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Dr. Hafiz Hussain Gulab (Associate Professor)

Personal Information	<p>Father Name: Rahman Wali Date of birth: 1st March, 1978</p> <p>Domicile: Mohmand Agency (KP)</p> <p>Religion: Islam Nationality: Pakistani</p> <p>N.I.C. #: 16202-0955331-5 Marital status: Married.</p>
Qualification	<p>Terminal Degree: PhD in Chemistry</p> <p>Area of Specialization: Analytical Chemistry</p> <p>Institute: Institute of Chemical Sciences</p> <p>University: University of Peshawar, Pakistan</p> <p>Year: 2010</p> <p>Thesis Title: Thermal and Catalytic Degradation of High-density Polyethylene for Energy Recovery and Quality Environment</p>
Awards	<ul style="list-style-type: none"> • Awarded the Research Productivity Award by the Pakistan Council for Science and Technology for the year 2011.
Research Abroad	<ul style="list-style-type: none"> • Six months Research Experience at the University College London (UCL), UK under the International Research Support Initiative Program (IRSIP) sponsored by Higher Education Commission (HEC) of Pakistan
Teaching Experience	<ul style="list-style-type: none"> • Serving as Associate Professor since May 2016 till date at the Department of Chemistry, Bacha Khan University Charsadda • Served as Assistant Professor at the Department of Chemistry, Bacha Khan University, Charsadda since October, 2010 till May, 2016. • Served as Assistant Professor at the Department of Chemistry, Abdul Wali

	<p>Khan University, Mardan since September, 2010 till September, 2010.</p> <ul style="list-style-type: none"> • Served in the capacity of Lecturer at Institute of Chemical Sciences, University of Peshawar, from January 2010 to August 2010. • One year voluntary teaching experience at M.Sc. level at the Institute of Chemical Sciences, University of Peshawar.
<p>Administrative Experience</p>	<ul style="list-style-type: none"> • Performing the duties of Director Advanced Studies and Research since November 2020 till date. • Serving as Chairman, Department of Chemistry since February 2020 till date. • Performed the duties of Dean of Sciences, Arts and Humanities as Academic Advisor to the Vice Chancellor since June 2017 till February 2020. • Performed the duties of Director Advanced Studies and Research Board since June 2017 till February 2020. • Serving as Director Academics and Admissions of the Bacha Khan University, Charsadda since June 2017 till date. • Served as Director Academics and Admissions of the Bacha Khan University, Charsadda since March 2017 till April 2017. • Served as Treasurer of the Bacha Khan University Charsadda since January 2017 till March 2017. • Served as Provost of the Bacha Khan University Charsadda since November 2016 till January 2017. • Served as Head of the Department of Chemistry, Bacha Khan University Charsadda Since April 2016 till October, 2016. • Served as Treasurer of the Bacha Khan University Charsadda since August 2015 till April 2016. • Served as Head of Department of Chemistry, Bacha Khan University

	<p>Charsadda Since May 2012 till August 2015.</p> <ul style="list-style-type: none"> Served as Chief Proctor of the Bacha Khan University Charsadda since 2012 till August 2015.
Member of Different Committees	<ul style="list-style-type: none"> Presently serving as elected member of the Syndicate and Senate of the Bacha Khan University. Served as convener of the University Discipline Committee (UDC) of the Bacha Khan University Charsadda for about one year. Served as member of the University Discipline Committee (UDC) of the Bacha Khan University Charsadda since July 2012 till April 2017. Served as convener of the Board of Studies and GSC of the Department of Chemistry, Bacha Khan University Charsadda since July, 2012 till October, 2016. Serving as member of the GSC, Board of Studies, Board of Faculty and Academic Council of the Bacha Khan University Charsadda since July, 2012 till Date.
Research Projects	<ul style="list-style-type: none"> Completed a Research Project titled “Method Development and Chemical Modelling for the Disposal of Pesticides” funded by HEC as Principal Investigator. Completed a Research Project titled “Thermal, Catalytic and Co-pyrolysis of Waste Plastics” funded by the Directorate of Science and Technology as Principal Investigator. Acted as Co-Principal Investigator for 3 Research Projects funded by the HEC.
Events Organized	<p>i. Organized a two days Training of Trainers (TOT) on Humanity, Altruism and Citizenship in Pakistan jointly organized by Ministry of Human Rights and Bacha Khan University Charsadda, KPK on 3rd and 4th October 2017.</p>

