

## CURRICULUM VITAE

### PERSONAL DATA

<b>Name</b>	Laila Alqarni
<b>Nationality</b>	Saudi
<b>Position</b>	Assistant Professor
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### EDUCATION

Year	Academic Degree	Institution
2002-2006	B.A, General Chemistry ,Cumulative GPA: 4.5/5(Merit)	King Abdul Aziz University, Jeddah, KSA,
2006-2009	M.A., Chemistry- Physical Chemistry	King Abdul Aziz University, Jeddah.
2015-2019	Ph.D., Chemistry, Cumulative GPA: 3.9/4.00 (Merit)	New Jersey Institute of Science and Technology, New Jersey State, USA

### WORK EXPERIENCE

Period	Position	Address
2007-2009	Teaching Assistant	Albaha university
2009-2019	Lecturer	Albaha university
2020-2022	Assistant Professor	Albaha university
2022-present	Assistant Professor	Imam Mohammad Ibn Saud Islamic University

### RESEARCH INTERESTS

- Design Novel SERS substrate for bio-sensing applications and related application including biomedical diagnosis
- Molecular modeling of ligands, glucose, and glucose oxidase: a model of binding, conformational and electrostatic considerations
- Graphene quantum dots preparation- Density Functional Theory (DFT) Study of GQDs

- Study of contactless gears, conception and design enhancement of Magnetic Augmented Rotation System, known as MARS.
- Developing prototypes of MARS in relation to automotive, renewable energy and torque transmission applications.
- Identification and Characterization of polymer and related organic pollutants using Raman Spectroscopy.
- Detection of Energetic materials using Raman spectroscopy.
- Biofuel cell (converting chemical energy from glucose and oxygen into electrical energy).
- Plasma enhanced chemical vapor deposition for graphene and graphite sheets
- Graphene preparation.
- Nanoparticles preparation.
- Reduce metals corrosion using environmental materials.
- Inferred imaging.

## PUBLICATIONS

- Hassan, M. S., Amna, T., **Alqarni, L. S.**, Alqahtani, H. S., Alnaam, Y. A., Almusabi, S., & Alzharani, A. A. (2023). High aspect ratio TiO<sub>2</sub>-Mn<sub>3</sub>O<sub>4</sub> heterostructure: proficient nanorods for pathogen inhibition and supercapacitor application. *Materials Science and Technology*, 1-10.
- **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.
- Jari S. Algethami, M. Shamshi Hassan, Touseef Amna \*, **Laila S. Alqarni**, Mohsen A. M. Alhamami, Amal F. Seliem Bismuth Vanadate Decked Polyaniline Polymeric Nanocomposites: Robust Photocatalytic Destruction of Microbial and Chemical Toxicants, MDPI, 2023, UNDER REVIEW
- Vishwas Danthi Shivaram, Roulei Liu, Navjot Panchhi, **Laila Alqarni**, Rayan Daroowalla, Shuang Du, Yan Liu, Tiansee Chow, Nuggehalli Ravindra. (2018), Magnetically Augmented Rotational Systems, TMS 2019 Conference Proceedings
- **Alqarni, L.**, & Iqbal, Z. (2017). Surface-enhanced Raman Spectroscopic Sensing of Glucose. *European Pharmaceutical Review*, 22(6), 23-26.

- Al-turkustani, A. M., ARAB, S. T., & **Alqarni, L. S. S.** (2010). The Use of Ruta Chalepensi as Corrosion Inhibitor for Steel Corrosion in 2M Sulphuric Acid Solution. Oriental Journal of Chemistry, 26(2), 437-454.
- Al-turkustani, A. M., Arab, S. T., & **Alqarni, L. S. S.** (2011). Medicago Sative Plant as Safe Inhibitor on the Corrosion of Steel in 2.0M H<sub>2</sub>SO<sub>4</sub> Solution. Journal of Saudi Chemical Society, 15(1), 73-82.