

# Dr. Muhammad Faizan Nazar



## Professional Information

Coordinator/Associate Professor  
Department of Chemistry, Division of Sciences & Technology  
University of Education, Lahore (Multan Campus), Pakistan  
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## Personal Information

House # 115, Block C, Housing Colony-II, Layyah  
Married (No. of Kids: 3)

## Area of Specialization

Physical Chemistry: Colloids and Nanochemistry

## Professional and Research Experience

I have a high international reputation in the fields of colloid and interface science and to date I have published **114 research article** with **citation = 3035**, **h-index = 30**, total **impact factor = 461.076**. Till date, I have supervised **4 PhD** and **22 MPhil** students.

<b>18 Oct. 2009– 17 Apr. 2010</b>	Research Collaborator, School of Chemistry, University of Bristol, UK.
<b>15 May 2011 – 27 June 2011</b>	Visiting Teacher, Department of Chemistry, University of Sargodha, Sargodha, Pakistan.
<b>14 July 2011 –15 Mar. 2012</b>	Assistant Professor, Department of Chemistry, University of Sargodha, Sargodha, Pakistan
<b>16 Mar. 2012– 05 Nov. 2020</b>	Assistant Professor, Department of Chemistry, University of Gujrat, Gujrat, Pakistan
<b>06 Nov. 2020– To date</b>	Associate Professor, Department of Chemistry, University of Education, Lahore (Multan Campus), Pakistan
<b>21 Jan. 2021– To date</b>	Coordinator, Department of Chemistry, University of Education, Lahore (Multan Campus), Pakistan

## Academic Qualifications

Year	Certificate/Degree	Discipline/Field	Board/University	%/Div.
1999	Matric	Science	BISE Sargodha	77.1/1 <sup>st</sup>
2001	F.Sc.	Pre-engineering	FBISE Islamabad	69.5/1 <sup>st</sup>
2003	B.Sc	Pre-engineering	University of Sargodha	68.6/1 <sup>st</sup>
2005	M.Sc	Physical Chemistry	Quaid-i-Azam University	74.9/1 <sup>st</sup>
2007	M.Phil	Physical Chemistry	Quaid-i-Azam University	75.0/1 <sup>st</sup>
2011	PhD	Physical Chemistry	Quaid-i-Azam University	Degree awarded

**PhD Thesis:** *Microemulsions for the Encapsulation of Drugs and Recovery of Metal Nanoparticles*

**MPhil Thesis:** *Electrostatic and Hydrophobic Interactions in Dye-Surfactant Aggregates*

## Project Awarded

- The project entitled “Pharmaceutical formulation of colloidal microemulsions as futuristic carriers of potent bioactive drugs through biomembranes” granted by HEC Pakistan of 5.94 Millions. (as PI)
- The project entitled “Designing and fabrication of smart hydrogels for controlled drug delivery” awarded by HEC Pakistan of 3.99 Millions (HEC/R&D/NRPU/2017/8796). (as PI)

- The project entitled “Development of Microemulsified-Gels as Smart-Permeators Across Biological Barriers for Topical Drug Delivery” approved by HEC Pakistan of 4.2 Millions (reference # 20-17321/NRPU/R&D/HEC/2021 2021). (as PI)
- The project entitled “Smart polymeric nanocatalysts for performing/controlling the catalytic degradation reactions of noxious aqueous pollutants” submitted to Deanship of Scientific Research at King Saud University Saudi Arabia. (as Consultant)

### **Awards**

- Awarded indigenous scholarship for PhD 2007-2011, HEC, Pakistan.
- Awarded IRSIP scholarship for PhD 2009-2010, HEC, Pakistan.
- Research Productivity Award 2011-12, Pakistan Council for Science and Technology.
- Research Productivity Award 2012-13, Pakistan Council for Science and Technology.
- First Position in Research Publication @ Research Award 2017, University of Gujrat.
- Third Position in Thomson Reuters Impact Factor @ Research Award 2017, University of Gujrat.
- Invited Lecture, Koblenz, Germany supported by European Cooperation in Science and Technology under COST Action ES1205, Feb 16, 2016

### **Travel Grants**

- Approval of Travel Grant (Rs. 226,240) from HEC-Pakistan for 6<sup>th</sup> Asian Conference on Colloid and Interface Science (ACCIS2015) on November 24-27, 2015 in Arkas Sasebo, Sasebo, Japan (Due to visa issuance I was unable to attend this conference).
- Invited Lecture “Cloud point extraction of nanoparticles” at one day International Workshop: cloud point extraction (CPE) and engineered nanomaterials in environmental matrices, held at Department G2-Aquatic Chemistry, Federal Institute of Hydrology, Koblenz, Germany, 16<sup>th</sup> February 2016, supported by COST (European Cooperation in Science and Technology, COST Action ES1205)-fully funded.
- Approval of Travel Grant (Rs. 326,294) from PHEC-Pakistan for International Symposium on Solubility Phenomena and Related Equilibrium Processes (ISSP-18) on July 15-20, 2018 at Hôtel Oceania l’Univers, Tours, France.

### **Research Expertise/Field of Research**

- **“Colloidal fluids (Microemulsions, Hydrogels, Micelles) as drug carriers and nanoreactors”**

Microfluid is an area of research where a huge development is required in terms of diversity of its applications in different commercial applications. Microfluids are colloidal self-assembly fluids function as nanoreactors that provide extensive applications for the evolution of pharmaceuticals and clinical science as well as nanoparticles technology in biomedicine, nanoelectronics and catalysis. Because of their low interfacial tension and small particle size, the internalization of these microemulsion-based nanodroplets by target cancer cells may be further facilitated by fusion with cancer cell membrane.

- **“Adsorption (wastewater treatment)”**

Adsorption process is an innovative and economical alternative due to its performance and ease of operation. The target pollutant accumulates at the surface/interface of the adsorbent in aqueous medium. Clays/Organoclays based adsorbents have also emerged as promising adsorbents for wastewater treatment. Clays possess certain properties, which make them an ultimate choice for adsorption process such as low cost, high availability, and environmentally friendly material.

