

Dr. NISAR ALI**Associate professor**

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Career Objectives

A creative and enthusiastic person with diverse range of Laboratory/Analytical and teaching experiences especially in the field of polymer synthesis, composite and magnetic composite nano scale materials. Highly-motivated Chemistry Ph.D looking to fill a position as a Chemistry Teacher. Organized, hardworking and energetic. Wishing to leverage my passion for technology and instruction to influence students. Outgoing with strong and effective organizational and communication skills. Good team player and able to use own initiative to achieve company objectives. Versatile and learns new tasks/ skill quickly.

Research Interests

- Polymer synthesis and preparation of composite material
- Synthesis of hybrid nano-materials having smart surfaces.
- Interfacially active and magnetically responsive nano composites
- Nanotechnology applications for demulsification of heavy water in Oil emulsion
- Nanotechnology applications for environmental remediation.
- Efficient Photocatalytic Degradation of Dyes.

Areas of Expertise

- Polymer characterization and study of their physical properties, i.e. molding and tensile strength.
- Materials characterization for heavy water and oil emulsion separation
- Design of various types of polymeric nanomaterials using wet-chemical routes, precipitation and emulsion polymerization techniques
- Characterization of hybrid nano- composites, nanoparticles.
- Design, preparation and characterization of nano composites in Janus, Resbarry and core shell like surface morphology.
- Chromatography: GC, GCMS, HPLC
- Spectroscopy/ Spectrometry: Single Crystal X-ray Crystallography, UV-VIS, IR, FTIR, Scanning electron microscopy (SEM), Transmission Electron Microscopy (TEM)

Academic Qualifications

- **Ph.D (Chemistry)** Department of Chemistry, School of Science, Northwestern Polytechnical University Xi' a China. (2012 to 2016)
- M.Phil (Fuel/polymer chemistry) with 3.6 CGPA. Institute of Chemical Sciences, University of Peshawar, Pakistan in Applied chemistry. (2004 to 2007)
- M.Sc (Fuel/polymer chemistry) Department of Chemistry, University of Peshawar (1999-2001) in 1st Division 3.5 CGPA. (1998 to 2001)
- B.Sc (BIO –SCIENCES) (1997-1999) University of Peshawar. (1996 to 1998)
- B.Ed. Allama Iqbal Open University, Islamabad in Science Education.

Research project in Ph.D**Controlled synthesis of block copolymer and their fabrication of magnetic composite particles and their performance of oil-water separation**

In the current research project, a completely new family of reusable nanoscale magnetic amphiphilic composites with a Janu, raspberry and core shell like structure are described. In our approach the

magnetic composite nanoparticles possesses strong magnetic Fe₃O₄ with an interfacially active organic block co-polymers of P(MMA-AA-DVB) and P(GMA-DVB-EDA). The Interfacial activity of P(MMA-AA-DVB) and P(GMA-DVB-EDA) brings the magnetic composite nanoparticles at the oil/water interface to tag the emulsified water droplets and to effectively separate them by external magnet. The advantage of this new material is that it separates water in a short time and at low temperature with reduced oil loss and sludge formation. These composites can be magnetically recovered and reused several times. These composites demulsifier do not contaminate the treated emulsion and is a novel example of the application of nanotechnology in the field of oil and gas industry.

Awards & Prizes

- Chinese Government Scholarship supported by the Chinese Scholarship Council for Ph.D studies session 2012/2016.
- Winner of North-western Polytechnical University Xian China Postgraduate Scholarship of excellent research scholar for the session 2014/2015.
- Winner of Wu Ya Zhun Scholarship of excellent research scholar for the session 2014/2015 in North-western Polytechnical University Xian China.

Projects in progress:

- Polymeric magnetic hybrid and assembly materials for hydrocarbon remediation and demulsification. [Key laboratory for special resource development and medicinal research in Jiangsu Province](#). [Project number. LPRK202101.](#)
- 化学工程学院, Nanomagnetic material synthesis and its application in environmental protection, Green environmental protection and solid waste resources. Environmental Science and Engineering. [Project number: No, 202111049352.](#)
- The Natural Science Foundation of Jiangsu Province (No. BK20181064): Study on the construction and mechanism of mineral matrix composite for irreversibly adsorbing low concentration radioactive iodine.
- Key Technology Research on photocatalytic phenol preparation in microreactors, Number: SJCX20_1332.

Employment history:

- **Organization:** School of Chemistry and Chemical Engineering, Huaiyin Institute of Technology, 1 Meicheng road, 223003, Huaian, Jiangsu. P.R. China.

[Duration: 1st August 2021 to 31st July 2024.](#)

[Position: Associate Professor](#)

1. Teaching of Chemistry to undergraduate and postgraduate students.
2. Arrangement of Syllabus
3. Arrangement of Daily Lesson Plan for mentioning Calendar year
4. Arrangement of research projects for undergraduate and postgraduate students in polymer and environmental Chemistry.

