



***DR. SAUD HASHMI PH.D.***

Professor/Chairperson

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## **Education**

- 2011-2014/03 Chonbuk National University, South Korea, **Ph.D (Chemical)**.
- 2007-2010/12 NED University of Engineering and Technology, Karachi, Pakistan, **Master (Environmental)**.
- 2001-2005/12 Dawood College of Engineering & Technology, Karachi, Pakistan, **Bachelor (Chemical)**.

## **Work Experience**

- 2022-Present NED University of Engineering & Technology, Department of Polymer & Petrochemical Engineering, **Professor & Chairperson**.
- 2017-2022/01 NED University of Engineering & Technology, Department of Polymer & Petrochemical Engineering, **Associate Professor**
- 2014-2017/07 NED University of Engineering & Technology, Department of Chemical Engineering, **Assistant Professor**.
- 2009-2014/12 NED University of Engineering & Technology, Department of Chemical Engineering, **Lecturer**.
- 2006-2009/07 ICI PTA PVT.LIMITED (LOTTE PAKISTAN PTA), **Shift Engineer**.

## **Industrial/ Commercial Research Project**

1. Developing Methodology for Reverse Engineering and New Rubber Compounds with Desired Physico-Chemical Properties. **Pakistan Air Force** (In Progress).
2. Development of Lithium Based Crystal Grease. **Pak Grease Limited**.
3. Development of hygroscopic material based on desiccant wheel for dehumidification purposes. **AGP Pharma Limited**.
4. Development of cut resistance coating for safety gloves. **MIDAS Safety**.

