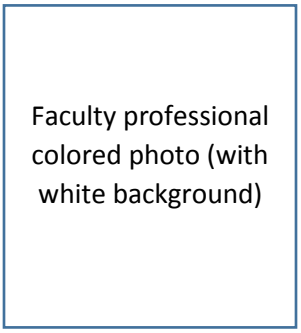
Curriculum Vitae



Position/Designation: Assistant Professor

Department: Biological Sciences & Chemistry

College: Arts &Sciences

University of Nizwa, Sultanate of Oman

Personal Information
Name: Saima Farooq **Email Address:** saima@unizwa.edu.om **Contact Numbers:** +968-25446710
Academic Qualifications
• Post-doc., Swansea University, UK, 2019 • Ph.D. in Physical Chemistry, Quaid-i-Azam University, Pakistan, 2012 • M. Phil. in Physical Chemistry, Quaid-i-Azam University, Pakistan, 2006 • M.Sc. in Chemistry, Quaid-i-Azam University, Pakistan, 2004
Teaching Activities, Current / Previous Experience
Teaching /Research at undergraduate and graduate level courses: • Physical Chemistry-I/II • Environmental Chemistry • Polymer Chemistry • Petroleum Chemistry • Advanced Physical Chemistry laboratory • Nanomaterials Characterization • Applied Industrial Chemistry
Research Activities (includes but not limited to research interests, conference attendance, conference presentations and publications, refereed journal, articles ,books, ect.)
Research interests: • Semiconductor photocatalysis • Wastewater treatment using nanomaterial photocatalysis • Environmental remediation and renewable energy applications • Synthesis and characterization of magnetic oxide nanomaterials • Chemometrics • Theoretical Chemistry

TRAINING PARTICIPATION:

- Attended operational training on Dispersive Raman Microscope Senterra held at University of Nizwa on Apr.16th, 2017
- Attended the training workshop on 'Assessment using WAEVEOnline' from 20-22 Jan 2015 held in the University of Nizwa, Oman
- Attended the training workshop entitled, 'Extracting Eduwave Data' using SPSS' on 9th February 2015, conducted by Quality Assurance Office, University of Nizwa, Oman
- Attended the training seminar entitled, 'Graduate Attributes and Program Learning Outcomes' on 5th May 2015, A Staff Development Program Conducted by Department of Biological Sciences and Chemistry, University of Nizwa, Oman

CONFERENCE/WORKSHOP PARTICIPATION:

- Presented Paper in 2nd Nano-Workshop, 29th April 2018, University of Nizwa, Oman
- Application of FT-NIRS coupled with multivariate PLSR method for the quantification of cholesterol in edible oil, Poster presentation, Cultural week Activities and College Open Day (2018)
- Photocatalytic Degradation of Methylene Blue by Spinel ZnFe2O4 Nanoparticles, Poster presentation, Cultural week Activities and College Open Day (2017)
- Detection and Estimation of Super Premium 95 Gasoline Adulteration with Premium 91 Gasoline using new NIR Spectroscopy Combined with Multivariate Methods, Poster presentation, Research Day, Cultural Week (2017)
- Saima Farooq A. Al-Hattli, W. R. Al-Hinnai, Removal of Methyl Green dye by adsorption onto Ni-Co Spinel Ferrites (Ni0.5Co0.5Fe2O4) Nanoparticles, Poster presentation, Research Day, Cultural Week (2016)
- vi. 2nd Arab-American Frontiers of Science, Engineering, and Medicine Symposium held on December 13 to 15, 2014 in Muscat, Oman
- participated in the workshop titled "Ideal Teacher" held on 1st February 2015 in the University of Nizwa, Oman
- 5th International and 15th National Chemistry Conference Nov. 24 – 27, 2004 at Quaid-i-Azam University, Islamabad, Pakistan.
- Workshop on NanoScience and Catalysis, National Centre for Physics, Islamabad, (NCS-2008), 24-25th March, 2008 at Quaid-i-Azam University, Islamabad, Pakistan.
- Optimization of synthesis routes on the structural, electrical and dielectric properties of magnesium aluminate nanoparticles, M. J. Iqbal, Saima Farooq, Poster Publication, 17th National Chemistry Conference, Feb. 24-26, 2008 at Punjab University, Lahore Pakistan.