### **Potential Reviewer of International Journals**

- |   |   |
|---|---|
| 1. Journal of Colloid and Interface Science                         | 14. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy |
| 2. Journal of Molecular Liquids                                     | 15. Energy Conversion and Management                                    |
| 3. Journal of Molecular Structure                                   | 16. Coloration Technology   |
| 4. Energy & Fuels   | 17. Journal of Surfactants and Detergents                               |
| 5. Colloids and Surfaces A: Physicochemical and Engineering Aspects | 18. Chemistry Central Journal   |
| 6. Colloids and Surfaces B: Biointerfaces                           | 19. Reactive and Functional Polymers                                    |
| 7. Materials Today: Proceedings                                     | 20. Colloid and Interface Science Communications                        |
| 8. The Journal of Physical Chemistry                                | 21. Applied Organometallic Chemistry                                    |
| 9. Analytical and Bioanalytical Chemistry                           | 22. Results in Chemistry  |
| 10. Environmental chemistry letters                                 | 23. Materials Science for Energy Technologies                           |
| 11. ChemistrySelect   | 24. Asia-Pacific Journal of Chemical Engineering.                       |
| 12. Food Chemistry  | 25. Green Processing and Synthesis                                      |
| 13. International Journal of Environmental Analytical Chemistry     |   |

### **Publications in International Journals (since 2008)**

The publications have been in high quality international journals (Total impact factor = **461.076**).

#### **2008**

1. A. Shah, A.M. Khan, R. Qureshi, F.L. Ansari, **M.F. Nazar**, S.S. Shah. "*Redox behavior of anticancer chalcone at glassy carbon electrode and evaluation of its interaction parameters with DNA*". International Journal of Molecular Sciences 9, (2008), 1424-1434. (IF = 6.208)

#### **2009**

2. **M.F. Nazar**, A.M. Khan, S.S. Shah. "*Microemulsion system with improved loading of piroxicam: A study of microstructure*". American Association of Pharmaceutical Scientists (AAPS PharmSciTech) 10, (2009), 1286-1294. (IF = 4.026)

#### **2010**

3. O. Myakonkaya, Z. Hu, **M.F. Nazar**, J. Eastoe. "*Recycling functional colloids and nanoparticles*". Chemistry-A European Journal 16, (2010), 11784-11790. (IF = 5.020)
4. **M.F. Nazar**, A.M. Khan, S.S. Shah. "*Association behavior of 3,4-dihydroxy-9,10-dioxo-2-anthracenesulfonic acid sodium salt in cationic surfactant medium under different pH conditions*". Journal of Dispersion Science and Technology 31, (2010), 596-605. (IF = 2.042)
5. **M.F. Nazar**, S.S. Shah, M.A. Khosa. "*Interaction of azo dye with cationic surfactant under different pH conditions*". Journal of Surfactants and Detergents 13, (2010), 529-537. (IF = 1.972)

6. A. Badshah, S. Nawaz, **M.F. Nazar\***, S.S. Shah, A. Hasan. "Synthesis of novel fluorescent cyclohexenone derivatives and their partitioning study in ionic micellar media" *Journal of Fluorescence* 20, (2010), 1049-1059. (IF = 2.525)
7. F. Gul, A.M. Khan, S.S. Shah, **M.F. Nazar**. "Spectroscopic study of the binding of alizarin red s with cetyltrimethylammonium bromide at low concentrations and the effect of temperature". *Coloration Technology* 126, (2010), 109-113. (IF = 2.049)
8. A. Shah, M. Zaheer, R. Qureshi, Z. Akhthar, **M.F. Nazar**. "Voltammetric and spectroscopic investigations of 4-nitrophenylferrocene interacting with DNA". *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 75, (2010), 1082-1087. (IF = 4.831)

### 2011

9. **M.F. Nazar**, O. Myakonkaya, S.S. Shah. J. Eastoe. "Separating nanoparticles from microemulsions". *Journal of Colloid and Interface Science* 354, (2011), 624-629. (IF = 9.965)
10. **M.F. Nazar**, S.S. Shah, M.A. Khosa. "Microemulsions in enhanced oil recovery: a review". *Petroleum Science and Technology* 29, (2011), 1353-1365. (IF = 1.695)
11. **M.F. Nazar**, S.S. Shah. J. Eastoe, A.M. Khan, A. Shah. "Separation and recycling of nanoparticles using cloud point extraction with non-ionic surfactant mixtures". *Journal of Colloid and Interface Science* 363, (2011), 490-496. (IF = 9.965)
12. M.A. Khosa, S.S. Shah, **M.F. Nazar**. "Application of micellar enhanced ultrafiltration for the removal of methylene blue from aqueous solution". *Journal of Dispersion Science and Technology* 32, (2011), 260-264. (IF = 2.042)
13. N.A. Kizilbash, S. Asif, **M.F. Nazar**, S.S. Shah, D. Alenizi. "Design of a microemulsion-based drug delivery system for diclofenac sodium". *Journal of the Chemical Society of Pakistan* 33, (2011), 1-6. (IF = 0.698)
14. M.A. Khosa, S.S. Shah, **M.F. Nazar**. "UV-Visible spectrometric study and micellar enhanced ultrafiltration of alizarin red s dye". *Journal of Dispersion Science and Technology* 32, (2011), 1634-1640. (IF = 2.042)

### 2013

15. M.S.U. Rehman, M. Munir, M. Ashfaq, N. Rashid, **M.F. Nazar**, M. Danish, J-I. Han. "Adsorption of brilliant green dye from aqueous solution onto red clay". *Chemical Engineering Journal* 228, (2013) 54-62. (IF = 16.744)
16. K.S. Ahmad, N. Rashid, **M.F. Nazar**, S. Tazaiyen. "Adsorption and desorption characteristic of benzimidazole based fungicide carbendazim in Pakistani soils". *Journal of the Chemical Society of Pakistan* 35, (2013), 1017-1024. (IF = 0.698)
17. M.I. Abdullah, M.R.S.A. Janjua, **M.F. Nazar**, A. Mahmood. "Quantum chemical designing of efficient *tc4* based sensitizers by modification of auxiliary donor and *pi*-spacer". *Bulletin of the Chemical Society of Japan* 86, (2013), 1272-1281. (IF = 5.121)