- **Organization:** School of Chemistry and Chemical Engineering, Huaiyin Institute of Technology, 1 Meicheng road, 223003, Huaian, Jiangsu. P.R. China.

[Duration: 1st August 2017 to 31st July 2021.](#)

[Position: Assistant Professor](#)

Main responsibilities:

1. Teaching of Chemistry to undergraduate and postgraduate students.
2. Arrangement of Syllabus
3. Arrangement of Daily Lesson Plan for mentioning Calendar year
4. Arrangement of research projects for undergraduate and postgraduate students in polymer and environmental Chemistry.

- **Organization:** Bright Future International School & College, Doha Qatar.

[Duration: 18th October 2009 to 18th October 2012.](#)

[Position: Lecturer in Chemistry](#)

Head of Chemistry Department

Main responsibilities:

Teaching of Chemistry to A Level (Edexcel syllabus UK) and F.Sc Classes. Arrangement of Syllabus for AS and A2 Classes. Arrangement of Daily Lesson Plan for mentioning Calendar year and also to arrange their Practicals. Arrangement of research projects for AS and A2 students in the field of Chemistry,

● Organization: Oil and Gas Development Company Islamabad

Duration: 14th Jan 2008 to 18th November 2009.

Position: Assistant Chemist (Trainee)

Main responsibilities:

To analyze the physical parameters of crude oil and water like Specific Gravity, API Gravity, Vapour Pressure, Viscosity, Colour ASTM, Total Carbon content, Salt Content, Water Content, Flash Point, Pour Point, Sulphur content, Conradson Carbon residue etc using standard methods of API, IP and ASTM. And the use of advanced Instrument i.e GC- FID detector, HPLC-UV detector, Spectrophotometric methods like UV-Visible, FT-IR, and ¹H NMR for the Isolation of different constituents like benzene, toluene, Ethyl Benzene, Xylene, total aromatic hydrocarbons, poly Aromatic hydrocarbons and Heteroatomic sulphur, oxygen and nitrogen containing compounds. ● Organization:

Education Deptt: KPK Pakistan

Duration: 10th September 2005 to 14th Jan 2008.

Position: Subject Specialist in Chemistry

Main responsibilities:

Teaching of Chemistry to F.Sc Classes. Arrangement of Syllabus. Arrangement of Daily Lesson Plan for mentioned Calendar year and also to arrange their Practicals,

List of Journal as well as conference publications, Book Chapters and accepted Book titles.

1. Baoliang Zhang, Hepeng Zhang, Nisar Ali, Wang Chang Geng and Qiuyu Zhang. Preparation of flower like Co₃O₄/Fe₃O₄ magnetic microspheres for photodegradation of RhB under UV light. *Functional Materials Letters*, Vol. 6, No. 6 (2013) 1350052. (IF:2.490).

2014

2. Nisar Ali, Baoliang Zhang, Hepeng Zhang, Wajed Zaman, Wei Li, Qiuyu Zhanga,* Key synthesis of magnetic Janus nanoparticles using a modified facile method. *Particuology*, Volume 17, December 2014, Pages 59-65. (IF: 3.25).

2015

3. Nisar Ali, Baoliang Zhang, Hepeng Zhang, Wei Li, Wajed Zaman, Lei Tian, Qiuyu Zhang. Novel synthesis of Janus Magnetic nanoparticles and its Applications in the separation of water from heavy crude oil and water emulsion. *Fuel*, Volume 141, 1 February 2015, Pages 258-267. (IF:8.035)
4. Nisar Ali, Baoliang Zhang, Hepeng Zhang, Wei Li, Wajed Zaman, Zafar Ali, Qiuyu Zhang. Interfacially active and magnetically responsive composite nanoparticles with raspberry like structure, synthesis and its applications for heavy crude oil/water separation. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Volume 472, 5 May 2015, Pages 38-49. (IF:5.518)
5. Nisar Ali, Zhang Baoliang, Hepeng Zhang, Wajed Zaman, Sarmad Ali, Zafar Ali, Wei Li and Qiuyu Zhanga* Monodisperse and multifunctional magnetic composite core shell microspheres for demulsification applications *Journal of Chinese Chemical Society* 2015, 62, 695-702. (IF:1.967)
6. Nisar Ali, Zhang Baoliang, Hepeng Zhanga, Wajed Zamanb, Sarmad Ali, Zafar Alia, Wei Lia and Qiuyu Zhang. Iron oxide-based polymeric magnetic microspheres with a core shell structure: from control synthesis to demulsification applications. *Journal of Polymer research* (2015) 22:219. (IF:3.097)
7. Sarmad Ali, Wei Tian, Nisar Ali, Lingxiao Shi, Jie Kong, Nazakat Ali. Polymer Melts Flow through Nanochannels: from Theory, Fabrication to Application *RSC Advances* 20142 J. Name., 2014, 00, 1-3. (IF:4.036)
8. Wei Li, Yi Tian, Baoliang Zhang, Lei Tian, Xiangjie Li, Hepeng Zhang, Nisar Ali and Qiuyu