RESEARCH PROJECTS:

- Bioaugmentation of petroleum sludge for production of bio fuels and biofertilizers RG program TRC Oman 9000/-OMR (Co-I; Approved for funding 2019)
- Synthesis and characterization of visible light active transition metal selenide photocatalysts for efficientCO2 reduction into value-added fuels, URG program-TRC Oman 1500/-OMR (PI; Approved for funding 2019)
- "Preparation and Characterization of Carbon nanotube-based Catalyst for Photo-catalytic Applications-Desulfurization of Fuel", TRC Oman 3000/-OMR (Co-I; Approved for funding 2019)
- Photodegradation of aquatic steroid estrogens under visible light irradiation, RG program-TRC Oman 7000/-OMR (PI; submitted for funding 2020)
- Robust reflectance spectroscopies (FTIR-ATR, NIR): A diagnostic tool for detection of

infectious diseases and biomarker identification in clinical samples, Directorate General of Health, Ad-Dakhiliya Region MOH, Oman 8000/- OMR (Co-I; Approved for funding Sep 2018)

- Synthesis, Characterization and Bioactivity of Nanostructured Calcium Oxide Derivatives and their Application for Water Treatment, The Research Council of Oman (2014-2015) 2400 Riyal Omani (PI, completed)
- Use of Modified Spinel Ferrites Nanoparticles for the Removal of Dyes from Industrial Waste Water, The Research Council of Oman (2014-2015) 12,800 Riyal Omani (PI; completed)
- Study of Intrinsic Properties of Novel Magnetic Nanomaterials, Higher Education Commission Pakistan 2007-2009, 22,575 USD, (Co-PI; Completed)

GRADUATE RESEARCH PROJECT SUPERVISION:

- Abir Rashid Saleem Al Hattali (Student ID# 11539593) Studies on the Adsorption Removal of Methyl Green on to Mixed spinel Ferrite Ni0.5Co0.5Fe2O4 Nanoparticles (2016-2017)
- Anaam Said Amur Al Kharusi (Student ID# 22238056) Application of Response Surface Methodology (RSM) to Optimize the Process Variables for Adsorptive Removal of Methyl Green onto Nickel-Ferrite Nanoparticles (2016-2017)
- Wesham Rashid Saleh Al Hinai (Student ID# 23393527) Effect of Synthesis Method on the Structural and Morphological Properties of Spinel Ferrite Nanoparticles (2016-2017)
- Khaloud Humaid Al-Busaidi (Student ID# 09743389) Synthesis and Characterization of Mixed spinel Ferrite Ni0.5Co0.5Fe2O4 Nanoparticles (2016-2017)
- Rasha Al-Rumaizi ((Student ID# 12103313) Biodegradation of Sudan IV dyes in aqueous solution (2017-2018)
- Badour Al-Salhi (Student ID# 10103945) Green synthesis of silver nanoparticles by plant extract; B.Sc Chemistry (2018-2019)
- Wafa Said Al-Maqbali (Student ID# 23101567) Biological Activities and Phytochemical Investigation of C. Colocynthis ; B.Sc Chemistry (2018-2019)
- Rawan Al-Hadhrami (Student ID # 1998576) Adsorption of caffeine on activated carbon produces by pryrolysis of waste tires B.Sc Chemistry (2018-2019)
- Yahya Al-Rawahi (Student ID # 02855571) Statistical analysis of adsorption of caffeine on activated carbon produces by pryrolysis of waste tires B.Sc Chemistry (2018-2019)

Research publications:

1. Z. Iqbal, Saima Farooq, M. Naeem Ashiq, M. F. Ehsan, (2019) Study of electrical, dielectric and magnetic properties of Dy-Co bi-substituted strontium hexaferrite nanoparticles, Journal of Materials Science: Materials in Electronics, 30, issue 5; 4658–4664. DOI: 10.1007/s10854-019-00759-6
2. F. Mabood, Saima Farooq, J. Hussain, M. AlBaroumi, A. AlHarrasi, S.A Gilani (2018) Applications of FT-NIRS combined with PLS multivariate methods for the detection & quantification of saccharin adulteration in commercial fruit juices, Food Additives & Contaminants: Part A 35; 1052-1060 doi.org/10.1080/19440049.2018.1457802
3. Z. K. Al-Abri, J. Hussain, F. Mabood, Saima Farooq, N.Rahman, A. AlHarrasi, A.Khan (2018) Fluorescence spectroscopy- Partial Least Square Regression method for the quantification of Quercetin in Euphorbia masirahensis, Measurement, 121; 355-359, doi 10.1016/j.measurement.2018.02.036