### 2014

18. **M.F. Nazar\***, S. Murtaza. "*Physicochemical investigation and spectral properties of sunset yellow dye in aqueous micellar solution under different pH conditions*". *Coloration Technology* 130, (2014), 191-199. (IF = 2.049)
19. **M.F. Nazar\***, M. Raheel, S.S. Shah, M. Danish, M. Ashfaq, M.N. Zafar, M. Siddiq. "*Thermodynamic characteristics and spectral-luminescent properties of N-m-tolylbenzamide in microheterogeneous surfactant self-assemblies*". *Journal of Solution Chemistry* 43, (2014), 632-647. (IF = 2.000)
20. A. Mahmood, M.I. Abdullah, **M.F. Nazar**. "*Quantum chemical designing of novel organic non-linear optical compounds*". *Bulletin of the Korean Chemical Society* 35, (2014), 1391-1396. (IF = 1.241)
21. A. Badshah, **M.F. Nazar\***, A. Mahmood, W. Ahmed, M.I. Abdullah, M.N. Zafar, U.A. Rana. "*Synthesis, characterization of novel cyclohexenone derivatives and computation of their optical response*". *Journal of Molecular Structure* 1071, (2014), 103-110. (IF = 3.841)
22. M.R.S.A. Janjua, A. Mahmood, **M.F. Nazar**, Zhihua Yang, Shilie Pan. "*Electronic absorption spectra and nonlinear optical properties of ruthenium acetylide complexes: a DFT study toward the designing of new high NLO response compounds*". *Acta Chimica Slovenica* 61 (2014) 382-390. (IF = 1.524)
23. M.N. Zafar, M.A. Mohsin, M. Danish, **M.F. Nazar**, S. Murtaza. "*Palladium catalyzed heck-mizoroki and suzuki-miyaura coupling reactions (review)*". *Russian Journal of Coordination Chemistry* 40 (2014) 781-800. (IF = 1.814)
24. M. Ashfaq, T. Akhtar, G. Mustafa, M. Danish, S.N. Razzaq, **M.F. Nazar**. "*Simultaneous estimation of rosuvastatin and amlodipine in pharmaceutical formulations using stability indicating HPLC method*". *Brazilian Journal of Pharmaceutical Sciences* 50 (2014) 629-638. (IF = 1.214).
25. **M.F. Nazar\***, F. Mukhtar, S. Chaudry, M. Ashfaq, S. Mehmood, A. Asif, U.A. Rana. "*Biophysical probing of antibacterial gemifloxacin assimilated in surfactant mediated molecular assemblies*". *Journal of Molecular Liquids* 200 (2014) 361-368. (IF = 6.633)

#### 2015

26. **M.F. Nazar\***, S. Murtaza, B. Ijaz, M. Ashfaq, M.A. Mohsin. "*Photophysical investigations of Carmoisine interacting with conventional cationic surfactants under different pH conditions*". *Journal of Dispersion Science and Technology* 36 (2015) 18-27. (IF = 2.042).
27. **M.F. Nazar\***, M.I. Abdullah, A. Badshah, A. Mahmood, S.D. Khan, U.A. Rana. "*Synthesis, structure-activity relationship and molecular docking of cyclohexenone based analogous as potent non-nucleoside reverse-transcriptase inhibitors*". *Journal of Molecular Structure* 1086 (2015) 8-16. (IF = 3.841)
28. M. Ashfaq, A. Aslam, M. Danish, G. Mustafa, **M.F. Nazar**, M.N. Asghar. "*Derivatization/chromophore introduction of tranexamic acid and its HPLC determination in pharmaceutical formulations*". *Journal of the Association of Arab Universities for Basic and Applied Sciences* 17 (2015) 51-56. (IF = ---)
29. W. Ahmed, **M.F. Nazar\***, S.D. Ali, U.A. Rana, S.D. Khan. "*Detailed investigation of optimized alkali catalyzed transesterified Jatropha oil*". *Journal of Energy Chemistry* 24 (2015) 331-336. (IF = 13.599)

30. A. Mahmood, S.D. Khan, U.A. Rana, M.R.S.A. Janjua, M.H. Tahir, **M.F. Nazar**, Y. Song. “Effect of thiophene rings on UV/visible spectra and non-linear optical (NLO) properties of triphenylamine based dyes: A quantum chemical perspective”. *Journal of Physical Organic Chemistry* 28 (2015) 418-422. (IF = 2.155)
31. **M.F. Nazar\***, F. Mukhtar, M. Ashfaq, H.M.A. Rahman, M.N. Zafar, S.H. Sumrra. “Physicochemical investigation of antibacterial moxifloxacin interacting with quaternary ammonium disinfectants”. *Fluid Phase Equilibria* 406 (2015) 47-54. (IF = 2.745)
32. **M.F. Nazar\***, M. Abid, M. Danish, M. Ashfaq, A.M. Khan, M.N. Zafar, S. Mehmood, A. Asif. “Impact of l-leucine on controlled release of ciprofloxacin through micellar catalyzed channels in aqueous medium”. *Journal of Molecular Liquids* 212 (2015) 142-150. (IF = 6.633)
33. **M.F. Nazar**, S. Murtaza, A.M. Khan, S.S. Shah, N. Asghar, A. Mahmood. “Spectral-luminescent properties of pH-sensitive azo fluorophore in complexes with quaternary ammonium disinfectants”. *Colloid and Polymer Science* 293 (2015) 3145-3156. (IF = 2.434)

### 2016

34. **M.F. Nazar\***, A. Badshah, A. Mahmood, M.N. Zafar, M.R.S.A. Janjua, M.A Raza, R Hussain. “Synthesis, spectroscopic characterization and computed optical analysis of green fluorescent cyclohexenone derivatives”. *Journal of Physical Organic Chemistry* 29 (2016) 152-160. (IF = 2.155)
35. M.N. Zafar, A.H. Atif, **M.F. Nazar**, S.H. Sumrra, G. Saba, R, Paracha. “Pyridine and related ligands in transition metal homogeneous catalysis”. *Russian Journal of Coordination Chemistry* 42 (2016) 1-18. (IF = 1.814)
36. M. Ashfaq, K.N. Khan, S. Rasool, G. Mustafa, M.S.U. Rehman, **M.F. Nazar**, Q. Sun, C.P. Yu. “Occurrence and ecological risk assessment of fluoroquinolone antibiotics in hospital waste of Lahore Pakistan”. *Environmental Toxicology and Pharmacology* 42 (2016) 16-22. (IF = 5.785)
37. M.N. Zafar, **M.F. Nazar**, S.H. Sumrra, G. Saba, A. Yasmin, A.H. Atif. “Development of Some Important Nitrogen Donor Ligands for Transition Metal Homogeneous Catalysis”. *Russian Journal of Coordination Chemistry* 42 (2016) 225-251. (IF = 1.814)
38. **M.F. Nazar\***, W. Azeem, U.A. Rana, M. Ashfaq, A. Lashin, N. Al-Arifi, H.M.A. Rahman, A.M. Lazim, A. Mahmood. “pH-dependent probing of levofloxacin assimilated in surfactant mediated assemblies: Insights from photoluminescent and chromatographic measurements”. *Journal of Molecular Liquids* 220 (2016) 26-32. (IF = 6.633)
39. M.A Raza, F. Anwar, D. Shahwar, A. Majeed, M.W. Mumtaz, M. Danish, **M.F. Nazar**, I. Perveen, S.D. Khan. “Antioxidant and antiacetylcholine esterase potential of aerial parts of *Conocarpus erectus*, *Ficus variegata* and *Ficus maclellandii*”. *Pakistan Journal of Pharmaceutical Sciences* 29 (2016) 489-495. (IF = 0.863)
40. L. Duester, A.L. Fabricius, S. Jakobtorweihen, A. Philippe, F. Weigl, A. Wimmer, M. Schuster, **M.F. Nazar**. “Can cloud point-based enrichment, preservation and detection methods help to bridge gaps in aquatic nanometrology?”. *Analytical and Bioanalytical Chemistry* 408 (2016) 7551-7557. (IF = 4.478)