Zhang* Fabrication of Fe₃O₄@SiO₂@mSiO₂-HPG-COOH-Pd(0) Supported Catalyst and Its Performance in Catalyzing Suzuki Cross-Coupling Reaction. *New J. Chem.*, 2015,39, 2767-2777. (IF:3.925)

9. Baoliang Zhang, Hepeng Zhang, Lei Tian, Xiangjie Li, Wei Li, Xinlong Fan, Nisar Ali, Qiuyu Zhang. Magnetic Microcapsules with Inner Asymmetric Structure: Controlled Preparation, Mechanism, and Application to Drug Release. *Chemical Engineering Journal* 275 (2015) 235–244. (IF:16.744)
10. Tian, Lei; Zhao, Panpan; Ali, Zafar; Li, Ali, Nisar Xiangjie;; Zhang, Baoliang; Zhang, Hepeng; Zhang, Qiuyu. Micron-sized flower-like Fe₃O₄@GMA magnetic porous microspheres for lipase immobilization. *RSC Adv.*, 2015,5, 92449-92455. (IF:4.036)
11. Tian, Lei; Zhao, Panpan; Ali, Zafar; Li, Ali, Nisar Xiangjie;; Zhang, Baoliang; Zhang, Hepeng; Zhang, Qiuyu. Generalized Approach for Fabricating Monodisperse Anisotropic Microparticles via Single-hole Swelling PGMA Seed Particles . *Macromolecules*, 2015, 48 (20), pp 7592–7603. (IF:6.057).
12. Ali, Z., Tian, L., Zhao, P., Zhang, B., Nisar, Ali., Li, X., & Zhang, Q. Micron-sized flower-like Fe₃O₄@GMA magnetic porous microspheres for lipase immobilization. *RSC Advances* 2015, 5(112), 92449-92455. (IF:4.036)

2016

13. Xiangjie Li · Jingjing Zhou · Lei Tian · Wei Li · Zafar Ali · Nisar Ali · Baoliang Zhang · Hepeng Zhang · Qiuyu Zhang · Effect of crosslinking degree and thickness of thermosensitive imprinted layers on recognition and elution efficiency of protein imprinted magnetic microspheres. *Sensors and Actuators B* 225 (2016) 436–445. (IF: 9.221)
14. Baoliang Zhang · Peitao Li, Hepeng Zhang · Xiangjie Li · Jingjing Zhou · Lei Tian Xin Chen · Nisar Ali, Zafar Ali, Qiuyu Zhang. Red blood cell like BSA/Zn₃(PO₄)₂ hybrid nanoflowers: Preparation and application to adsorption of heavy metal ions. *Applied Surface Science* 366 (2016) 328–338. (IF: 7.392)
15. Baoliang Zhang · Peitao Li · Hepeng Zhang · Hai Wang · Xiangjie Li · Lei Tian · Nisar Ali · Zafar Ali · Qiuyu Zhang. Preparation of lipase/Zn₃(PO₄)₂ hybrid nanoflower and its catalytic performance as an immobilized enzyme *Chemical Engineering Journal* 291 (2016) 287–297. (IF:16.744)
16. Baoliang Zhang · Peitao Li · hepeng zhang · Lili Fan · Hai Wang · Xiangjie Li · Lei Tian · Nisar Ali · Zafar Ali · Qiuyu Zhang. Papain/Zn₃(PO₄)₂ Hybrid Nanoflower: Preparation, characterization and its enhanced catalytic activity as an immobilized enzyme. *RSC Adv.*, 2016,6, 46702-46710. (IF: 4.036)
17. Ali, Z., Tian, L., Zhao, P., Zhang, B., Ali, N., Khan, M., & Zhang, Q. Immobilization of lipase on mesoporous silica nanoparticles with hierarchical fibrous pore. *Journal of Molecular Catalysis B: Enzymatic* 2016, 134, 129-135. (IF:5.089)

2017

18. Zafar Ali, Lei Tian, Baoliang Zhang, Nisar Ali, Muhammad khan and Qiuyu Zhang Synthesis of paramagnetic dendritic silica nanomaterials with fibrous pore structure (Fe₃O₄@KCC-1) and their application in immobilization of lipase from *Candida rugosa* with enhanced catalytic activity and stability *New J. Chem.*, 2017,41, 8222-8231. (IF: 3.925).
19. Ali, Z., Tian, L., Zhang, B., Ali, N., Khan, M., & Zhang, Q. Synthesis of fibrous and non-fibrous mesoporous silica magnetic yolk–shell microspheres as recyclable supports for immobilization of *Candida rugosa* lipase. *Enzyme and Microbial Technology* 2017, 103, 42-52. (IF:3.705)

