Engineering, and Sensing"	
2019-2020	Director of Membership of NSEF, AIChE	
2019	3 <sup>rd</sup> International Conference on Biological Information and Biomedical Engineering Proceedings Reviewer	
2018	Session Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: <i>Micro and Nanofabricated Sensors</i>	
2018	Session Chair, AIChE Annual Meeting NSEF: Graphene and Carbon Nanotubes: Characterization, Functionalization, and Dispersion	
2018	Session Chair, AIChE Annual Meeting NSEF: <i>Self and Directed Assembly at the Nanoscale</i>	
2018	Session Chair, AIChE Annual Meeting NSEF: 2D Nanocomposites: New Composites with 2-Dimentional Nanomaterials	
2018	AIChE Education Division (EduDiv [Division 4]) Future Faculty Junior Mentor	
2018	IEEE SOUTHEASTCON Conference Proceedings Reviewer	
2018	External Dissertation Committee Member, Addis Ababa Science & Technology	
2018-2019	Past Chair of MESD Area 08F Composites, AIChE	
2017	Session Co-Chair, AIChE Annual Meeting Topical Conference (T09)-Sensors: Sensor	
2017	Development and Applications	
2017	Session Co-Chair, AIChE Annual Meeting Education Division: <i>Digital Natives and Digital Tools: Teaching to Millennials with Technology</i>	
2017	Session Chair, AIChE Annual Meeting NSEF: Nanofabrication and Nanoscale Processing	
2017	Session Chair, AIChE Annual Meeting MESD (08F): 2D Nanocomposites: New Composites with 2-Dimensional Nanomaterials	
2017	Session Chair, AIChE Annual Meeting MESD (08F): <i>Composites for Environmental Applications</i>	
2017-2018	Chair of MESD Area 08F Composites, AIChE	
2016-2022	Scientific/Business Advisor, Nanobio Healthcare, L.L.C. (Mobile, AL, USA)	
2016-2017	Vice Chair of MESD Area 08F Composites, AIChE	
LAMAR UNIVERSITY (Fall 2013-Fall 2016):		
2016	US National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) Reviewer	

Deutsche Forschungsgemeinschaft (DFG), Materials Science & Engineering Program 2016

	Reviewer
2016	External Dissertation Committee Member, Gujarat Technological University
2016	AIChE Education Division (EduDiv [Division 4]) Future Faculty Junior Mentor
2016	Global Conference on Polymer and Composite Materials Proceedings Reviewer
2016	National Conferences on Undergraduate Research Proceedings Reviewer
2016	5th International Conference on Materials Science and Engineering Proceedings Reviewer
2016	Session Co-Chair, AIChE Annual Meeting MESD: <i>Processing and Technology of Composites</i>
2016	Session Co-Chair, AIChE Annual Meeting FP&BE: Biobased Materials
2016	Student Oral Presentation Judge, AIChE Annual Meeting FP&BE
2016-2017	Special Issue Guest Editor, <i>Journal of Nanotechnology</i> "Carbon -Based Nanomaterials as Novel Nanosensors"
2015	Student Poster Presentation Judge, AIChE Annual Meeting MESD - Polymers Area [08A] & Composites Area [08F]
2015-2016	Founding Co-Director. Lamar Biotech & Bioscience Group (LBBG)
2015-2016	Programming Director of Bio-Engineering Division (15c), AIChE
2014-2017	Exaugural Newsletter Editor, Education Division, AIChE
2014	Student Project Presentation Judge, International Sustainable World Energy Engineering Environment Project (I-SWEEEP) Olympiad

Wujcik has contributed frequent critical referee services of submitted articles to the following publications:

ACS Applied Materials & Interfaces; ACS Applied Electronic Materials; ACS Applied Polymer Materials; ACS Omega; Advanced Composites and Hybrid Materials; Advanced Functional Materials; Advanced Materials; Advanced Materials Interfaces; Advanced Materials Technologies; Aerospace; American Chemical Science Journal; Applied Sciences; Bioconjugate Chemistry; Bioengineering; Biomedicines; Biosensors; British Journal of Applied Science & Technology; Carbohydrate Polymers; Carbon; Chemical Engineering Journal; Chemistry Central Journal; ChemNanoMat; Chemosphere; Colloid and Polymer Science; Colloids and Surfaces B: Biointerfaces; Composite Interfaces; Composites Science and Technology; Engineered Science; ES Materials and Manufacturing; ES Energy and Environmental; European Journal of Pharmaceutics and Biopharmaceutics; Engineered Science; eXPRESS Polymer Letters; Frontiers in Chemistry; Heliyon; IEEE Access; IEEE Sensors Letters; IEEE Spectrum; Industrial & Engineering Chemistry Research; International Journal of Biological Macromolecules; International Journal of Nanomedicine; International Research Journal of Pure and Applied Chemistry; Ionics; Journal of Advanced Research; Journal of Applied Polymer Science; Journal of Composite Materials; Journal of Environmental Science and Health, C: Environmental Carcinogenesis and Ecotoxicology Reviews; Journal of Hazardous Materials; Journal of Inorganic and Organometallic Polymers and Materials; Journal of Materials Chemistry C: Materials with Applications in Optical, Magnetic & Electronic Devices; Journal of Nanomaterials; Journal of Nanostructure in Chemistry; Journal of Photochemistry & Photobiology, A:

SERVICE ACTIVITY - 4

Chemistry; Journal of Physics and Chemistry of Solids; Journal of Radiation Research and Applied Sciences; Journal of Visualized Experiments; Langmuir; Macromolecular Rapid Communications; Macromolecules; Materials; Materials Advances; Materials Letters; Materials Science & Engineering C: Materials for Biological Applications; Microchimica Acta; Molecules; Nanomaterials; Nano-Structures & Nano-Objects; NanoToday; Polymer; Polymer Degradation and Stability; Polymers; Progress in Organic Coatings; Research: A Science Magazine Partner Journal; RSC Advances; Science Advances; Science Bulletin; Scientific Reports; Sensors; Soft Matter

# UNIVERSITY/COLLEGE/DEPARTMENTAL SERVICE

# THE UNIVERSITY OF MAINE (Fall 2022-present):

2023-present	Department Graduate Committee	
2023-present	Member, MCECIS/GEM Operations, Policy, and Safety Project Implementation Team	
2023-present	CBE Department Website Webmaster	
2023	Department Search Committee - CHE-TRC Technical Support Manager	
2023-2027	Class of '27 Academic Advisor	
THE UNIVERSITY OF ALABAMA (Spring 2017-present):		
2021-2022	Chair, Department Public Relations and Web Committee	
2021-2022	Inaugural Department Diversity Advocate	
2020-2022	Campus Advisor, Tau Beta Pi (ТВП) Alabama Beta (B) Chapter	
2019-2022	Department Facilities and Computational Resources Committee	
2019-2021	Department Public Relations and Web Committee	
2019-2020	Department Search Committee	
2018-2019	Department Search Committee	
2017-2019	Department Graduate Committee	
2017-2018	Department Search Committee	
LAMAR UNIVERS	<u>SITY (Fall 2013-Fall 2016):</u>	
2016	Speaker, Tau Beta Pi (TBI) District 10 Regional Meeting at the University of Texas,	
	Austin	
2016	Lamar University Quality Enhancement Plan (QEP) First Year Experience Advisory Council	
2016	PI, ChemE 101 High School Summer Program [externally funded]	
2015	Primary Speaker, Lamar University Cardinal Conversation (televised [on local stations] presentation entitled: <i>Nanotechnology-Ethical &amp; Social Implementations</i> )	
2015-2016	Campus Advisor, Tau Beta Pi (ТВП) Texas Zeta (Z) Chapter	
2015-2016	Lamar University Quality Enhancement Plan (QEP) Outreach Committee	
2015	Co-PI, Lamar Introduction To Engineering (LITE) Middle School Summer Program [externally funded]	
2015	Faculty Representative, Ignite Conference - Fueling Tomorrows Entrepreneurs	
2015	Speaker, Ethics in Engineering Course [presented to local industry]	
2014-2015	Department Search Committee	
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2014 ChE Department Advisor, Tau Beta Pi (ΤΒΠ) Texas Zeta (Z) Chapter (Lamar University)
 2014-2016 Campus Advisor, Order of the Engineer Lamar University Chapter
 2014 Co-PI, Lamar Introduction To Engineering (LITE) Middle School Summer Program [externally funded]