41. S. Shamim, S. Murtaza, **M.F. Nazar**. “*Synthesis of Schiff Bases of Pyridine-4-Carbaldehyde and their antioxidant and DNA Binding Studies*”. Journal of the Chemical Society of Pakistan 38 (2016) 494-503. (IF = 0.698)

### 2017

42. M. Ashfaq, K.N. Khan, M.S.U. Rehman, G. Mustafa, **M.F. Nazar**, Q. Sun, J. Iqbal, S.I. Mulla, C.P. Yu. “*Ecological risk assessment of pharmaceuticals in the receiving environment of pharmaceutical wastewater in Pakistan*”. Ecotoxicology and Environmental Safety 136 (2017) 31-39. (IF = 7.129)
43. K.I. Hussain, M. Usman, M. Siddiq, N. Rasool, **M.F. Nazar**, I. Ahmad, A.A. Holder, A.A. Altaf. “*Application of micellar enhanced ultra-filtration for the removal of sunset yellow dye from aqueous media*”. Journal of Dispersion Science and Technology 38 (2017) 139-144. (IF = 2.042)
44. M. Danish, M. Ashiq, **M.F. Nazar\***. “*Physicochemical investigation of sulfonamide-derived compounds interacting with conventional cationic surfactants in aqueous media*”. Journal of Dispersion Science and Technology 38 (2017) 837-844. (IF = 2.042).
45. H.M.A. Rahman, S. Afzal, **M.F. Nazar**, D.A. Alvi, A.M. Khan, M.N. Asghar. “*Phase Behavior of a TX-100/Oleic Acid/Water Based Ternary System: A Microstructure Study*”. Journal of Molecular Liquids 230 (2017) 15-19. (IF = 6.633)
46. **M.F. Nazar\***, M.A. Saleem, S.N. Bajwa, B. Yameen, M. Ashfaq, M.N. Zafar, M. Zubair. “*Encapsulation of antibiotic levofloxacin in biocompatible microemulsion formulation: Insights from microstructure analysis*”. The Journal of Physical Chemistry B 121 (2017) 437-443. (IF = 3.466)
47. S.D. Ali, I.N. Javed, U.A. Rana, **M.F. Nazar\***, W. Ahmed, A. Junaid, M. Pasha, R. Nazir, R. Nazir. “*Novel SrO-CaO mixed-metal-oxides catalyst for ultrasonic-assisted transesterification of Jatropha oil into biodiesel*”. Australian Journal of Chemistry 70 (2017) 258-264. (IF = 1.224)
48. M.N. Zafar, F. Perveen, **M.F. Nazar**, E.U. Mugal, H. Rafique, M.N. Tahir, M.S. Akbar, S. Zahra. “*Synthesis, characterization, DNA-Binding, enzyme inhibition and antioxidant studies of new N-methylated derivatives of pyridinium amine*”. Journal of Molecular Structure 1137 (2017) 84-96. (IF = 3.841)
49. A.M. Khan, A. Mehmood, M. Sayed, **M.F. Nazar**, B. Ismail, R.A. Khan, H. Ullah, H.M.A. Rahman, A.Y. Khan, A.R. Khan. “*Influence of Acids, Bases and Surfactants on the Photocatalytic Degradation of a Model Dye Rhodamine B*”. Journal of Molecular Liquids 236 (2017) 395-403. (IF = 6.633)
50. M.N. Zafar, **M.F. Nazar**, M.A. Raza, E.U. Mughal, A.F. Dalebrook, L.J. Wright. “*Synthesis, Characterization, Preliminary Biological Screening and Interaction Studies of the bis(pyridinium)amine compound, 4,4'-(2-aminophenyl)azanediyl)bis(1-methylpyridin-1-ium) triflate with Biological Macromolecules*”. Russian Journal of General Chemistry 87 (2017) 554-563. (IF = 0.779)
51. M.N. Zafar, S. Masood, **M.F. Nazar**, M.A. Raza, M.N. Tahir, E.U. Mughal, H. Rafique, G. Saba. “*Solvent free synthesis of water-soluble new pyridinium amines: spectroscopic characterization, biological screening, and interaction study with DNA*”. Journal of the Chinese Chemical Society 64 (2017) 822-832. (IF = 1.753)

52. W. Azeem, P. John, **M.F. Nazar\***, I.U. Khan, A. Riaz, S. Sharif. "Spectral and chromatographic characterization of fixed dose combination norfloxacin and metronidazole interacting with cetyltrimethylammonium bromide". *Journal of Molecular Liquids* 244 (2017) 135-140. (IF = 6.633).
53. M. Ashfaq, N. Noor, G. Mustafa, M.S.U. Rehman, **M.F. Nazar**. "Determination of Commonly used pharmaceuticals in Hospital waste of Pakistan and evaluation of their health risk assessment". *CLEAN-Soil Air Water* 45 (2017) 1500392. (IF = 2.404)