2018

20. Zafar Ali¹, Tian Li¹, Muhammad Khan², Nisar Ali and Qiuyu Zhang¹ IMMOBILIZATION OF LIPASE ON IRON OXIDE ORGANIC/INORGANIC HYBRID PARTICLES: A REVIEW ARTICLE *Rev.Adv.Mater. Sci.* 53 (2018) 106-117. (IF:5.028)

2019

21. Muhammad Shahzad Nazir, Ali Jafer Mahdi, Muhammad Bilal, Hafiz M Sohail, Nisar Ali, Hafiz Iqbal. Environmental impact and pollution-related challenges of renewable wind energy paradigm – A review. *Science of The Total Environment*, Volume 683, 20 April 2019,

Pages 436-444. (IF: (IF:10.753)

22. Nisar Ali, Hira Zaman, Muhammad Bilal, Anwar-ul-Haq Ali Shah, Muhammad Shahzad Nazir, Hafiz M.N.Iqbal. Environmental perspectives of interfacially active and magnetically recoverable composite materials – A review. *Science of The Total Environment*. Volume 670, 20 June 2019, Pages 523-538. (IF:10.753)
23. Hira Zaman, Nisar Ali, Anwar ul Haq Ali Shah, Xiaoyan Gao, Shizhong Zhang, Kun Hong, Muhammad Bilal. Effect of pH and salinity on stability and dynamic properties of magnetic composite amphiphilic demulsifier molecules at the oilwater interface. *Journal of Molecular Liquids* 290 (2019) 111186 26. (IF:6.633)
24. Shizhong Zhang, Peng Shen a, Ming Gec, Xiufang Zhu, Nisar Ali, Lijing Zhang b, Lingli Ni. Fabricating Fe₂TiO₅ hollow microspheres with enhanced visible light photocatalytic activity. 2019 *Mater. Res. Express* 6 095505. (IF:2.025)
25. Adnan Khan, Nisar Ali, Muhammad Bilal, Sumeet Malik, Syed Badshah and Hafiz M. N. Iqbal. Engineering Functionalized Chitosan-Based Sorbent Material: Characterization and Sorption of Toxic Elements. *Appl. Sci.* 2019, 9, 5138; doi:10.3390/app9235138. (IF:2.4).

2020

26. Nisar Ali, Hira Zaman, Wajed Zaman, Muhammad Bilal. Rheological properties, structural and thermal elucidation of coal-tar pitches used in the fabrication of multi-directional carbon-carbon composites. *Materials Chemistry and Physics* 242 (2020) 122564. (IF:4.778).
27. Nisar Ali, Muhammad Bilal, Adnan Khan, Farman Ali, Hafiz M. N. Iqbal. Effective exploitation of anionic, nonionic, and nanoparticle-stabilized surfactant foams for petroleum hydrocarbon contaminated soil remediation. *Science of the Total Environment* 704 (2020) 135391. (IF: (IF:10.753)
28. Nisar Ali, Adnan Khan, Muhammad Bilal, Sumeet Malik, Syed Badshah and Hafiz M. N. Iqbal. Chitosan-Based Bio-Composite Modified with Thiocarbonate Moiety for Decontamination of Cations from the Aqueous Media. *Molecules* 2020, 25, 226; doi:10.3390/molecules25010226. (IF:4.411)
29. Nisar Ali, Amir Said, Farman Ali, Fazal Raziq, Zarshad Ali, Muhammad Bilal, Laurence Reinert, Tasleem Begum, Hafiz M. N. Iqbal. Photocatalytic Degradation of Congo Red Dye from Aqueous Environment Using Cobalt Ferrite Nanostructures: Development, Characterization, and Photocatalytic Performance. *Water Air Soil Pollut* (2020) 231:50 <https://doi.org/10.1007/s11270-020-4410-8>. (IF:2.984)
30. Ikramullah, Nisar Ali, Farman Ali, Zeshan Ali Sheikh, Muhammad Bilal, Iftikhar Ahmad. Photocatalytic Performance of Zinc Ferrite Magnetic Nanostructures for Efficient Eriochrome Black-T Degradation from the Aqueous Environment under Unfiltered Sunlight. *Water Air Soil Pollut* (2020) 231:59. (IF: 2.894)
31. Nisar Ali, Muhammad Bilal, Muhammad Shahzad Nazir, Adnan Khan, Farman Ali, Hafiz M.N. Iqbal. Thermochemical and electrochemical aspects of carbon dioxide methanation: A sustainable approach to generate fuel via waste to energy theme. *Science of the Total Environment* 712 (2020) 136482. (IF:10.753)
32. Muhammad Shahzad Nazir, Nisar Ali, Muhammad Bilal, Hafiz Iqbal. Potential environmental impacts of wind energy development: A global perspective. *Current Opinion in Environmental Science & Health* 2020, 13:85–90. (IF:0.0)
33. Sahid Mehmood, Nisar Ali, Farman Ali, Fazal Haq, Muhammad Haroon and Shah Fahad. The Influence of Surface Modified Silica Nanoparticles: Properties of Epoxy Nanocomposites. *Z. Phys. Chem.* 2020; aop. (IF:2.04)
34. Nisar Ali, Adnan Khan, Shahid Nawaz, Muhammad Bilal, Sumeet Malik, Syed Badshah, Hafiz M.N.Iqbal. Characterization and deployment of surface-engineered chitosan-tri ethylene tetramine nanocomposite hybrid nano-adsorbent for divalent cations decontamination. *International Journal of Biological Macromolecules* 152 (2020) 663–671. (IF:8.025)
35. Aisha Aziz, Nisar Ali, Adnan Khan, Muhammad Bilal, Sumeet Malik, Nauman Ali, Hamayun Khan. Chitosan-zinc sulfide nanoparticles, characterization and their photocatalytic degradation