<p>Papers Presented</p>	<p>(i) Paper presented in the 2nd International Conference on Applied Chemistry at Hurghada, Egypt on November 25-28, 2017 organized by Sohag University, Egypt.</p> <p>(ii) Paper Presented in the 2nd International Conference of Pure and Applied Sciences organized by the UMT Lahore on 5th -7th October, 2017.</p> <p>(iii) Paper presented in 9th Symposium on Analytical and Environmental Chemistry (July 24-26, 2006) Jointly Organized by Institute of Chemical Sciences, University of Peshawar and Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro at Bara Gali Summer Campus.</p> <p>(iv) Paper presented in 7th International and 17th National Chemistry Conference (February 26-28, 2007) Under the auspices of the Chemical Society of Pakistan Organized by Department of Chemistry, Gomal University, Dera Ismail Khan.</p> <p>(v) Paper presented in 18th National Chemistry Conference (February 25-27, 2008) under the auspices of the Chemical Society of Pakistan Organized by Institute of Chemistry, University of the Punjab, Lahore.</p> <p>(vi) Paper presented in Symposium on Recent Trends in Indigenous Chemical Research and Awareness on Data Presentation Skills (July 23-27, 2009) organized by Institute of Chemical Sciences, University of Peshawar at Bara Gali Summer Campus.</p> <p>(vii) Paper presented in 3rd International Conference on Environmentally Sustainable Development (August 16-18, 2009) at Comsats Abbottabad.</p> <p>(viii) Paper presented in First Spring Research Poster Symposium (March 20, 2010) organized by the Institute of Chemical Sciences, University of Peshawar.</p>
<p>List of Publications</p>	<ol style="list-style-type: none"> 1. Degradation of waste High-density Polyethylene into fuel oil using Basic Catalyst, M. R. Jan, J. Shah, H. Gulab, <i>Fuel</i>, 89 (2010) 474–480. (Impact Factor=3.520) 2. Plastic catalytic pyrolysis to fuels as tertiary polymer recycling method: Effect of process conditions, H. Gulab, M. R. Jan, J. Shah and G. Manos, <i>Journal of Environmental Science and Health Part A</i>, 45, (2010) 908–915. (Impact Factor=1.164) 3. Catalytic Degradation of Waste High-density Polyethylene into fuel products using BaCO₃ as a Catalyst, M. R. Jan, J. Shah, Hussain Gulab, <i>Fuel Processing Technology</i>, 91, (2010) 1428–1437. (Impact Factor=3.352) 4. Catalytic Conversion of Waste High-density Polyethylene into useful Hydrocarbons, M. R. Jan, J. Shah, Hussain Gulab, <i>Fuel</i>, 105, (2013) 595-602. (Impact Factor=3.520)

5. Assessment of heavy metals in various parts of plants, soil and air of some selected areas of district Charsadda, Pakistan, **Hussain Gulab**, Mazhar Mahmood, Sajid Ali & Fazal Akbar Jan, *Carpathian journal of earth and environmental sciences*, 10, 2, (2015) 219 – 224. (Impact Factor= 0.63)
6. The role of unsaturated gaseous hydrocarbons in minimization of sucrose loses, Zahid Hussain, Zahoor Mohammad1, **Hussain Gulab**, Khalid Mohammed Khan and Shahnaz Perveen, *Journal of food processing and preservation*, 39, 6 (2015) 2979–2983. (Impact Factor= 1.159)
7. One-pot synthesis, characterization, dna-binding and enzymatic studies of 4-methyl trans-cinnamate zinc(ii) mixed ligand complexes, Syeda Tahira Hafeez, Muhammad Nawaz Tahirb, Saqib Ali, Muhammad Iqbal, **Hussain Gulab** & Khurram Shahzad Munawar, *Journal of Coordination Chemistry*, (2015) (Impact Factor= 2.012)
8. Spectrophotometric method for quantitative determination of cefixime in bulk and pharmaceutical preparations using ferroin complex. M. Naeem Khan, A. Qayum, U. Ur Rehman, **Hussain Gulab**, and M. Idrees, *Journal of Applied Spectroscopy*, vol. 82, no. 4, September, (2015). (Impact Factor= 0.476)
9. Characterization of Thermo-catalytic Degradation Products of Waste High-density Polyethylene Using GC-MS (An Environmental Waste as Feedstock Chemicals) **Hussain Gulab**, Muhammad Rasul Jan and Jasmin Shah, *J. Chem. Soc. Pak.*, Vol. 37, No. 06, (2015). (Impact Factor= 0.345)
10. A case study evaluating water and salts removal capabilities of different brands of commercially available demulsifiers from slope oil emulsions. **Hussain Gulab**, Khadim Hussain, Fazal Akbar Jan, Muhammad Tahir. **H. Gulab**, F. A. Jan, K. Hussain, M. T. Khan, S. H. Hussain, *Petroleum & Coal* 57(5) (2015) 470-477.
11. Development of microwave assisted spectrophotometric method for the determination of glucose, Asif Ali, Zahid Hussain, Muhammad Balal Arain, Nasrullah Shah, Khalid Mohammad Khan, **Hussain Gulab**, Amir Zada. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 153, 15 (2016) 374–378. (Impact Factor= 2.353)
12. Conversion of waste-soap and soap-like materials into diesel and gasoline by catalytic pyrolysis using virgin soap as model, Zahid Hussain, Shaharin Anwar Sulaiman, Humaira Gul, Sana Farooq, Khalid Mohammad Khan, **Hussain Gulab** and Muhammad Yasin Naz, *The canadian journal of chemical engineering*, 94, (2016) 94–100. (Impact Factor= 1.231)
13. Catalytic co-pyrolysis of Eichhornia Crassipes biomass and polyethylene using