4. F. Mabood, R. Boque, M.Al Nabhani, Saima Farooq, S. A. Gilani, J. Hussain, A. Al-Harassi, Z. Hussain (2017) Detection and Quantification of Formalin Adulteration in Cow Milk Using Near Infrared Spectroscopy Combined with Multivariate Analysis, Advances in Dairy Research 5; 1 DOI: 10.4172/2329-888X.1000167
5. F. Mabood, R. Boque, S. A. Gilani, Saima Farooq, J. Hussain, A. Al-Harassi, A. Hamaed (2017) Development of new NIR-spectroscopy method combined with multivariate analysis for detection of adulteration in camel milk with goat milk, Food Chemistry 221; 746–750 doi: 10.1016/j.foodchem.2016.11.109
6. F. Mabood, R. Boque, S. A. Gilani, Saima Farooq, M. AlBaruomi, J. Hussain, A. Al-Harassi, A. Hamaed (2017) New design of experiment combined with UV Vis spectroscopy for extraction and estimation of polyphenols from Basil seeds, Red seeds,Sesame seeds and Ajwan seeds, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 178; 14–18, doi: 10.1016/j.saa.2017.01.051
7. F. Mabood, R. Boque, S. A. Gilani, Saima Farooq, J. Hussain, A. Al-Harassi, A. Hamaed (2017) Detection and estimation of Super premium 95 gasoline adulterations with Premium 91 gasoline using new NIR spectroscopy combined with multivariate methods, Fuel 197; 388-396. DOI: 10.1016/j.fuel.2017.02.041
8. Z. Noureen, N. Rahman, H. Hussain, J. Hussain, Saima Farooq, F. Mabood, A. AlHarassi, (2017) Exploring the potentials of Lysinibacillus sphaericus for plant growth promotion and biocontrol activities against phytopathogenic fungi and molds`` Frontiers in Microbiology, doi: 10.3389/fmicb.2017.01477 8; 1477-1482.
9. M. N. Ashiq, S. Irshad, M.F. Ehsan, Saima Farooq, M.N.Haq, A. Zia, (2017) Visible-light active tin selenide nanostructures: synthesis, characterization and photocatalytic activity, New Journal of Chemistry, 41, 14689-14695 doi: 10.1039/C7NJ04030J
10. M. N. Ashiq, A. S. Asi, Saima Farooq, M. Najam-ul-Haq, S. Rehman, (2017) Magnetic and electrical properties of M-type nano-strontium hexaferrite prepared by sol-gel combustion method, Journal of Magnetism and Magnetic Materials, Volume 444, 426-431, doi 10.1016/j.jmmm.2017.08.065
11. Saima Farooq, A. Saeed, J. Hussain, F. Mabood, (2017) Process Optimization Studies of Crystal Violet Dye Adsorption onto Novel, Mixed Metal Ni0.5Co0.5Fe2O4 Ferrospinel Nanoparticles Using Factorial Design; Journal of Water Processing Engineering, 16; 132–141 DOI: 10.1016/j.jwpe.2017.01.001
12. Z. Noureen, Saima Farooq, J. Hussain, F. Mabood, A. Al-Harrasi, (2016) Generation of Electricity by Electrogenic Bacteria in a Microbial Fuel Cell Powered by Waste Water; Advances in Bioscience and Biotechnology,7; 329-335, DOI : 10.4236/abb.2016.77031

Faculty Administrative Experience

2017 - Present: Department academic advising officer
2017 - Present: Program Coordinator for M.Sc. Chemistry

Community Services

- Designed M.Sc Program “Master in Chemical Sciences” of DBSC

- Contributed to revision of degree Plan of M.Sc, B. Sc.& Diploma in Chemistry
- Program coordinator of "Master in Chemical Sciences" of DBSC since AY 2016/17
- Acting as Department academic advising Officer DBSC since AY 2015/2016
- Designed Course Curriculum for Nanomaterials Characterization (CHEM 624), Nanomaterials synthesis (CHEM 609), for M. Sc, Advanced Materials Chemistry (CHEM 709) for Ph.D, Chemistry of Materials (Metals & Drafting) (FARO 203) for B. Ed in Fine Arts; Jewellery Design
- Designed Lab Manuals (Physical Chemistry-I (CHEM 255), Physical Chemistry-II (CHEM 332), Food Chemistry (CHEM 395), Physical Chemistry Laboratory (CHEM 435), Chemistry of Materials (Metals & Drafting) (FARO 203)
- Member College/Departmental committee
- College Academic Advising (AY 2016-17; AY 2017-18; AY 2018-19
- College Survey Committee (AY 2017-18; AY 2018-19
- Head Department Academic Advising, (AY 2016-17; 2017-18; 2018-19)
- Department Quality Assurance (AY 2016-17; 2017-18; 2018-19)
- Department Student Grievances (AY 2016-17)
- Department Graduate Studies & Research (AY 2017-18; 2018-19)
- Department Final Year Project Research (AY 2014-15; AY 2015-16; 2016-17; 2017-18; 2018-19)
- Department Course time table, (AY 2016-17; 2017-18; 2018-19)
- Department Labs and Library (AY 2016-17; 2017-18; 2018-19)
- Professional events (seminars/workshops, etc) organized
- Department representative for 11th Cultural Week Season 2015; University of Nizwa, Oman (11th Cultural Week Season 2015; 12th Cultural Week Season 2016; 13th Cultural Week Season 2017; 14th Cultural Week Season 2018)
- Organized orientation workshop on academic advising policies & procedures for students and faculty (AY 2017-18; 2018-19)

Consultancy Activities

Membership in Professional Bodies

2019-Present: Member of Chemical Society of Pakistan
2019-Present: Member Royal Society of Chemistry (MRSC; #629441)

Awards and recognitions

- Received research Productivity Award with a cash prize 2010-2011 by Pakistan Council of Science and Technology, Pakistan.
- Received Research Productivity Award 2011-2012 by Pakistan Council of Science and Technology Pakistan
- Obtained University Merit Scholarship AY2004/05, AY 2005-06, AY 2006-07, AY 2008-09 and AY 2009/10 from Quaid-i-Azam University, Pakistan.