efficiency for azo dyes. *International Journal of Biological Macromolecules* 153 (2020) 502-512. (IF:8.025)

36. Farman Ali · Nisar Ali · Madiha Altaf · Amir Said · Syed Sakhawat Shah · Muhammad Bilal. Epoxy Polyamide Composites Reinforced with Silica Nanorods: Fabrication, Thermal and Morphological Investigations. *Journal of Inorganic and Organometallic Polymers and Materials*. 30, (2020), 3869–3877. <https://doi.org/10.1007/s10904-020-01518-5>. (IF:3.543)
37. Hamayun Khan, Iram1, Kashif Gul, Behisht Ara, Adnan Khan, Nauman Ali, Nisar Ali*, Muhammad Bilal. Adsorptive removal of acrylic acid from the aqueous environment using raw and chemically modified alumina: Batch adsorption, kinetic, equilibrium and thermodynamic studies. *Journal of Environmental Chemical Engineering* 8 (2020) 103927. (IF: 7.968).
38. Seema Sartaj; Nisar Ali; Adnan Khan; Sumeet Malik; Muhammad Bilal; Menhad Khan; Nauman Ali; Sajjad Hussain; Hammad Khan; Sabir Khan Performance evaluation of photocatalytic and electrochemical oxidation processes for enhanced degradation of food dyes laden wastewater. *Water Sci Technol* (2020) 81 (5): 971–984. <https://doi.org/10.2166/wst.2020.182> (IF:2.430)
39. Xiaoyan Gao, Muhammad Bilal, Nisar Ali, Shan Yun, Jinquan Wang, Lingli Ni, and Peng Cai. Two-dimensional nanosheets functionalized water-borne polyurethane nanocomposites with improved mechanical and anti-corrosion properties. *Journal of Inorganic and Nano-Metal Chemistry* 50, 2020. 12, 1358-1366 (IF: 1.514)
40. Nisar Ali, Muhammad Bilal, Adnan Khan, Farman Ali, Hafiz M.N. Iqbal, Design, engineering and analytical perspectives of membrane materials with smart surfaces for efficient oil/water separation. *Trends in Analytical Chemistry* 127 (2020) 115902. (IF:14.908)
41. Nisar Ali, Adnan Khan, Sumeet Malik, Syed Badshah, Muhammad Bilal, Hafiz M.N.Iqbal. Chitosan-based green sorbent material for cations removal from an aqueous environment. *Journal of Environmental Chemical Engineering* 8 (2020) 104064. (IF: 7.968)
42. Nisar Ali, Muhammad Bilal, Adnan Khan, Farman Ali, Yong Yang, Mujeeb Khan, Syed Farooq Adil, Hafiz M.N. Iqbal. Dynamics of oil-water interface demulsification using multifunctional magnetic hybrid and assembly materials. *Journal of Molecular Liquids* 312 (2020) 113434. (IF: IF:6.633)
43. Nisar Ali, Amir Said Farman Ali Muzafar Khan Zeshan Ali Sheikh and Muhammad Bilal. Development and Characterization of Functionalized Titanium Dioxide-Reinforced Sulfonated Copolyimide (SPI/TiO₂) Nanocomposite Membranes with Improved Mechanical, Thermal, and Electrochemical Properties. *Journal of Inorganic and Organometallic Polymers and Materials*. 30, 4 (2020) 585–596 <https://doi.org/10.1007/s10904-020-01636-0>. (IF: 3.518)
44. Nisar Ali, Farman Ali, Ikram Ullah, Zarshad Ali, Laurent Duclaux, Laurence Reinert, Jean Marc L'évêque, Amjad Farooq, Muhammad Bilal, Iftikhar Ahmad. Organically modified micron-sized vermiculite and silica for efficient removal of Alizarin Red S dye pollutant from aqueous solution. *Environmental Technology & Innovation* 19 (2020) 101001. (IF:7.758)
45. Nisar Ali, Farman Ali, Romana Farooq, Amir Said, Shaukat Saeed and Muhammad Bilal. Photo-oxidative degradation of organo-functionalized vermiculite clay-reinforced polyimide composites. *Applied Nanoscience* 10, (2020), 3725–3733 <https://doi.org/10.1007/s13204-020-01514-8>. (IF:3.674)
46. Pengfei Duan, Suliman Khan, Nisar Ali, Muhammad Adnan Shereen, Rabeea Siddique, Barkat Ali, Hafiz M.N. Iqbal, Ghulam Nabi, Wasim Sajjad, Muhammad Bilal. Biotransformation fate and sustainable mitigation of a potentially toxic element of mercury from environmental matrices. *Arabian Journal of Chemistry*. 13 (2020)9, 6949-6965. <https://doi.org/10.1016/j.arabjc.2020.06.041>. (IF:5.165)
47. Farman Ali, Nisar Ali, Madiha Altaf, Amir Said, Syed Sakhawat Shah, Muhammad Bilal. Epoxy Polyamide Composites Reinforced with Silica Nanorods: Fabrication, Thermal and Morphological Investigations. *Journal of Inorganic and Organometallic Polymers and Materials*. 30, (2020) 3869–3877. <https://doi.org/10.1007/s10904-020-01518-5>. (IF: 3.543)
48. Nisar Ali, Shehzad Ahmad, Adnan Khan, Saraf Khan, Muhammad Bilal, Salah Ud Din, Nauman Ali, Hafiz M. N. Iqbal, and Hammad Khan. Selenide-chitosan as high-performance nano photocatalyst for accelerated degradation of Pollutants. *Chemistry - An Asian Journal*. 1, 2020, 2660-2673. [10.1002/asia.202000597](https://doi.org/10.1002/asia.202000597). (IF:4. 568)