## Publications

### International Journal Papers/ SCI Publication

- 1) M Moral-Zamorano, I Quijada-Garrido, V San-Miguel, B Serrano, **Saud Hashmi**, "Concentration Effect over Thermoresponse Derived from Organometallic Compounds of Functionalized Poly (N-isopropylacrylamide-co-dopamine Methacrylamide), *Polymers* 13 (22), 3921 Jan 2022. **IF 4.2**
- 2) **S Hashmi**, A Mushtaq, R Ahmed, RM Khan, ZU Ali, "Synthesis and Application of Hydrogels for Oil-Water Separation", *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)* Feb 2022. **IF 0.8**
- 3) FJ Stadler, S Cui, **S Hashmi**, S Handschuh-Wang, W Li, S Wang, ZC Yan, "Multiple interval thixotropic test (miTT)—an advanced tool for the rheological characterization of emulsions and other colloidal systems", *Rheologica Acta*, 1-14. Feb 2022. **IF 2.2**
- 4) **Saud Hashmi**, S Nadeem, A García-Peñas, R Ahmed, A Zahoor, "Study the Effects of Supramolecular Interaction on Diffusion Kinetics in Hybrid Hydrogels of Zwitterionic Polymers and CNTs", *Macromolecular Chemistry and Physics*, 2100348, Jan 2022. **IF:3.2**
- 5) SM Lalji, SI Ali, R Ahmed, **S Hashmi**, ZUH Awan, "Comparative performance analysis of different swelling kinetic models for the evaluation of shale swelling, *ournal of Petroleum Exploration and Production Technology*, 1-13 Dec 2021. **IF 2.5**
- 6) Sajid Muhbat, Muhammad Tufail, **Saud Hashmi**, "Production of Diesel-like Fuel by Co-Pyrolysis of Waste Lubricating Oil and Waste Cooking Oil", *Biomass Conversion and Biorefinery* accepted 5 May 2021. **IF: 2.602.**
- 7) Awan Zahoor, Raza Faizan, Khaled Elsaid, **Saud Hashmi**, Faaz Ahmed Butt, Zafar Khan Ghouri, "Synthesis and experimental investigation of  $\delta$ -MnO<sub>2</sub>/N-rGO nanocomposite for Li-O<sub>2</sub> batteries applications", *Chemical Engineering Journal Advances* Volume 7, 15 August 2021, 100115.
- 8) Zahoor Hussein Awan, Bilal Kazmi, **Hashmi Saud**, Faizan Raza, Sahzeb Hasan, Farzana Yasmin, "Process System Engineering (PSE) Analysis on Process and Optimization of the Isomerization Process", *Iran. J. Chem. Chem. Eng. Research Article* Vol 40 (1) 2021 **IF: 1.01.**
- 9) Awan Zahoor, Zafar Khan Ghouri, **Saud Hashmi**, Faizan Raza, Shagufta Ishtiaque, Saad Nadeem, Inayat Ullah, and Kee Suk Nahm, "Electrocatalysts for the Lithium air batteries: Current status and the challenges". *ACS Sustainable Chemistry & Engineering* 7 (17), 14288-14320 2019 **IF: 6.2.**
- 10) **Hashmi S**, Saad Nadeem, Awan Zahoor, Adeel ur Rehman, Ahsen Abdul Ghani "Synthesis, Applications and Swelling Properties of Poly (Sodium Acrylate-Coacrylamide) Based Superabsorbent Hydrogels" *Journal of the Chemical Society of Pakistan* 41 (4), 668-678 October 2019 **IF: 0.28.**
- 11) Syed Kazmi, Zahoor Awan , **Saud Hashmi** "Simulation Study of Ionic Liquid Utilization for Desulfurization of Model Gasoline" *Iranian Journal of Chemistry and Chemical Engineering (IJCCE)* 38 (4), 209-221 July 2019 **IF: 1.01.**
- 12) **Hashmi S**, Awan Zahoor, Zafar Khan Ghouri "Thermo-Rheological Complexity of Novel Branch Polyethylene Synthesized by High Performance Bulky -Diimine Nickel (II) Catalysts", *Materials Focus* 7 (4), 573-581, August 1, 2018.
- 13) Bilal Kazmi, Awan Zahoor, **Hashmi S** "Viability of Shale Gas and CO<sub>2</sub> Removal using 1-Butyl-3-Methylimidazolium Tetrafluoroborate", *International Journal of Innovative Science and Research Technology*, Volume 3, Issue 5, May – 2018
- 14) Bilal Kazmi, Awan Zahoor, **Hashmi S**, Zafar Khan Ghouri "Desulfurization of the dibenzothiophene (DBT) by using imidazolium-based ionic liquids(Ils)" *Materials Physics and Chemistry* April-(2018) Volume 2.
- 15) Zahoor Awan , Zafar Khan Ghouri , **Hashmi S** "Influence of Ag nanoparticles on state of the art MnO<sub>2</sub> nanorods performance as an electrocatalyst for lithium air batterie" *Hydrogen Energy*, Volume 43, Issue 5, 1 February (2018), Pages 2930-2942. **IF:3.5**
- 16) Mohammad Vatankhah-Varnoosfaderani, **Hashmi S**, Florian J. Stadler, Amin GhavamiNejad " Mussel-inspired 3D networks with stiff-irreversible or soft-reversible characteristics - It's all a matter of solvent" *Polymer Testing*, Volume 62, Pages 96-101, June 2017 **IF: 2.24.**
- 17) Stadler FJ, **Hashmi S**, GhavamiNejad A, Vatankhah-Varnoosfaderani M , " Rheology of dopamine containing polymers ", *ANNUAL TRANSACTIONS OF THE NORDIC RHEOLOGY SOCIETY*, VOL. 25, 2017.
- 18) **Hashmi S**, GhavamiNejad A, , Mohammad Vatankhah-Varnoosfaderani, Florian J. Stadler "Effect of H<sub>2</sub>O and reduced graphene oxide on the structure and rheology of self-healing, stimuli responsive catecholic gels" *Rheologica Acta*, Volume 55, Issue 2, pp 163–176, February 2016 **IF: 1.8**
- 19) Mohammad Vatankhah-Varnoosfaderani, Amin GhavamiNejad, **Hashmi S**, Florian J. Stadler "Hydrogen Bonding in Aprotic Solvents, a New Strategy for Gelation of Bioinspired Catecholic Copolymers with N – Isopropylamide", *Macromolecular Rapid Communication*, Volume 36, Issue 5, pages 447–452, March 2015 **IF: 4.6.**
- 20) **Hashmi S**, Mohammad Vatankhah-Varnoosfaderani, Amin GhavamiNejad, Francis O. Obiweluozor, Bing Du, Florian J. Stadler, " Self-associations and temperature dependence of aqueous solutions of zwitterionically modified N-isopropylacrylamide copolymers", *Rheologica Acta*, DOI 10.1007/s00397-015-0837-z, February 2015 **IF: 1.8.**
- 21) **Hashmi S**, GhavamiNejad A, Stadler FJ, " Oscillations in modulus in solutions of graphene oxide and reduced graphene oxide with grafted poly-N-isopropylamide", *Soft Matter*, 2015,11, 1315-1325 **IF: 4.2**
- 22) G. Gnana Kumar , **Hashmi S**, C. Karthikeyan, Amin GhavamiNejad, Mohammad Vatankhah-Varnoosfaderani, Florian J. Stadler, "Carbonaceous nanocomposite hydrogels – versatile building blocks for microbial fuel cell applications", *Macromolecular Rapid Communication*, Volume 35, Issue 21, pages 1861–1865, November 2014 **IF: 4.6**
- 23) GhavamiNejad A, **Hashmi S**, Mohammad Vatankhah-Varnoosfaderani, Florian J. Stadler, " Network formation in graphene oxide composites with surface grafted PNIPAM chains in aqueous solution characterized by rheological experiments", *Phys. Chem. Chem. Phys.*, 2014,16, 8675-8685. **IF: 3.8**