## 2018

54. S.H. Sumrra, F. Mushtaq, M. Khalid, M.A. Raza, **M.F. Nazar**, B. Ali, A.A.C. Braga "Synthesis, Spectral Characterization and Computed Optical Analysis of Potent Triazole Based Compounds". *Spectrochimica Acta Part A-Molecular and Biomolecular Spectroscopy* 190 (2018) 197-207. (IF = 4.831)
55. A. Ashri, N. Amalina, A. Kamil, S. Fazry, M. F. Sairi, **M. F. Nazar**, A. M. Lazim. "Modified *Dioscorea hispida* starch-based hydrogels and their in-vitro cytotoxicity study on small intestine cell line (FHS-74Int)". *International Journal of Biological Macromolecules* 107 (2018) 2412-2421. (IF = 8.025)
56. A.M. Khan, S. Bashir, A. Shah, **M.F. Nazar**, H.M.A. Rahman, S.S. Shah, A.Y. Khan, A.R. Khan, F. Shah. "Spectroscopically probing the effects of Ho(III) based complex counterion on the dye-cationic surfactant interactions. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 539 (2018) 407-415. (IF = 5.518).
57. M.N. Zafar, S. Zahra, M.N. Tahir, E.U. Mugal, **M.F. Nazar**, H. Rafique. "One-pot synthesis of new *N*-(1-methylpyridin-4(1H)-ylidene)amine ligands for Palladium-catalysed Heck coupling reaction". *Turkish Journal of Chemistry* 42 (2018) 63-74. (IF = 1.151)
58. S.H. Sumrra, A.H. Atif, M.N. Zafar, M. Khalid, M.N. Tahir, **M.F. Nazar**, M.A. Nadeem, A.A.C. Braga "Synthesis, crystal structure, spectral and DFT studies of potent isatin derived metal complexes". *Journal of Molecular Structure* 1166 (2018) 110-120. (IF = 3.841)
59. W. Azeem, P. John, **M.F. Nazar\***, M. Ashfaq, I.U. Khan, S. Sharif, A. Riaz. "Fixed-dose combination antibiotics interacting with a quaternary ammonium disinfectant: Insights from spectral and chromatographic measurements". *Journal of Solution Chemistry* 47 (2018) 1048-1059. (IF = 2.000)
60. M. Zubair, F. Anwar, M.N. Zafar, **M.F. Nazar**, A.I. Hussain, E.U. Mughal. "Effect of Ultrasonic Extraction Regimes on Phenolics and Antioxidant Attributes of Rice (*oryza sativa* L.) Cultivars". *Iranian Journal of Chemistry & Chemical Engineering* 37 (2018) 109-119. (IF = 1.903)
61. M.B. Tahir, M. Rafique, M. Isa Khan, A. Majid, **M.F. Nazar**, M. Sagir, S. Gilani, M. Farooq, A.Ahmed. "Enhanced Photocatalytic Hydrogen Energy Production of *g-C<sub>3</sub>N<sub>4</sub>-WO<sub>3</sub>* Composites under Visible Light Irradiation". *International Journal of Energy Research* 42 (2018) 4667-4673 (IF = 4.672)
62. **M.F. Nazar\***, M.Y. Siddique, M.A. Saleem, M. Zafar, F. Nawaz, M. Ashfaq, A.M. Khan, H.M.A. Rahman, M.B. Tahir, A. M. Lazim. "Fourth-Generation Antibiotic Gatifloxacin Encapsulated by Microemulsions: Structural and Probing Dynamics". *Langmuir* 34 (2018) 10603-10612. (IF = 4.331)



63. M.A. Saleem, **M.F. Nazar\***, B. Yameen, A.M. Khan, S.Z. Hussain, M.R. Khalid. “*Structural Insights into the Microemulsion-Mediated Formation of Fluoroquinolone Nanoantibiotics*”. ChemistrySelect 3 (2018) 11616-11621. (IF = 2.307)

### 2019

64. A.M. Khan, F. Shafiq, S.A. Khan, S. Ali, B. Ismail, A.S. Hakeem, A. Rahdar, **M.F. Nazar**, M. Sayed, A.R. Khan. “*Surface modification of colloidal silica particles using cationic surfactant and the resulting adsorption of dyes*”. Journal of Molecular Liquids 274 (2019) 673-680. (IF = 6.633)
65. A. Rehman, S.A. Khan, S. Ali, **M.F. Nazar**, A. Shah, A.R. Khan, A.M. Khan. “*Counterion engineered surfactants for the novel synthesis of colloidal metal and bimetal oxide/SiO<sub>2</sub> materials with catalytic applications*”. Colloids and Surfaces A: Physicochemical and Engineering Aspects 571 (2019) 80-85. (IF = 5.518).
66. M.N. Zafar, Q. Dar, F. Nawaz, M.N. Zafar, M. Iqbal, **M.F. Nazar**. “*Effective Adsorptive removal of toxic azo dyes over spherical ZnO nanoparticles*”. Journal of Materials Research and Technology 8 (2019) 713-725. (IF = 6.267)
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75. M.N. Zafar, S. Ghafoor, M. Tabassum, M. Zubair, **M.F. Nazar**, M. Ashfaq. "Utilization of peanut (*Arachis hypogaea*) hull based activated carbon for the removal of amaranth dye from aqueous solutions". *Iranian Journal of Chemistry & Chemical Engineering* 39 (2020) 183-191. (IF = 1.903)
76. A.M. Khan, S. Khizar, S.A. Khan, S. Ali, A. Shah, **M.F. Nazar**, F.J. Iftikhar, F. Shah, R.A. Khan, A.R. Khan. "Investigation of counterion effects of transition metal cations ( $Fe^{3+}$ ,  $Cu^{2+}$ ,  $Zn^{2+}$ ) on cetrimonium bromide using cyclic voltammetry". *Journal of Molecular Liquids* 313 (2020) 113599 (IF = 6.633).
77. M.A. Saleem, M.Y. Siddique, **M.F. Nazar\***, S.U. Khan, A. Ahmad, R. Khan, S.Z. Hussain, A.M. Lazim. "Formation of Antihyperlipidemic Nano-Ezetimibe from Volatile Microemulsion Template for Enhanced Dissolution Profile". *Langmuir* 36 (2020) 7908-7915. (IF = 4.331)
78. M. Munir, **M.F. Nazar\***, M.N. Zafar, M. Zubair, M. Ashfaq, A. Hosseini-Bandegharai. "Effective adsorptive removal of methylene blue from water by didodecyltrimethylammonium bromide-modified brown clay". *ACS Omega* 5 (2020) 16711-16721. (IF = 4.132).
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80. M. Mahmood, M. Abid, **M.F. Nazar\***, M.A. Raza, S.U. Khan, A. Ahmad, M. Ashfaq, A.M. Khan, S.H. Sumrta, M.N. Zafar. "The Wet Chemical Synthesis of Surfactant-Capped Quasi-Spherical Silver Nanoparticles with Enhanced Antibacterial Activity". *Materials Advances* 1 (2020) 2332-2338.
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82. S.H. Sumrta, M. Anees, A. Asif, M.N. Zafar, K. Mahmood, **M.F. Nazar**, M. Khalid, M.A. Nadeem, M.U. Khan. "Synthesis, Structural, Spectral, and Biological Evaluation of Metal Endowed 1,2,4-Triazole". *Bulletin of the Chemical Society of Ethiopia* 34 (2020) 335-351. (IF = 1.218)