waste Fe and CaCO₃ catalysts, **Hussain Gulab**, Khadim Hussain, Shahi Malik, Zahid Hussain And Zarbad Shah, *International Journal of Energy Research*, Vol. 40, Issue 7 (2016) 940–951. **(Impact Factor=2.418)**

14. Synthesis and Characterization of Uniformly Coated Particles of Nickel Basic Carbonate shell/Copper Oxalate core. Farzana Haider, Ikram ul Haq, **Hussain Gulab** and Kafeel Ahmad Khan. *J. Chin. Chem. Soc.* (2016), 63,. **(Impact Factor: 0.648)**
15. Development and Validation of a New Spectrophotometric Method for the Determination of Cephalexin Monohydrate in Pure Form and Pharmaceutical Formulations. Muhammad N. Khan, Jalal Ahmad, Muhammad N. Jan, **Hussain Gulab** and Muhammad Idrees. *J. Braz. Chem. Soc.*, Vol. 27, No. 25, (2016) 912-918. **(Impact Factor: 1.129)**
16. Production of fuel by co-pyrolysis of Makarwal coal and waste polypropylene through a hybrid heating system of convection and microwaves. Khadim Hussain, Zahid Hussain, **Hussain Gulab**, Fazal Mabood, Khalid Mohammad Khan, Shahnaz Perveen and Mohammad Hassan Bin Khalid. *Int. J. Energy Res.* 40, 11 (2016) 1532–1540 **(Impact Factor: 2.418)**.
17. Production of a highly potent epoxide through the microbial metabolism of 3b-acetoxyurs-11-en-13b,28-olide by *Aspergillus niger* culture. Sajid Ali, Muhammad Nisar and **Hussain Gulab**. *Pharmaceutical Biology*, 54, 9, (2016) 1942-1946 **(Impact Factor: 1.241)**.
18. Pd/ZrO₂: An efficient catalyst for liquid phase oxidation of toluene in solvent free conditions. Mohsin Siddique, **Hussain Gulab** and Muhammad Saeed. *International Journal of Chemical Reactor Engineering*, 15, 2, (2017).
19. Analysis and Human Health Risk From Selected Heavy Metals in Water, Sediments and Freshwater Fish (*Labeo Rohita*, *Cyprinus Carpio*, *Glyptothorax Punjabensis*) Collected From Three Rivers in District Charsadda, Khyber-Pakhtunkhwa, Pakistan. Muhammad Idrees, Fazal Akbar Jan, Asmat Ara, Zakia Minhaj Begum, Mazhar Mahmood & **Hussain Gulab**. *Carpathian Journal of Earth and Environmental Sciences*. 12, (2017) 641 - 648.
20. Multivariate Analysis of the Heavy Metal Concentration in Vegetable and Soil Samples- A Case Study from District Charsadda and District Mardan. Muhammad Idrees, Zia Ur Rehman, Saiqa Bibi, Farooq Shah, Hussain Gulab, Liaqat Ali And Fazal Mabood. *Pakistan Journal of Botany*. 49, 3, (2017) 1167-1171 **(Impact Factor: 0.69)**