- 24) Francis O. Obiweluozor, Amin GhavamiNejad, **Hashmi S**, Mohammad Vatankhah-Varnoosfaderaniand, Florian J. Stadler, "A NIPAM–Zwitterion Copolymer: Rheological Interpretation of the Specific Ion Effect on the LCST", *Macromolecular Chemistry and Physics*, 2014, DOI: 10.1002/macp.201300778. **IF: 2.3**
- 25) Mohammad Vatankhah-Varnoosfaderani, **Hashmi S**, Amin GhavamiNejad, Florian J. Stadler, "Rapid Self-Healing and Triple Stimuli Responsiveness of a Supramolecular Polymer Gel Based on Boron-Catechol Interactions in a Novel Water-Soluble Mussel-Inspired Copolymer", *Polym. Chem.*, 2014,5, 512-523 **IF: 5.4**
- 26) Mohammad-Vatankhah-Varnoosfaderani, Amin GhavamiNejad, **Hashmi S**, Florian J. Stadler "Mussel-Inspired pH-triggered Reversible Foamed Gel – the Surprising Effect of Water", *Chemical Communications* 2013, 49, 41, 4685-4687. **IF: 6.3**
- 27) **Hashmi S**, GhavamiNejad A, Obiweluozor F, Vatankhah-Varnoosfaderani M, Stadler FJ, "Supramolecular Interaction Controlled Diffusion Mechanism and Improved Mechanical Behavior of Hybrid Hydrogel Systems of Zwitterions and CNT", *Macromolecules*, 2012, 45 (24),pp 9804–9815. **IF: 6.5**
- 28) **Hashmi S**, Obiweluozor F, GhavamiNejad A, Vatankhah-Varnoosfaderani M, Stadler FJ, "On-line Observation of Hydrogels during Swelling and LCST-induced changes", *Korea-Australia Rheology Journal*, 2012, 24, 3, 191-198. **IF:1.2**

## Professional memberships

Member of Pakistan Engineering Council, bearing registration No: *CHEM/6907*

## Areas of Interests

- Polymer Synthesis & Characterization, Advanced soft materials, super absorbents and hydrogels, self-healing gels, polymer based sensors, polymer nanofiber.
- Synthesis of Carbon Nanoparticles and Characterization.
- Polymer Nanocomposites for Bio, Energy, Agriculture and Environmental Applications.

## Languages

- English
- Korean