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87. S.H. Sumrra, W. Zafar, M.L. Asghar, F. Mushtaq, M.A. Raza, **M.F. Nazar**, M.A. Nadeem, M. Imran, S. Mumtaz. “*Computational Investigation of Molecular Structures, Spectroscopic Properties, Cholinesterase Inhibition and Antibacterial Activities of Triazole Schiff bases Endowed Metal Chelates*”. Journal of Molecular Structure 1238 (2021) 130382. (IF = 3.841).
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90. M.N. Zafar, A.M. Butt, G.S. Chaudhary, F. Perveen, **M.F. Nazar**, S. Masood, A.F. Dalebrook, E.U. Mughal, S.H. Sumrra, Y.Y. Sung, T.S.T, Muhammad, L.J. Wright. “*Pd(II) Complexes with Chelating N-(1-Alkylpyridin-4(1H)-ylidene)amide (PYA) Ligands: Synthesis, Characterization and Evaluation of Anticancer Activity*”. Journal of Inorganic Biochemistry 224 (2021) 111590. (IF = 4.336).
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93. M.Y. Siddique, **M.F. Nazar\***, M. Mahmood, M.A. Saleem, N. Alwadai, A.S. Almuslem, F.H. Alshammari, S. Haider, M.S. Akhtar, S.Z. Hussain, M. Safdar, M. Akhlaq. “*Microemulsified-Gel Formulations for Topical Delivery of Clotrimazole: Structural and In-Vitro Evaluation*”. Langmuir 37 (2021) 13767-13777. (IF = 4.331)

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111. A. Hassan, S.H. Sumrra, G. Mustafa, **M.F. Nazar**, M. Zubair, M.N. Zafar. “*A DFT study on new photovoltaic dyes to investigate their NLO tuning at near infrared region (NIR) as pull–push effect by end capped acceptors*”. *Journal of Fluorescence* <https://doi.org/10.1007/s10895-022-03075-1>. (IF = 2.525)
112. S. Shaukat, S. Amjad, H.M.A. Rahman, M. Usman, Z.H. Farooqi, **M.F. Nazar**. “*Application of anionic-nonionic mixed micellar system for solubilization of methylene blue dye*”. *Journal of Molecular Liquids* (accepted). (IF = 6.633)
113. A. Hassan, S.H. Sumrra, G. Mustafa, **M.F. Nazar**, M.N. Zafar. “*Efficient and tunable enhancement of NLO performance for indaceno based donor moiety in A- $\pi$ -D- $\pi$ -D- $\pi$ -A type first DSSC design by end capped acceptors*”. *Journal of Molecular Modeling* (accepted). (IF = 2.172)
114. M.A. Ehsan, Z. Ullah, **M.F. Nazar**, M. Younas, M.H. Suliman. “*One step fabrication of nanostructured nickel thin films on porous nickel foam for drastic electrocatalytic oxygen evolution*”. *International Journal of Hydrogen Energy* (accepted). (IF = 7.139)

## **Book/Chapter Published**

1. S.S. Saleem, S. Saleem, **M.F. Nazar\***. (2023). Role of Biosurfactants in Nanoparticles Synthesis and their Stabilization. In: Aslam, R., Mobin, M., Aslam, J., Zehra, S. (eds) *Advancements in Biosurfactants Research*. Springer, Cham. [https://doi.org/10.1007/978-3-031-21682-4\\_10](https://doi.org/10.1007/978-3-031-21682-4_10)
2. N. Tawakkul, M. Batool, S. Batool, G. Mustafa, **M.F. Nazar\***. (2023), “General mechanisms of drug loading and sustained release” in *Novel Platforms for Drug Delivery Applications*, ISBN: 611308.
3. M. Batool, N. Tawakkul, S. Batool, M.N. Zafar, **M.F. Nazar\***. (2023), “Porous metal-organic-framework nanoscale carriers as a potential platform for drug delivery” in *Novel Platforms for Drug Delivery Applications*, ISBN: 611308.
4. M.A. Saleem, M.Y. Siddique, M. Zubair, M. Ashfaq, **M.F. Nazar\***. (2023), “Self-nanoemulsifying drug delivery systems with bioavailability potential” in *Novel Platforms for Drug Delivery Applications*, ISBN: 611308.
5. M. Abid, M. Mahmood, M. Batool, S.H. Sumrra, **M.F. Nazar\***. (2023), “Biodegradable polymeric nanoparticle drug for oral delivery applications” in *Novel Platforms for Drug Delivery Applications*, ISBN: 611308.
6. M. Batool, **M.F. Nazar**, M.B. Tahir, M. Sagir, S, Batool. Chapter 10 - “Nanomaterial safety regulations” in *Nanomaterials: Synthesis, Characterization, Hazards and Safety (Micro and Nano Technologies)*, Elsevier, 2021, Pages 259-272.
7. A. Baig, M. Zubair, M.N. Zafar, M. Farid **M.F. Nazar**, S.H. Sumrra. Chapter 11 - “Nanobiodegradation of plastic waste” in *Biodegradation and Biodeterioration at the Nanoscale (Micro and Nano Technologies)*, Elsevier, 2022, Pages 239-259.
8. U.E. Ruman, M. Zubair, M. Farid, S.H. Sumrra, **M.F. Nazar**, M.A. Hanif (2022). Strategies for Commercializing Scientific Results and Combining Separate Processes Into Complex Technologies. In: Režek Jambrak, A. (eds) *Nonthermal Processing in Agri-Food-Bio Sciences*. Food Engineering Series. Springer, Cham. [https://doi.org/10.1007/978-3-030-92415-7\\_25](https://doi.org/10.1007/978-3-030-92415-7_25).
9. M. Batool, M.N. Zafar, **M.F. Nazar\***. Chapter 10 - “General regulations for safety manufacturer of nanomaterials” in *Nanomaterials Recycling (Micro and Nano Technologies)*, Elsevier, 2022, Pages 61-82.
10. S. Aman, M. Bashir, M. Baigum, **M.F. Nazar**, S.H. Sumrra, S.S. Shafqat, M.N. Zafar (2022), Graphene based nanocomposites: Synthesis, characterization and energy harvesting applications. In: Shalan, A.E., Hamdy Makhlof, A.S., Lanceros-Méndez, S. (eds) *Advances in Nanocomposite Materials for Environmental and Energy Harvesting Applications*. Engineering Materials. Springer, Cham. [https://doi.org/10.1007/978-3-030-94319-6\\_27](https://doi.org/10.1007/978-3-030-94319-6_27).
11. M. Bashir, S. Aman, Aneesa, **M.F. Nazar**, M. Zubair, R. Nadeem, M.N. Zafar (2021). Metal Sulfide Nanocomposites for Energy Harvesting Applications. In: Shalan, A.E., Hamdy Makhlof, A.S.,

