

Education

Ph.D. Physical Chemistry , **Virginia Commonwealth University, Richmond, VA, USA.** (2004)

M.S. Organic Chemistry, **Tennessee State University, Nashville, TN, USA.** (1998)

BS Applied Chemistry, **Jordan University of Science and Technology, Irbid, Jordan.** (1993)

Awards:

- Alfaisal University appreciation Award.
- Alfaisal University Recognition Award.
- President of the University of Jordan Appreciation Certificate.
- President of the University of Jordan Award.

Grants:

- **Title of project:** "The design of new composite materials containing metal oxide supported 2D graphene sheets", King Abdulaziz City for Science and Technology (KACST). **Amount awarded:** 1,870, 000 SAR.
- **Title of project:** "Synthesis and characterization of polymer nanocomposites via gas phase polymerization," KACST. **Amount awarded:** 1,987, 000 SAR, (Pending).
- **Title of project:** "Effect of Temperature Gradient on Pressure Driven Water Flow in Single-Walled Carbon Nanotubes, KACST. **Amount awarded:** 1,347, 000 SAR, (Pending).

Patents:

Patent issued by the US Patent Office on October 15, 2013 "Composition and method of making nano-composite containing graphene sheets", Edreese H. Alsharaeh, M. AlDosari, A. ARM Othman, United States Patent. USPTO,8557916(2013).

Selected Research Publications:

- Alsharaeh, E.H. Nadimul. H. Faisal , Ali. Othman , Rehan Ahmed , **Evaluation of the nanomechanical properties of poly(styrene-co-methyl methacrylate) composites containing graphene sheets (accepted in : industrial engineering and chemical research ACS publications).**
- Alsharaeh, E.H. Othman Ali, **Facile Method for in situ Preparation of STY-MMA Copolymer Containing Graphene sheets.** Prepr. Pap.-Am. Chem. Soc., Div. Pet. Chem. **2012**, 57 (1).
- Alsharaeh, E.H. **Intracluster Ion Molecule Reactions Following the Generation of Mg⁺ Within Polar Clusters.** Int. J. Mol. Sci. 2011, 12, 9095-9107.
- Alsharaeh, E.H., El-Shall MS, **Ion mobility study of the mechanism of the gas phase thermal polymerization of styrene and the structures of the early oligomers.** Polymer, 52 (2011), 5551-5559
- El-Shall, M. Samy; Ibrahim, Yehia; **Alsharaeh, Edreese;** Meot-Ner, Michael; Watson, Simon: **"Reactions between Aromatic Hydrocarbons and Heterocyclics: Covalent and Proton-Bound Dimer Ions of Benzene/Pyridine"**. Journal of the American Chemical Society Journal of the American Chemical Society 131(29):10066-76, **2009**
- Ibrahim, Yehia; **Alsharaeh, Edreese;** Mabrouki, Ridha; Momoh, Paul; Xie, Enli; El-Shall, M. Samy. **Ion Mobility of Ground and Excited States of Laser-Generated Transition Metal Cations.** Journal of Physical Chemistry A (**2008**), 112(6), 1112-1124.

- Abdelsayed, Victor; **Alsharaeh, Edreese**; El-Shall, M. Samy. **Catalyzed radical polymerization of styrene vapor on nanoparticle surfaces and the incorporation of metal and metal oxide nanoparticles within polystyrene polymers.** *Journal of Physical Chemistry B* (2006), 110(39), 19100-19103.
- **Alsharaeh, Edreese H.**; Ibrahim, Yehia M.; El-Shall, M. Samy. **Direct Evidence for the Gas Phase Thermal Polymerization of Styrene. Determination of the Initiation Mechanism and Structures of the Early Oligomers by Ion Mobility.** *Journal of the American Chemical Society* (2005), 127(17), 6164-6165.
- Ibrahim, Yehia; **Alsharaeh, Edreese**; Dias, Keith; Meot-Ner, Michael; El-Shall, M. Samy. **Stepwise Hydration and Multibody Deprotonation with Steep Negative Temperature Dependence in the Benzene.bul.+Water System. [Erratum to document cited in CA141:395073].** *Journal of the American Chemical Society* (2005), 127(11), 4114.
- Ibrahim, Yehia; **Alsharaeh, Edreese**; Dias, Keith; Meot-Ner, Michael; El-Shall, M. Samy. **Stepwise Hydration and Multibody Deprotonation with Steep Negative Temperature Dependence in the Benzene.bul.+Water System.** *Journal of the American Chemical Society* (2004), 126(40), 12766-12767.
- Ibrahim, Yehia M.; **Alsharaeh, Edreese H.**; El-Shall, M. Samy. **Evidence for Penning Ionization in the Generation of Electronically Excited States of Transition Metal Cations by Laser Vaporization.** *Journal of Physical Chemistry B* (2004), 108(13), 3959-3962.
- Ibrahim, Yehia; **Alsharaeh, Edreese**; Rusyniak, Mark; Watson, Simon; Meot-Ner, Michael; El-Shall, M. Samy. **Separation of isomers by dimer formation: isomerically pure benzene+ and toluene+ ions, and their dimers: ab initio calculations on (benzene)2+.** *Chemical Physics Letters* (2003), 380(1,2), 21-28.
- Rusyniak, Mark; Ibrahim, Yehia; **Alsharaeh, Edreese**; Meot-Ner, Michael; El-Shall, M. Samy. **Mass-Selected Ion Mobility Studies of the Isomerization of the Benzene Radical Cation and Binding Energy of the Benzene Dimer Cation. Separation of Isomeric Ions by Dimer Formation.** *Journal of Physical Chemistry A* (2003), 107(38), 7656-7666.
- El-Shall, M. Samy; Abdelsayed, Victor; Pithawalla, Yezdi B.; **Alsharaeh, Edreese**; Deevi, Seetharama C. **Vapor Phase Growth and Assembly of Metallic, Intermetallic, Carbon, and Silicon Nanoparticle Filaments.** *Journal of Physical Chemistry B* (2003), 107(13), 2882-2886.

Research Interests:

- Nanostructured materials for energy applications.
- Polymer nanocomposites.
- Graphene-based nanosheets and metal nanoparticles composites.
- Molecular clusters.
- Gas phase and cluster polymerization.

Professional Experience

- 2012 – present **Associate Professor of Chemistry and Department Head , Alfaisal University.**
- 2009 – 2012: **Assistant Professor of Chemistry, Alfaisal University.**
- 2008 – 2009: **Assistant Professor of Chemistry Gulf University of Science and Technology, (Kuwait)**
- 2008-Summer **Visiting professor, Virginia Commonwealth University(VCU), Richmond, Virginia, (USA).**

- 2006 – 2008 : **Assistant Professor**, George Mason University RAK campus, (UAE).
- 2004-2006: **R&D Senior Scientist**, Research and Development, *Vintage Pharmaceuticals*, (USA).