21. Synthesis, Characterization and Antibacterial Activity of a New Calcium Complex Using Sodium 2-Mercaptobenzothiazole and 1, 10-Phenanthroline as Ligands. **Hussain Gulab**, Zarbad Shah, Mazhar Mahmood, Syed Raza Shah, Sajid Ali, Muhammad Iqbal, Muhammad Naeem Khan, Ulrich Flörke and Shahid Ali Khan. *Journal of Molecular Structure*, 1154 (2018) 140-144. **(Impact Factor: 1.753)**
22. Effect of Process Conditions on Bio-oil Composition and Production from Catalytic Pyrolysis of Water Hyacinth Biomass. **Hussain Gulab**, Khadim Hussain, Shahi Malik and Muhammad Hussain. *Waste and Biomass Valorisation*, 10 (2019) 2595–2609. **(Impact Factor: 1.337)**.
23. Physicochemical Investigation of Some Thiobarbiturate Derivatives and Their Binding Study with Deoxyribonucleic Acid. Abbas Khan, Iltaf Khan, Momin Khan and **Hussain Gulab**. *Russian Journal of Physical Chemistry B*, 12 (2018) 485–494. **(Impact Factor: 0.58)**
24. Catalytic and noncatalytic conversion of spent fat oil into combustible gases and liquids. Zahid Hussain, Humaira Naz, Muhammad Y. Naz, **Hussain Gulab**, Shaharin A. Sulaiman, Khalid M. Khan, and Shazia Shukrullah. *Journal of Renewable and Sustainable Energy*, <https://doi.org/10.1063/1.5055628> **(Impact Factor: 1.337)**
25. Development of Spectrophotometric Method for the Determination of Azoxystrobin Fungicide after Derivatization. Kafeel Ahmad Khan, **Hussain Gulab**, Farzana Haider. *Biochemistry and Analytical Biochemistry* 7 (2018).
26. Multivariate and Univariate Analysis of Heavy Metals Concentration in Edible Oils. Muhammad Idrees, Fazal Kabir, **Hussain Gulab**, Muhammad Naeem Khan and Fazal Mabood. *Journal of Essential Oil Bearing Plants*. In Process **(Impact Factor: 0.6)**
27. Development of Spectrophotometric Method for the Determination of Difenconizol Fungicide, Kafeel Ahmad Khan, **Hussain Gulab**, Farzana Haider. *J. Anal. Bioanal. Tech.*, 9, (2018)
28. Binary copper(II) complex having stepped polymeric structure: synthesis, characterization, DNA-binding and anti-fungal studies. Muhammad Iqbal, Saqib Ali, Muhammad Nawaz Tahir, Muhammad Abdul Haleem, **Hussain Gulab**, Shah Naseer Ali, *Journal of the Serbian Chemical Society* (2019) OnLine Pages: 65-65.
29. Conversion of spent fat oil into liquid and gaseous fuels through clinker catalyzed pyrolysis. Z. Hussain, H. Naz, M. Rafique, **H. Gulab**, M. Y. Naz, S. A. Sulaiman and K. M. Khan. *Brazilian Journal of Chemical Engineering* 36, (2019) 949 – 957.

	<p>30. Investigation of a New Spectrophotometric Method for the Analysis of Ciprofloxacin Based on Microwave Assisted Diazotization, Zahid Hussain, Nadia Bashir, Hussain Gulab, Muhammad Asim, Khalid M. Khan, and Shahnaz PERVEEN, Analytical Sciences, <i>The Japan Society for Analytical Chemistry</i> 35 (2019).</p> <p>31. A validated Spectrofluorimetric Method for the Determination of Moxifloxacin in its Pure Form, Pharmaceutical Preparations and Biological Samples, Muhammad Naeem Khan, Waqar Ali, Zarbad Shah, Muhammad Idrees, Hussain Gulab and Adnan, <i>Analytical Sciences</i>, Online November, 2019.</p> <p>32. Exploring the Biosynthesized Gold Nanoparticles for their Antibacterial Potential and Photocatalytic Degradation of the Toxic Water Wastes Under Solar Light Illumination, Sajid Ali, Hazrat Ali, Mohsin Siddique, Hussain Gulab, Muhammad Abdul Haleem and Javed Ali, <i>Journal of Molecular Structure</i>, 1215 (2020) 128-259.</p> <p>33. Arbuscular Mycorrhizal Fungal Spore Density and Root Colonization in Weeds of Carrot Field at Charsadda, Pakistan, Tabassum Yaseen, Shezad Ahmad, Khushnood Ur Rahman, Hussain Gulab, Fayaz Asad, Abdul Waheed, Naved Akhtar and Rani Gul, <i>Pakistan Journal of Agricultural Research</i>. 33, 4 (2020) 342.</p> <p>34. Optical, Morphological and XRD profile Analysis of synthesized SnO₂ nanoparticles and its application for the photocatalytic degradation of Eosin Y in aqueous solution. Fazal Akbar Jan, Muhammad Aamir, Naimat Ullah and Hussain Gulab. <i>Journal of Chemical Society of Pakistan</i>. (Accepted)</p> <p>35. Metal oxide nanocomposites as anode and cathode for low temperature solid oxide fuel Cell. Kausar Shaheen, Zarbad Shahd, Hussain Gulab, Muhammad Bilal Hanif Hongli Suo, <i>Solid State Sciences</i> 102, 2020, 106-162.</p>
<p>Trainings</p>	<p>i. Five days training workshop attended on “Project Planning, Implementation and Evaluation” held on June 8-12, 2015 at HEC Islamabad.</p> <p>ii. Four days training/workshop attended on “Capacity Building of the Finance and Audit Departments of Public Sector Universities” held organized by HEC at Saidu Sharif Swat on October 11-14, 2015.</p> <p>iii. Two days training at Regional Center of HEC jointly organized by the Bacha Khan University Charsadda and HEC.</p>

- References:**
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