

James Ho

Curriculum Vitae (updated as of 12/05/2022)

Email: hojam@oregonstate.edu

Phone number: (702)-824-2860

LinkedIn: <https://www.linkedin.com/in/james-ho-2750a5248/>

Personal Website: <https://jameshomies.github.io/hojam/>

Education

Honors B.S Chemical Engineering; GPA: 3.69

Oregon State University

September 2019-June 2023

- Areas of Interest: Materials, Separations, Carbon Capture and Heterogeneous Catalysis

Research Experience

Materials and Discovery Lab

May 2021-Current

Oregon State University Department of Chemistry

- Projects: Reticular synthesis of chiral MOFs for enantioselective drug separations; value-added carbon dioxide catalysis using ruthenium-MOF (see publication); encapsulating metal-nanoparticles into MOF frameworks for dual-promoting carbon dioxide hydrogenation

Subramanian Research Group

February 2021-Current

Oregon State University Department of Chemistry

- Projects: Assisted a graduate student in synthesizing and characterizing solid solutions to better understand structure-property relationships and assisting in writing a second-author manuscript

Electroceramics Research Group

November 2021-June 2022

Oregon State University Mechanical, Industrial and Manufacturing Engineering

- Project: Collaborated with an international company to synthesize a new thermoresistant ceramic capacitor within cellphones

Publications and Presentations

- **James Ho**, Makenzie T. Nord, Jared P. Stafford, and Kyriakos C. Stylianou
Active Ruthenium-based Metal-Organic Framework Catalyst for CO₂ Fixation onto Epoxides;
Published to Catalysis Science & Technology: October 17th, 2022;
<https://doi.org/10.1039/D2CY01170K>
- Review Paper for CH615: Special Topics in Inorganic Chemistry:
Homochiral Metal-Organic Frameworks for Chiral Drug Separations
- Annual American Institute of Chemical Engineers (AIChE) Poster Presentation November 14th, 2022
Reticular Synthesis of Homochiral Metal-Organic Frameworks for Enhanced Enantioselective Separation of Racemic Drugs

Teaching Experience

- **Teaching Assistant**

- CH 231: General Chemistry (2 sections total) Fall 2020, 2022
- CH 232: General Chemistry (2 sections total) Winter 2021, 2022
- CH 233: General Chemistry (3 sections total) Spring 2021, 2022
- CH 261: General Chemistry Laboratory (2 sections total) Fall 2020, 2022
- CH 262: General Chemistry Laboratory (3 sections total) Winter 2020, 2022
- CH 263: General Chemistry Laboratory (1 section total) Spring 2021

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- **Learning Assistant**
 - MTH 251: Differential Calculus September 2020-December 2020
 - CHE 331: Transport Phenomena I September 2022-Current
 - Two guest lectures for COMSOL software introduction
 - CHE 332: Transport Phenomena II Winter 2023 (future)
 - CHE 312: Chemical Engineering Thermodynamics Winter 2023 (future)
- **Honors College Tutor for General and Organic Chemistry** November 2021-Current
- **Resident Assistant** (9 dormitories, totaling over 2,000 students) September 2020-Current
- **Supplemental Instructions Leader** (90 students total) January 2021-June 2021

Skills

- Instrumentation
 - PXRD, TGA, NMR, FT-IR, UV-Vis, SEM, circular dichroism, dielectric measurements, colorimetry, neutron and optical characterization
- Coding Languages/software
 - Excel, MATLAB, Python, Julia, COMSOL, ChemSep, Origin, HTML, CSS and JavaScript
- Personal
 - American Sign Language (6 years), website design, pedagogy, science outreach and communication

Relevant Courses

- Graduate
 - CH 615: Selected Topics in Inorganic Chemistry
 - CHE 541: Catalysis
- Undergraduate
 - CH 230x: General Chemistry
 - CH 330x: Organic Chemistry
 - CH 440x: Physical Chemistry
 - BB 450x: Biochemistry
 - CHE 310x: Thermodynamics
 - CHE 330x: Transport Phenomena
 - MATS 321: Introduction to Materials Science
 - BIOE 351: Biomaterials and Biointerfaces
 - BIOE 445: Surface Analysis

Honors and Awards

- Dean's List Present
- Barry Goldwater Scholarship & Excellence in Education Foundation Nomination January 2022
- D&A Edwards End/CBEE Academic Scholarship 2022
- Peter and Rosalie Johnson Scholarship 2021
- Dianne Finklein Memorial Scholarship May 2021

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Activities and Service

- LGBTQ+ Advocacy
 - OSTEM (Out in Stem) Present
 - Trevor Project Crisis Line Operator Summer 2020-Summer 2022
 - SafeGuard Youth LGBTQ+ Affairs Coordinator Summer 2020-Fall 2021
- ChemE-Car Present
- American Institute of Chemical Engineers (AIChE) Society Present
 - AIChE Club Present
- Acacia Fraternity Present
- STEM Outreach
 - AIChE K-12 STEM Showcase November 14th, 2022
 - OSU Discovery Day STEM K-8 outreach November 1st, 2022