49. Nisar Ali, Salah Uddin, Adnan Khan, Saraf Khan, Sana Khan, Nauman Ali, Hamayun Khan, Hammad Khan, Muhammad Bilal. Regenerable chitosan-bismuth cobalt selenide hybrid microspheres for mitigation of organic pollutants in an aqueous environment. *International Journal of Biological Macromolecules* 161 (2020) 1305–1317. (IF:8.025)
50. Nisar Ali, Farman Ali, Rafaqat Khurshid, Ikramullah, Zarshad Ali, Adeel Afzal, Muhammad Bilal, Hafiz M. N. Iqbal, Iftikhar Ahmad. TiO₂ Nanoparticles and Epoxy-TiO₂ Nanocomposites: A Review of Synthesis, Modification Strategies, and Photocatalytic Potentialities. *Journal of Inorganic and Organometallic Polymers and Materials*. 30, 4829–4846(2020) <https://doi.org/10.1007/s10904-020-01668-6>. (IF: 3.543)
51. Nisar Ali, Farman Ali, Amir Said, Tasleem Begum, Muhammad Bilal, Abdur Rab, Zeeshan Ali Sheikh, Hafiz M. N. Iqbal, Iftikhar Ahmad. Characterization and Deployment of Surface-Engineered Cobalt Ferrite Nanospheres as Photocatalyst for Highly Efficient Remediation of Alizarin Red S Dye from Aqueous Solution. *Journal of Inorganic and Organometallic Polymers and Materials* volume 30, pages5063–5073 (2020).<https://doi.org/10.1007/s10904-020-01654-y>. (IF: 3.543).
52. Arif Nawaz, Adnan Khan, Nisar Ali, Nauman Ali, Muhammad Bilal. Fabrication and characterization of new ternary ferrites-chitosan nanocomposite for solar-light driven photocatalytic degradation of a model textile dye. *Environmental Technology & Innovation* 20 (2020) 101079. (IF:7.758).
53. Idrees Khan, Khalid Saeed, Nisar Ali, Ibrahim Khan, Baoliang Zhang, Muhammad Sadiq. Heterogeneous Photodegradation of Industrial Dyes: An Insight to Different Mechanisms and Rate Affecting Parameters. *Journal of Environmental Chemical Engineering*. S2213-3437(2020)30713-2. (IF: 7.968).
54. Farman Ali, Nisar Ali, Iram Bibi, Amir Said, Shahid Nawaz, Zarshad Ali, Syed Muhammad Salman, Hafiz M.N. Iqbal, Muhammad Bilal. Adsorption isotherm, kinetics and thermodynamic of acid blue and basic blue dyes onto activated charcoal. *Case Studies in Chemical and Environmental Engineering* 2 (2020) 100040. (IF:0.0)
55. Shakeel Zeb, Nisar Ali, Zarshad Ali, Muhammad Bilal, Bushra Adalat, Sajjad Hussain, Saima Gul, Farman Ali, Rashid Ahmad, Sabir khan, Hafiz M.N. Iqbal. Silica-based nanomaterials as designer adsorbents to mitigate emerging organic contaminants from water matrices. *Journal of Water Process Engineering* 38 (2020) 101675. (IF:5.485)
56. Nisar Ali, Muhammad Bilal, Adnan Khan, Farman Ali, Hamayun Khan, Hassnain Abbas Khan, Kashif Rasool, Hafiz M.N. Iqbal. Understanding the hierarchical assemblies and oil/water separation applications of metal-organic frameworks. *Journal of Molecular Liquids*.13, 9 2020, 114273. (IF: 6.633)
57. Nisar Ali, Farman Ali, Shaukat Saeed, Syed Sakhawat Shah, Muhammad Bilal, “Structural Characteristics and Electrochemical Properties of Sulfonated Polyimide Clay Based Composite Fabricated by a Solution Casting Method” *Journal of Materials Science: Materials in Electronics*, 30, (2019)19164–19172. <https://doi.org/10.1007/s10854-019-02273-1>. (IF:2.478).
58. Farman Ali, Saira Bibi, Nisar Ali , Zarshad Ali , Amir Said , Zain Ul Wahab , Muhammad Bilal , Hafiz M.N. Iqbal. Sorptive removal of malachite green dye by activated charcoal: Process optimization, kinetic, and thermodynamic evaluation. *Case Studies in Chemical and Environmental Engineering* 2 (2020) 100025. <https://doi.org/10.1016/j.csee.2020.100025>.
59. Yong Yang, Farman Ali, Amir Said, Nisar Ali, Sohrab Ahmad, Fazal Raziq, Sajid Khan. Fabrication, mechanical, and electromagnetic studies of cobalt ferrite based-epoxy nanocomposites. *Polymer Composites*. 2020;1–12. DOI: 10.1002/pc.25824. (IF:3.531).
60. Y. Yang, N. Ali, M. Bilal, et al., Robust membranes with tunable functionalities for sustainable oil/water separation, *Journal of Molecular Liquids* 321(2020), 114701, <https://doi.org/10.1016/j.molliq.2020.114701>. (IF:6.633).

