Mohamed Oudah

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EDUCATION

- PhD in Physics at the Kyoto University, Japan, Highest Honors (2015-2018)
  Thesis: "Superconductivity in Antiperovskite Oxide $Sr_{3-x}SnO$" Supervisor: Yoshiteru Maeno
- MSc in Chemistry-Nanotechnology at the University of Waterloo, Canada (2013-2014)
  Thesis: "Optimization of Thermoelectric Chalcogenides" Supervisor: Holger Kleinke
- BAS in Chemical Engineering, University of Ottawa, Canada (2006-2012)
  Thesis: "Ammonia electro-oxidation on alloyed PtIr nanoparticles" Supervisor: Elena Baranova

EMPLOYMENT & RESEARCH POSITIONS

Senior Scientist – SBQMI – University of British Columbia, 100% Research (January 2021-Current)
Area of Focus: Growth and low temperature measurements of intermetallics and high-entropy oxides with topology, superconductivity and magnetism, and muon spin relaxation studies.

SBQMI & UBC-MPI-UTokyo Fellow –University of British Columbia (June 2018 - January 2021)
Advisors: Doug Bonn, George Sawatzky
Area of Focus: Single crystal growth and low temperature measurements of semimetallic superconductors

Visiting Fellow – Max Planck Institute, Stuttgart (June-December 2018, July-August 2019)
Advisors: Bernhard Keimer, Hidenori Takagi
Area of Focus: High-pressure synthesis of novel oxides and chalcogenides and crystal growth of oxides

Visiting Fellow – Princeton University (May-July 2019)
Advisors: Leslie Schoop
Area of Focus: Crystal growth and exploration of new topological square-net materials

Physics PhD Candidate – Kyoto University (April 2015 – March 2018)
Advisor: Yoshiteru Maeno
Area of Focus: Discovery of superconductivity in the antiperovskite oxides with topological semimetallicity

Research Assistant – University of Waterloo (January 2013 – March 2015)
Advisor: Holger Kleinke
Area of Focus: Improving the thermoelectric performance of copper chalcogenides for clean energy

Research Intern – NTT BRL, Japan, 100% Rsearch (September 2010 – September 2011)
Advisor: Yasuyuki Kobayashi
Area of Focus: Characterization of freestanding III-V heterostructure thin-film

AWARDS & FELLOWSHIPS

- QuantEmX Exchange Award (2023)
- Best Poster Prize at Conference on Strongly Correlated Electron Systems (SCES), 1st Place (2022)
- SBQMI & MPI-UBC-UTokyo Fellowship (2018-2021)
- MEXT Research Scholarship, Full Scholarship to Study in Japan (2015-2018)
- University of Waterloo Special Graduate Scholarship (2014)
- Andrew Moffitt Memorial Scholarship and University of Ottawa Engineering Scholarships (2009, 2012)
- Wilfrid Brisson Undergraduate Memorial Scholarship and McLimont Scholarship (2009)
- Ontario Professional Engineers Foundation for Education Scholarships (2009)
- Queen Elizabeth Aiming for the Top Scholarship (2006-2009)

TEACHING & SUPERVISION

- Leading and teaching seminars on X-ray diffraction and crystal structures at UBC for Quantum Pathways undergraduate students from underrepresented groups in physics (2020-2021)
- Supervision of six undergraduate and seven graduate students at UBC (2019-2024)
- Supervision of the research of international exchange students at Kyoto University (2017-2018)
- Teaching assistant for CHEM 120: Physical and Chemical Properties of Matter and CHEM 123: Chemical Reactions, Equilibria and Kinetics at University of Waterloo (2013-2014)

ACADEMIC SERVICES

- CIFAR Spring School on Quantum Materials Organizing Committee (June 2023)
- Session chair at Materials and Mechanisms of Superconductivity (M2S) Conference (July 2022)
- Organizer of seminar on high-entropy materials at University of British Columbia (2021-2023)
- Reviewer for publications in *Advanced Materials* & *APL Materials*
- Provided lab tours at SBQMI for funders from government and industry (2019-present)
- Presented results in press release at Kyoto University to local news papers (Oral-Japanese, 2016)

INVITED TALKS

- TU Wien, Austria (2023) Discovery of Superconductivity and Electron-Phonon Drag in the Non-Centrosymmetric Semimetal $LaRhGe_3$
- ETH, Switzerland (2022) - Discovery of Superconductivity in the Non-Centrosymmetric Semimetal $LaRhGe_3$
- Aalto University, Finland (2021) - Unusual Sn State in the Superconducting Disordered Selenide
- Rice University, USA (2020) - Antimonides, Tellurides, and Square-Net Materials
- ETH Zurich, Switzerland (2019) - Exploration of Ag-Bi-O Phases Synthesized Under High Pressure
- Ringberg Meeting, MPI, Germany (2018) - Thermoelectric Properties of $BaCu_{6-x}(S,Se)Te_6$
- Hokkaido University, Japan (2017) - Superconductivity in the Antiperovskite Oxide $Sr_{3-x}SnO$
- Yukawa Institute, Kyoto University (2016) - The Superconducting Antiperovskite Oxide $Sr_{3-x}SnO$
- Waterloo Institute of Nanotechnology (2014) - Localized Cu-Ion Mobility in Thermoelectric Chalcogenides

CONTRIBUTED TALKS

- APS March Meeting - 2022, Magnetic Order in Ga-Substituted Spinel Type High Entropy Oxide $(MnFeCrCoNi)_{3-x}Ga_xO_4$
- APS March Meeting - 2019, Boston, USA - Towards Topological States in Silver Bismuthates Synthesized under High-Pressure
- JPS Spring Meeting, Osaka, Japan (2017) - Dependence of the Properties of Superconducting $Sr_{3-x}SnO$ on Sr Deficiency
- JPS Fall Meeting, Kanazawa, Japan (2016) - Superconductivity in the antiperovskite oxide Sr_3SnO

POSTERS

- CIFAR Meeting, Montreal, Canada (2023) - Discovery of Superconductivity and Electron-Phonon Drag in the Non-centrosymmetric Semimetal $LaRhGe_3$
- Strongly Correlated Electron Systems (SCES), Amsterdam, Netherlands (2022) - Type-I Superconductivity in Non-centrosymmetric $LaRhGe_3$
- MPI-UBC-UTokyo Meeting, Vancouver, Canada (2019) - Unusual Sn State in the Superconducting Entropy Stabilized Selenide $Ag_{1-x}Sn_{1+x}Se_2$
- Spectroscopies in Novel Superconductors, Tokyo, Japan (2019) - Spectroscopy of Ag-Bi-O Phases Synthesized Under High Pressure

LANGUAGES

- Native in English and Arabic, fluent in Japanese