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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

- 11-01-2022- Present NED University of Engineering & Technology, Department of
Chemical Engineering, **Professor**
- 2017-10-01-2022 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

Annexure-A

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

Publications***Cumulative Impact Factor : 150[±]*****International Journal Papers JCR: 41 | Total Citations: 652 | h-index:13| i10-index:15**ORCHID ID: (<https://orcid.org/0000-0003-4993-0498>),*Google Scholar ID: Dr. Saud Hashmi*

- 1) **Saud Hashmi**, Rafiq Ahmed, Adeel ur Rehman, Alberto García-Peñas, Awan Zahoor, Firoz Khan, Mohammad Vatankhah-Varnosfaderani, Thamraa Alshahrani, Florian J Stadler, “Study of the synergistic influence of zwitterionic interactions and graphene oxide on water diffusion mechanism and mechanical properties in hybrid hydrogel network”, **Chemosphere** Volume 314, **February 2023**, 137710. **IF: 9**
- 2) Syed Imran Ali, Shaine Mohammadali Lalji, Zahoor Awan, **Saud Hashmi**, Ghani Khan, Muhammad Asad, “Comprehensive performance analysis of kinetic models used to estimate asphaltene adsorption kinetics on nanoparticles”, **Chemical Papers 2022**, Pages 1-15. **IF: 2.09**
- 3) Samra Asad, Awan Zahoor, Faaz Ahmed Butt, **Saud Hashmi**, Faizan Raza, Inam Ul Ahad, Jabir Hakami, Sami Ullah, Amir Al-Ahmed, Firoz Khan, Maria Christy, “Recent Advances in Titanium Carbide MXene (Ti3C2T x) Cathode Material for Lithium–Air Battery”, **ACS Applied Energy Materials 2022**, Volume 5, Issue 10, Pages 11933-11946. **IF: 6.9**
- 4) Syed Imran Ali, Shaine Mohammadali Lalji, Zahoor Awan, **Saud Hashmi**, Muhammad Noman, Nimra Yousaf, “Performance analysis of kinetic models in predicting asphaltene precipitation rate under different conditions of temperature and percentage of precipitant molecular weight”, **Arabian Journal of Geosciences 2022**, Springer Pages-1475, Volume 15, Issue 17. **IF: 2.01**
- 5) Cui, S.-M.; **Saud Hashmi**; Li, W.-Q.; Handschuh-Wang, S.; Zhu, C.-T.; Wang, S.-C.; Yang, P.-P.; Huang, Y.-F.; Zhu, G.-M.; Stadler, F.J. “Influence of Cellulose Nanofibers on the Behavior of Pickering Emulsions. Part 1. Microscopy and Startup Flow Test”. **Materials 2022, 15, 8285**. <https://doi.org/10.3390/ma15238285>. **IF: 4.2**
- 6) Shehroze Tahir Khan, Maaz Akhtar, Murtuza Mehdi, Nauman Malik, **Saud Hashmi**, Faaz Butt, “Characterizations of a Cost-Effective Single Component Polymer for Stretchable and Flexible Microelectromechanical Systems Applications”, **JOURNAL OF TESTING AND EVALUATION, 2022 - AMER SOC TESTING MATERIALS IF: 1.33**.
- 7) Kainat Amin Bora, **Saud Hashmi**, Faisal Zulfiqar, Zainul Abideen, Haibat Ali, Zamin Shaheed Siddiqui and Kadambot H. M. Siddique, “Recent progress in biomediated synthesis and applications of engineered nanomaterials for sustainable agriculture”, **Frontiers in Plant Science Front. Plant Sci. 13:999505**.
doi: 10.3389/fpls.2022.999505 **October 2022 I.F : 6.67**

