

MAHA ALGHAMDI

ASSISTANT PROFESSOR IN PHYSICAL CHEMISTRY

Chemistry Department, Al-Baha University

mahaalghamdi@bu.edu.sa | 0555031160

SKILLS

- Bilingual, fluent in English and Arabic.
- Knowledge of lab equipment and operations, including high vacuum technology, analogue and digital circuits, and nanosecond lasers.
- Ability to use several software packages including office applications, gaussian, gaussview, labview, maple and matlab.

EDUCATION

Ph.D. in Chemistry

2014-2019

Oregon State University
Emphasis: Physical Chemistry

MS. in Chemistry

2012-2014

Oregon State University
Emphasis:
Physical/Theoretical
Chemistry

B.S in Chemistry and Education

2006-2010

Al-Baha University
First Class Honors

EXPERIENCE

- 2020-now Chemistry Department Supervisor of the Female Section
- 2022 Member of the jury for the art of recitation competition, College of Science
- 2021 Member of the Committee for the Empowerment of Women in Al-Baha Region
- 2020-2022 Member of many committees in the chemistry department like: Academic Advising Committee, committee for preparing graduates for the professional exams in chemistry, the Transformation Committee for the three semesters and graduate studies committee,
- 2020-2022 Member of the many committee in the college of science like Student Affairs Committee, Scheduling Committee, Examination Committee,
- 2019-2020 Member of College Committee to Evaluate and Interview Faculty Candidate
- 2019-2020 Head of College Quality and Accreditation Committee
- 2019- now Assistant Professor in Al-Baha University
- 2016-2019 Lecturer in Al-Baha University
- 2013-2016 Teaching Assistant in Al-Baha University

PUBLICATION

- **Alghamdi, Maha D.**, "Green nanomaterials and nanocomposites for corrosion inhibition applications" *Corrosion Reviews*, 2023.
- **Alghamdi, M. D.**, Nazreen, S., Ali, N. M., & Amna, T. (2022). ZnO nanocomposites of juniperus procera and dodonaea viscosa extracts as antiproliferative and antimicrobial agents. *Nanomaterials*, 12(4), 664.
- Alqarni, L. S., **Alghamdi, M. D.**, Alshahrani, A. A., & Nassar, A. M. (2022). Green Nanotechnology: Recent Research on Bioresource-Based Nanoparticle Synthesis and Applications. *Journal of Chemistry*, 2022
- **Alghamdi, M.**, Zhang, J., Bradford, S. D., & Kong, W. (2019). Suppression of multiphoton ionization of aniline in large superfluid helium droplets. *Chemical physics letters*, 735, 136752.
- **Alghamdi, M.**, Zhang, J., & Kong, W. (2019). Doping with multiple cations and failure of charge transfer in large ionized helium droplets. *The Journal of chemical physics*, 151(13), 134307.
- **Alghamdi, M.**, Zhang, J., Oswalt, A., Porter, J. J., Mehl, R. A., & Kong, W. (2017). Doping of Green Fluorescent Protein into Superfluid Helium Droplets: Size and Velocity of Doped Droplets. *The Journal of Physical Chemistry A*, 121(36), 6671- 6678.
- Zhang, J., He, Y., Lei, L., **Alghamdi, M.**, Oswalt, A., & Kong, W. (2017, September). Serial single molecule electron diffraction imaging: diffraction background of superfluid helium droplets. In *Ultrafast Nonlinear Imaging and Spectroscopy V* (Vol. 10380, p. 103800F). International Society for Optics and Photonics.

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RESEARCH INTERESTS:

- Characterization of large superfluid helium droplets.
- Non-thermal ejection of ions from superfluid helium droplets via electronic excitation.
- Doping protein ions into superfluid helium droplets
- Electrospray ionization of macromolecules.
- Ab initio calculations of Beryllium Borohydride and analysis of the molecule spectrum.
- Natural Products Extraction.

TEACHING EXPERIENCE

Kinetic Chemistry
Graduation Project
Voluntary Community Service
Physical Chemistry 1
Physical Chemistry 3
Mineral Extraction and corrosion
Kinetic Chemistry
General Chemistry 1
Specialized English for Science Course
Environmental pollution Course

RECENT CONFERENCES AND WORKSHOPS:

- Presenting workshop titled “Green Chemistry: toward sustainable societies” in cooperation with education ministry within the activities of the national week of talent and creativity at 21/3/2023
- Presenting a workshop with the international science and engineering conference held at 6-8 February 2023.
- Presenting workshop titled “Green nanotechnology” in cooperation with education ministry within the activities of the national week of talent and creativity at 27/3/2022
- Seminar titled “*Strengthening Intellectual Intelligence*”, by intellectual awareness unit at April 12, 2021
- Workshop titled “*Publishing in ISI and Scopus Journals*” by faculty development center at December 8, 2020.
- Webinar titled “*Nano-accelerate Your Research with our Nature Research Solution*” offered by Saudi chemical society at November 17, 2020
- “*First Conference of Heads and Supervisors of Academic Departments*” offered by King Abdullaziz University held at November 12, 2020.
- Giving a seminar titled “*Superfluid Helium Droplets and Research Application*” as part of seminar series offered by the Saudi Chemical society in October 29, 2020
- Webinar titled “*Harvesting Water from Desert Air*” offered by Saudi Chemical Society at July 21, 2020.
- Workshop titled “*Learning Outcomes*” offered by faculty development center at Al-Baha University at June 25th, 2020.
- Workshop titled “*Quality Standards in Graduate Programs*” offered by National Commission for Academic Accreditation and Assessment at March 4th and 5th, 2020.
- Workshop titled “*Preparation of Self-Study Report*” offered by National Commission for Academic Accreditation and Assessment at December 22nd and 23rd, 2019.
- Workshop titled “*Statistics and Analysis for Quality and Accreditation Standards*” offered by National Commission for Academic Accreditation and Assessment at November 26th and 27th, 2019.
- Oregon Academy of Science Meeting, 2019.
- Pacific Conference on spectroscopy and Dynamics, 66th meeting, 2019.