2021

61. N. Ali, M. Bilal, A. Khan, F. Ali, M. Nasir Mohamad Ibrahim, X. Gao, S. Zhang, K. Hong, H. M. N. Iqbal, Engineered Hybrid Materials with Smart Surfaces for Effective Mitigation of Petroleumoriginated Pollutants, *Engineering* 7, Issue 10, October 2021, 1492-1503, doi: <https://doi.org/10.1016/j.eng.2020.07.024>. (IF:7.553).

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14. Adnan Khan, Sumeet Malik, Sumaira Shah, Nisar Ali, Farman Ali, Muhammad Bilal. Nanoadsorbents for environmental remediation. **Published in** in Book edition. Nanotechnology for environmental remediation- Wiley book
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18. Manahil Bakhtiar, Farman Ali, Nisar Ali, Syed Sakhwat Shah, Muhammad Bilal. Graphene-Based 2D Nanomaterials for Fuel Cells. **Book Energy**. eBook ISBN9781003178422.
19. Adnan Khan, Sumeet Malik, Nisar Ali, and Muhammad Bilal. Electrospun cellulose nanofiber composites. Cellulose Fibre Reinforced Composites. <https://doi.org/10.1016/B978-0-323-90125-3.00013-6>.
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21. Idrees Khan, Ibrahim Khan, Khalid Saeed, Nisar Ali, Noor Zada, Adnan Khan, Farman Ali, Muhammad Bilal and Mohammed Salim Akhter. Polymer nanocomposites: an overview. Smart Polymer Nanocomposites. DOI: <https://doi.org/10.1016/B978-0-323-91611-0.00017-7>.
22. Nafeesa Sarfraz, Ibrahim Khan, Idrees Khan, Muhammad Ashraf, Muhammad Ayaz, Khalid Saeed, Nisar Ali and Muhammad Bilal. Magnetic iron oxide nanocomposites: types and biomedical applications. Smart Polymer Nanocomposites. DOI: <https://doi.org/10.1016/B978-0-323-91611-0.00020-7>.
23. Khalid Saeed, Idrees Khan, Ibrahim Khan, Nisar Ali, Muhammad Bilal and Mohammed Salim Akhter. Graphene and carbon nanotubes-based polymer nanocomposites. Smart Polymer Nanocomposites. DOI: <https://doi.org/10.1016/B978-0-323-91611-0.00007-4>.
24. Manahil Bakhtiar, Farman Al, Nisar Ali, Shaukat Saeed, Mohammad Mansoob Khan, Sami Rtimi, Pau Loke Show and Muhammad Bilal. Silica-based polymer nanocomposites and their biomedical applications. Smart Polymer Nanocomposites. DOI: <https://doi.org/10.1016/B978-0-323-91611-0.00006-2>.
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Google Scholar: <https://scholar.google.com/citations?user=4DTdw7gAAAAJ&hl=en>

Research gate: <https://www.researchgate.net/profile/Nisar-Ali-3>.