- 8) Maria Hasnain, Zainul Abideen, **Saud Hashmi**, Shagufta Naz & Neelma Munir, “Assessing the potential of nutrient deficiency for enhancement of biodiesel production in algal resources”, **Biofuels**, **05 August 2022. I.F: 2.95**
- 9) Ghadia Ahmed, Faaz Ahmed Butt, Faizan Raza, **Saud Hashmi**, G Gnana Kumar, Maria Christy, “The study of different redox mediators for competent Li–air batteries”, **Journal of Power Sources**, **Vol-538 pages-231379, Elsevier 1 August 2022. I.F: 9.12**
- 10) Shaine Mohammadali Lalji, Syed Imran Ali, Rafiq Ahmed, **Saud Hashmi**, Zahoor Ul Hussain Awan, Yunus Jawed,” Study the effect of mineral content on water diffusion mechanism and swelling characteristics in shale formation of Pakistan”, **Arabian Journal of Geosciences**, **2022. IF:0.5**
- 11) **Saud Hashmi**, Taqvi, S.A.A.Abideen, Z.Ahmed, J.P.Talha, M.Bhatti, M.A.Shahid, H.Naqvi, S.R. Almomani, F., “Simulation of steam gasification of halophyte biomass for syngas production using Aspen Plus®”, **Biomass Conversion and Biorefinery**, **2022, IF:4.6.**
- 12) Shaine Mohammadali Lalji, Syed Imran Ali, Rafiq Ahmed, **Saud Hashmi**, Zahoor Ul Hussain Awan, Syed Wajahat Ali Qazi, “Influence of graphene oxide on salt-polymer mud rheology and Pakistan shale swelling inhibition behavior”, **Arabian Journal of Geosciences**, **2022. IF:0.5**
- 13) **Saud Hashmi**, Asim Mushtaq, Rafiq Ahmed, Raza Muhammad Khan, Zaeem Uddin Ali, “Synthesis and Application of Hydrogels for Oil-Water Separation.”, **Iranian Journal of Chemistry and Chemical Engineering (IJCCE)**, **2022 IF:0.67**
- 14) Florian J Stadler, Shuming Cui, **Saud Hashmi**, Stephan Handschuh-Wang, Wenqiang Li, Shichang Wang, Zhi-Chao Yan, Guangming Zhu , “Multiple interval thixotropic test (miTT)—an advanced tool for the rheological characterization of emulsions and other colloidal systems”, **Rheologica Acta**, **2022. IF:2.5**
- 15) **Saud Hashmi**, Saad Nadeem, Alberto García-Peñas, Rafiq Ahmed, Awan Zahoor, Mohammad Vatankhah-Varnoosfaderani, and Florian J. Stadler, “Study the Effects of Supramolecular Interaction on Diffusion Kinetics in Hybrid Hydrogels of Zwitterionic Polymers and CNTs”, **Macromol. Chem. Phys. Jan 2022. IF:2.6.**
- 16) SM Lalji, SI Ali, R Ahmed, **Saud Hashmi**, ZUH Awan, “Comparative performance analysis of different swelling kinetic models for the evaluation of shale swelling”, **Journal of Petroleum Exploration and Production Technology**, **24 November 2021. IF:2.07**
- 17) María Moral-Zamorano , Isabel Quijada-Garrido , Verónica San-Miguel , Berna Serrano , Juan Baselga , **Saud Hashmi** , Florian J. Stadler, and Alberto García-Peñas, “Concentration Effect over Thermoresponse Derived from Organometallic Compounds of Functionalized Poly(N-isopropylacrylamide-co-dopamine Methacrylamide)”, **Polymers 2021, 13, 3921. IF:4.3**
- 18) Alberto García-Peñas , Weijun Liang , **Saud Hashmi** , Gaurav Sharma, Mohammad Reza Saeb and Florian J. Stadler “Hydrogen Bonds in Blends of Poly(N-isopropylacrylamide), Poly(N-ethylacrylamide) Homopolymers, and

Carboxymethyl Cellulose”, **J. Compos. Sci.** **2021**, **5**, **240**.

- 19) Sajid Muhat, 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 (In Press). **IF: 2.602**.
- 20) Awan Zahoor, Raza Faizan, Khaled Elsaid, **Saud Hashmi**, Faaz Ahmed Butt, Zafar Khan Ghouri, “Synthesis and experimental investigation of δ -MnO₂/N-rGO nanocomposite for Li-O₂ batteries applications”, **Chemical Engineering Journal Advances** **Volume 7**, 15 August 2021, 100115.
- 21) 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 I.F: 1.01**.
- 22) 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 **I.F: 6.2**.
- 23) **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 **I.F: 0.28**.
- 24) **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 **I.F: 1.01**.
- 25) **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**.
- 26) Bilal Kazmi, Awan Zahoor, **Hashmi S** “Viability of Shale Gas and CO₂ Removal using 1-Butyl-3-Methylimidazolium Tetrafluoroborate”, **International Journal of Innovative Science and Research Technology**, **Volume 3, Issue 5, May – 2018**
- 27) Bilal Kazmi, Awan Zahoor, **Hashmi S**, Zafar Khan Ghouri "Desulfurization of the dibenzothiophene (DBT) by using imidazolium-based ionic liquids(IIs)" **Materials Physics and Chemistry** **April-(2018) Volume 2**.
- 28) Zahoor Awan , Zafar Khan Ghouri , **Hashmi S** "Influence of Ag nanoparticles on state of the art MnO₂ nanorods performance as an electrocatalyst for lithium air batterie" **Hydrogen Energy**, **Volume 43, Issue 5, 1 February (2018)**, **Pages 2930-2942. IF:3.5**
- 29) 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.

- 30) Stadler FJ, **Hashmi S**, GhavamiNejad A, Vatankhah-Varnoosfaderani M , " Rheology of dopamine containing polymers ", ANNUAL TRANSACTIONS OF THE NORDIC RHEOLOGY SOCIETY, VOL. 25, **2017**.
- 31) **Hashmi S**, GhavamiNejad A, , Mohammad Vatankhah-Varnoosfaderani, Florian J. Stadler "Effect of H₂O 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**
- 32) 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**.
- 33) **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**.
- 34) **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**
- 35) 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**
- 36) 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**
- 37) Francis O. Obiweluozor, Amin GhavamiNejad, **Hashmi S**, Mohammad Vatankhah-Varnoosfaderani and, 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**
- 38) 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**
- 39) 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**
- 40) **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: 5.5.**

- 41) **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.**