Lanceros-Méndez, S. (eds) *Advances in Nanocomposite Materials for Environmental and Energy Harvesting Applications*. Engineering Materials. Springer, Cham. [https://doi.org/10.1007/978-3-030-94319-6\\_19](https://doi.org/10.1007/978-3-030-94319-6_19).

**12. Muhammad Faizan Nazar** and Syed Sakhawat Shah, “Microemulsion Encapsulation Technology”. LAP LAMBERT Academic Publishing (2014-07-16), ISBN-13: 978-3-659-56246-4.

**13. Muhammad Faizan Nazar**, “Manual Chemistry Practical” (Physical Chemistry: pp 23-25). 2013/Department of Chemistry, University of Gujrat /HEC Pakistan.

### **Conferences/Seminars/Workshops**

- Participated in 18<sup>th</sup> National Chemistry Conference (25-27<sup>th</sup> February 2008) held at Institute of Chemistry, University of the Punjab, Lahore.
- Co-author of “Derivatization/Chromophore Introduction of Tranexamic Acid and its HPLC Determination in Pharmaceutical Formulations” by M. Ashfaq, A. Aslam, M. Danish, G. Mustafa, M.F. Nazar, presented by M. Ashfaq at “44<sup>th</sup> World Chemistry Congress (IUPAC)” held at Istanbul/Turkey, 11-16<sup>th</sup> August, 2013.
- Participated in Five days National Workshop: Training of Trainers, Research Design & Practical Handling, held at Department of Chemistry, University of Gujrat, Gujrat, 16-20<sup>th</sup> September 2013.
- Oral presentation “UV/Vis Spectroscopy, Theory and Practical Instructions” at Five days National Workshop: Training of Trainers, Research Design & Practical Handling, held at Department of Chemistry, University of Gujrat, Gujrat, 16-20<sup>th</sup> September 2013.
- Participated in DICE CONNECT 2013 in collaboration with PCST & BRITISH COUNCIL (1-2 October 2013) held at University of Gujrat, Gujrat.
- Participated in Two days on-line training workshop on Managing Academic Thesis in collaboration with IRP (23-24 January 2015) held at University of Gujrat, Gujrat.
- Organized/Participated in Two days workshop “Dye sensitized solar cell theory and fabrication” in collaboration with HEC (11-12 March 2015) held at University of Gujrat, Gujrat.
- Organized/Participated in One day symposium (4<sup>th</sup> June 2015) on “Chemistry; A Need of the Hour” held at Department of Chemistry, University of Gujrat, Gujrat.
- Participated in Two days International Conference (5-6 October 2015) on “Recent Trends in Chemistry” held at Department of Chemistry, Allama Iqbal Open University, Islamabad.
- Organized/Participated in Two-Days Interdisciplinary National Workshop on “Chromatography & Mass Spectrometry” in collaboration with ORIC (29-30 March 2017) held at University of Gujrat, Gujrat.
- Organized/Participated in Two-Days International Symposium on “Developments in Contemporary Chemistry” in collaboration with ORIC (21-22 November 2017) held at University of Gujrat, Gujrat.

- Participated in Two-Days Workshop on “Risk assessment and emergency response to chemical, biological and environmental hazards at work place” in collaboration with ORIC (28-29 March 2018) held at University of Gujrat, Gujrat.
- Participated in Improving Research Planning skills using Elsevier Tools-ScienceDirect & Scopus@ KFUEIT (15<sup>th</sup> February 2021) held at Khawaja Fareed University of Engineering and Information Technology (KFUEIT) Rahim Yar Khan.

### **Additional Assignment (academic / administrative)**

- Coordinator of the Department of Chemistry, University of Education Lahore, Multan Campus (21 January 2021 to date).
- Member Purchase Committee, University of Education Lahore, Multan Campus (21 March 2021 to date).
- Convener Unserviceable Items Committee, University of Education Lahore, Multan Campus (21 March 2021 to date).
- Member Discipline Committee, University of Education Lahore, Multan Campus (21 March 2021 to date).
- Member Unfair Means Committee, University of Education Lahore, Multan Campus (21 March 2021 to date).
- Member Board of Studies (BOS) of the Department of Chemistry (6 November 2020 to date), University of Education Lahore, Pakistan.
- Member Faculty Board (BOF) of the Division of Sciences & Technology (6 November 2020 to date), University of Education Lahore, Pakistan.
- Superintendent of Examination of the Department of Chemistry (January 2020 to 5 November 2020), University of Gujrat, Pakistan.
- Member Board of Studies (BOS) of the Department of Chemistry (September 2018 to 5 November 2020), University of Gujrat, Pakistan.
- Member Departmental Review and Research Committee (DRRC) of the Department of Chemistry (October 2015 to 5 November), University of Gujrat, Pakistan.
- Departmental Focal Person for Office of Research Innovation & Commercialization (ORIC), December 2016 to February 2018.
- Verification officer Admission-2016 of the Department of Chemistry, University of Gujrat, Pakistan
- Member Departmental Doctoral/MPhil Program Committee (DDMPC) of the Department of Chemistry (July 2013 to September 2015), University of Gujrat, Pakistan.
- MPhil Coordinator (July 2014 to September 2015) of the Department of Chemistry, University of Gujrat, Pakistan.
- Member of JBH Chemist Society of the Department of Chemistry, University of Gujrat, Pakistan.
- Incharge of Glassware store of the Department of Chemistry, University of Gujrat, Pakistan.