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Courses taught

1. Fundamentals of Quantitative Analysis and Separation Methods
2. Atmospheric Chemistry
10. Environmental monitoring And environmental impact assessment.
11. Colloid and surfaces
12. Advanced Instrumental Analysis
13. Organic Chemistry (Chemical Engineering students)
14. Physical Chemistry (Chemical Engineering students)

National and International collaborations

i. **Prof. Dr. Adna Khan**, University of Peshawar
Email: adnankhan@uop.edu.pk

ii. **Prof. Dr. Farman Ali**, University of Hazara,
Email: farmanaliqau@yahoo.com

iii. Professor **Dr. Ahmed Muhamad**, Sharjah University,
Email: ah.mohamed@sharjah.ac.ae

iv. **Professor Dr. Hafiz M.N. Iqbal**, Tecnologico de Monterrey, School of Engineering and Sciences, Monterrey 64849, Mexico,
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v. **Prof. Dr. Mohammad Bilal**, School of Life Science and Food Engineering, Huaiyin Institute of Technology, Huaian 223003, China.
Email: bilaluaf@hotmail.com

Research Students Produced

Ph.D student

1. **Hira Zaman: Super hydrophilic magnetic composite NPs from design, synthesis to demulsification application.**
2. **Sumeet Malik: Research in progress**

Master students

New master students

- i. **Ahamefule George Chisom** 陈孝默
- ii. **Walter Dzumbira** (王尔德)
- iii. **Victor Lombe Kangwa** 维克多
- iv. **Cao Zhou** (Fabrication of Flower-like Fe_3O_4 @GMA magnetic porous nanoparticles through a hydrothermal method followed by precipitation Polymerization) **2021.**
- v. **Ye Wenjie** (Synthesis of mesoporous silica magnetic core shell microspheres and their application for efficient removal of Methylene Blue from aqueous media)

BS students

New BS students

- i. **Yahya Mohammad**
- ii. **Abdur Raziq:** Cellulose/inorganic functionalized bio-nanocomposites for the mitigation of emerging pollutants
- iii. **Ange:** Analytical perspective and environmental remediation potentialities of magnetic composite Nano sorbents

- iv. **Beth Bloom:** Polymer functionalized nano-composited, from functionalization to environmental applications
- v. **Arman Rafay:** Magnetic polymer composites; synthesis to oil, water separation applications
- vi. **Walter Dzumbira:** MOF-Polymer composites: Tailored Architectures and applications
- vii. **Jackson:** Magnetic nanobio sorbent for the insight water remediation application
- viii. **Lionnelle:** Wettability of bio inspired materials for separation and purification applications.
- ix. **Jacinta:** Synthesis and application of Magnetic nanoparticles for oil water separation
- x. **Olayiwola Rashidat Funmilayo:** **Synthesis and properties of Chitosan-based biosorbents.** (.olayiwola.rashidat.9@gmail.com)
- xi. **MAHAMUDUL HASAN:** Recent applications of magnetic composites as extraction adsorbents for determination of environmental pollutants
- xii. **SAHINUR RAHMAN::** **Synthesis and basic principles of nanobiosorbents for contaminant removal.**
- xiii. **VANESSA:** **Synthesis and properties of cellulose-based nanobiosorbents.** (Chansa Kayeye Vanessa. vanessachansa2017@gmail.com)

Scientific Contribution as Reviewer

- i. Separation and Purification Technology
- ii. Angewandte Chemie International Edition in English
- iii. Environmental Science and Pollution Research
- iv. RSC Advances
- v. Catalysis Letters
- vi. Journal of Polymer Research
- vii. Transport in Porous Media
- viii. Optics & Laser Technology
- ix. Chemistry Select
- x. ChemCatChem
- xi. SN Applied Sciences SNAS
- xii. Journal of radiation research and applied Sciences
- xiii. FlatChem
- xiv. Chemistry - An Asian Journal
- xv. Science of The Total Environment
- xvi. Journal of Nanostructure in Chemistry
- xvii. Biotechnology Letters
- xviii. Applied Petrochemical Research
- xix. PhD thesis, Mr. Idrees Khan, Bacha Khan University KPK Pakistan
- xx. PhD Thesis, Ms. Falak Naz, Bacha Khan University KPK Pakistan

References:

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