Andrew J. Helmin

LinkedIn: www.linkedin.com/in/andrew-helmin

Education

Full Stack Developer Certificate
University of Minnesota, College of Continuing and Professional Studies
March 2024

Skills: GitHub, JavaScript, HTML, CSS, JQuery, Bootstrap, Tailwind, Node.js, Express, React, RESTful API, MySQL, MongoDB, Git, GitHub, GitLab, Slack

Bachelor of Arts in Chemistry
University of Minnesota, Morris, Morris, MN
May 2018

Honors: Dean's List, CRC Award for Exemplary Performance for First Year Chemistry Students

Skills: Microsoft Word, Microsoft Excel, Microsoft PowerPoint, ^{1}H NMR, ^{13}C NMR, GC-MS, GPC-SEC, TGA, DSC, FTIR, XRD, UV-vis spectroscopy, fluorometry, SDS-PAGE, HPLC, Rheology, DMA, Spectrophotometry, Tensile testing

Experience

Full Stack Developer
University of Minnesota, Full Stack Developer Bootcamp, Minneapolis, MN
12/2023 – 3/2024

- Developed projects both individually and collaboratively, using technologies such as JavaScript, Node.js, React, and MongoDB
- Worked collaboratively and distributed the workload among team members to maximize productivity and project success
- Applied agile development techniques to manage timelines and ensure progress
- Implemented new technologies, such as Nodemailer and Matter.js
- Demonstrated ability to meet aggressive deadlines by effectively prioritizing tasks and maintaining high levels of productivity
- Maintained project quality and performance standards through rigorous testing, code reviews, and adherence to best practices.

Chemical Technician
Republic Services South Hennepin HHW, Bloomington, MN
10/2019 - 08/2023

- Sorted household hazardous wastes by hazardous category
- Determining unknown waste composition
- Placing waste in appropriate waste grouping
- Following safety procedures and protocols
- Conducting work while practicing good customer service
- Loading trailers and unloading deliveries using forklift

Researcher
Aerotek Scientific, LLC, Contingent worker at 3M, Maplewood, MN
07/2018 - 07/2019

- Preparing test specimens
- Collecting and logging data
- Organizing and reporting data
- Adhesive resin formulation
- Analyze resin formulation components for compatibility
- Color match resin formulations to specifications
- Determine best components to achieve desired formulation properties
- Work collaboratively to accomplish goals
- Perform additional duties as required

Undergraduate Researcher
University of Minnesota, Morris, MN
09/2017 - 12/2017

- Preparation of precursors
- Synthesis and characterization of pre-ligand
- Maintain a clear, concise lab notebook
- Good lab safety practices
- Able to increase yield by applying knowledge from another project

Chemistry Inventory Clerk
University of Minnesota, Morris, MN
07/2017 - 11/2017

- Became familiar with procedures by managing and tracking chemical inventory
- Spearheaded process to migrate paper tracking to electronic system
- Resulted in more effective tracking and locating of chemicals

Undergraduate Researcher
University of Minnesota, Morris, MN
06/2017 - 08/2017

- Synthesis and characterization of precursors, monomers, copolymer
- Optimizing precursor synthesis
- Maintaining a lab notebook
- Adhering to safety protocols involving lab techniques and chemicals
- Primary literature searches
- Identifying future work for improvements in process and properties of copolymer
- Compiling results and preparing poster for presentation
- Presented by poster at the 255th ACS national conference

Undergraduate Researcher
University of Minnesota, Morris, MN
06/2016 - 05/2017

- Paid research position through Louis Stokes Alliances for Minority Participation (LSAMP) grant
- Synthesis and characterization of organic ligand precursors, organic ligands, and MOFs
- Post-synthetically modified MOFs
- Quantifying protein adsorption after incubation period with gel electrophoresis and fluorometry
- Analyzing and interpret data
- Compiling results and preparing poster for presentation and final lab report
- Poster presented at the 253rd ACS national conference

Undergraduate Researcher
University of Minnesota, Morris, MN
09/2015 - 12/2015

- Develop calibration curve from hexanes and ethyl acetate standards
- Test unknown mixtures to ensure calibration curve was accurate
- Worked without direct supervision
- With this method TLC eluent can be recycled

Work History

Laborer/Equipment Operator
Riley Brothers Construction, Morris, MN
Summers 2013, 2014, & 2015

Drill Operator/Blaster
Wisconsin Industrial Sand, Maiden Rock, WI
2004-2009

Slot Department Supervisor
Grand Casino Mille Lacs, Onamia, MN
2002-2003

Publication

Benzodithiophene homopolymers via direct (hetero)arylation polymerization
https://link.springer.com/article/10.1007/s00289-018-2346-6 May 2018
Direct (hetero)arylation polymerization of a monobrominated benzo[1,2-b:4,5-b′]dithiophene (BDT) monomer was carried out using the Herrmann–Beller catalyst and two ligands, P(o-OMePh)3 and P(o- NMe2Ph)3, in different trials. Both ligands resulted in a respectable yield however the P(o-NMe2Ph)3 resulted in almost a double MW polymer. An additional finding revealed that the monobrominated and dibrobrominated BDT can be separated via simple column chromatography.