- SSC & SSIC Coordinator (July 2013 to October 2013) of the Department of Chemistry, University of Gujrat, Pakistan.
- Member of International Advisory Board Committee for International Post graduate Conference on Science and Mathematics 2013 (IPCSM 2013) held in Universiti Pendidikan Sultan Idris Malaysia.

### **Thesis Supervision (HEC Approved Supervisor)**

S. No.	Student	Degree	Title	University	Thesis
<b>PhD</b>					
1	Waqar Azeem	PhD	Interaction of Commercially Available Drugs with Pseudomembrane Model using Micellar Liquid Chromatography and Electronic Spectroscopy	GC University Lahore	2019 cosupervisor
1	Muhammad Munir Awan	PhD	Natural and Modified Clays for Removal of Organic Pollutants from Water	University of Gujrat	2021
2	Muhammad Atif Saleem	PhD	Microemulsion Mediated Synthesis of Nanodrugs for Improved Pharmaceutical Formulations	University of Gujrat	2021
3	Mehwish Abid	PhD	Designing and Fabrication of Thermo/pH Responsive Hydrogels for Encapsulation of Anticancer Drugs	University of Gujrat	2021
5	Muhammad Yasir Siddique	PhD	Formulation and Evaluation of Microemulsion Based Gels for Delivery of Active Pharmaceuticals	University of Gujrat	Thesis In progress
<b>MPhil</b>					
1	Fareeha Mukhtar	M.Phil	Encapsulation and <i>invitro</i> evaluation of fluoroquinolone based antibacterial drugs in surfactant organized media	University of Gujrat	2015
2	Mehwish Abid	M.Phil	Impact of amino acids on structural and drug-binding properties of surfactant molecular assemblies in aqueous medium	University of Gujrat	2015
3	Nazia Asghar	M.Phil	Solubilization of azo dyes in microheterogeneous surfactant self-assemblies	University of Gujrat	2015
4	Ayesha Khalid Chaudhry	M.Phil	Molecular recognition of potent pyridinium based compounds with macromolecules	University of Gujrat	2015
5	Reema Ayesha	M.Phil	Adsorption study of some fluoroquinoline antibiotics using activated carbon from microphyte	University of Gujrat	2015
6	Ayesha Abbas	M.Phil	Removal of brilliant green dye from water by using macroalgae as an adsorbent	University of Gujrat	2015
7	Lubna Shehzadi	M.Phil	Synthesis and characterization of spinel nano barium ferrites	University of Gujrat	2016
8	Nisma Mirza	M.Phil	Photophysical investigations of pyridinium amide ligand and its palladium complex interacting with macromolecules	University of Gujrat	2016
9	Sadaf Noreen	M.Phil	Physicochemical investigation of pyridine-4-carbaldehyde Schiff bases in aqueous micellar solution under different pH conditions	University of Gujrat	2016

10	Nyla Naz	M.Phil	Solubilization of 4-formylbenzoic acid Schiff bases in surfactant mediated molecular assemblies	University of Gujrat	2016
11	Aqsa Nazir	M.Phil	Interaction of dual-drug combination with ionic surfactants	University of Gujrat	2016
12	Nayyar Noor	M.Phil	Adsorption study of organic contaminants using modified adsorbents	University of Gujrat	2016
13	Zaghum Abbas	M.Phil	Adsorption of Azo Dyes using Activated Carbon from Leather Waste	University of Gujrat	2017
14	Sana Nawaz Bajwa	M.Phil	Development of Microemulsion Formulation for Encapsulation of Fluoroquinolone based Drug	University of Gujrat	2017
15	Usman Fareed	M.Phil	Synthesis and Biological Applications of Silver Nanoparticles	University of Gujrat	2017
16	Muhammad Yasir Saddique	M.Phil	Formulation and Structural Analysis of Microemulsion Containing Antibiotic Gatifloxacin	University of Gujrat	2017
17	Linta Rizwan	M.Phil	Preparation and Structural Insights of Microemulsion Containing Anticancer Drug Methotrexate	University of Gujrat	2018
18	Muniba Rafique	M.Phil	Synthesis and physicochemical characterization of fluorescent organic nanoparticles	University of Gujrat	2019
19	Ayesha Mujeed	M.Phil	Structural and probing dynamics of microemulsion formulation containing antimuscarinic drug mirabegron	University of Gujrat	2019
20	Amina Khalil	M.Phil	Probing of antipsychotic drug quetiapine fumarate assimilates in surfactant mediated assemblies	University of Gujrat	2019
21	Marryam Mahmood	M.Phil	Biological evaluation of surfactant capped metal nanoparticles	University of Gujrat	2020
22	Iqra	M.Phil	Characterization and Biological Evaluation of Brij-35 based Microemulsion Formulation Containing Fluoroquinolone Antibiotics	University of Gujrat	2020

### BS/M.Sc.

1	Sonam Chaudry	BS	Molecular interactions and <i>invitro</i> evaluation of gemifloxacin in ionic micellar media under different pH conditions	University of Gujrat	2013
2	Beenish Ijaz	M.Sc.	Physicochemical Investigations and Spectral Properties of Carmoisine in Surfactant Organized Media	University of Gujrat	2013
3	Nyla Shabeer	BS	Biophysical Probing of Antibacterial Levofloxacin Interacting with Bovine Serum Albumin	University of Gujrat	2014
4	Hajira Ahmed	BS	Spectral-Luminescent Properties Of Antibacterial Levofloxacin Assimilated In Surfactant Molecular Assemblies	University of Gujrat	2014
5	Komal Zafar	M.Sc.	Impact of Co-Ni Substitution on Physical and Dielectric Properties of Mg Nanoferrites	University of Gujrat	2014
6	Sana Tariq	BS	Preparation of Activated Carbon from Leather Waste to Remove Amaranth Dye from Aqueous Solution	University of Gujrat	2016
7	Muniba Rafique	BS	Removal of Carmoisine Dye from Aqueous Medium using Activated Carbon Prepared from Leather Waste	University of Gujrat	2016
8	Alina Kayani	BS	Molecular Interaction of Antibacterial Drug Gatifloxacin with CTAB under Different pH	University of Gujrat	2017

			Conditions		
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## **References**

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