



# **DR. MOHSIN SIDDIQUE**

**Assistant Professor** (Physical Chemistry), Department of Chemistry, Bacha Khan University, Charsadda, KPK.

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## **Education**

- **Ph.D in Physical Chemistry**

National Centre of Excellence in Physical Chemistry, University of Peshawar [May, 2014]

- **M.Sc in Physical Chemistry**

Department of Chemistry, Hazara University, Mansehra, KPK [Feb, 2006]

- **B.Sc (Chemistry)**

University of Peshawar, KPK, Pakistan [Sep, 2003]

- **B.Ed (Education, Science)**

Allama Iqbal Open University, Islamabad, Pakistan.

- **F.Sc (Pre-Medical)**

FBISE Islamabad

- **Matric (Science)**

BISE Peshawar

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## **Scholarships and Awards**

- Indigenous **Ph.D.** fellowship (batch IV) by **Higher Education Commission of Pakistan, Islamabad, Pakistan [2007]**
  - 6 months fellowship at **Queen's University Belfast, United Kingdom**, Under, **HEC's International Research Support Initiative Programme [ Aug 2012- Feb 2013]**
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## **Professional Experience**

- Assistant Professor (Physical Chemistry), Department of Chemistry, Bacha Khan University, Charsadda, KPK. **[April 2014 up-to date]**

- **Team Member Quality Assurance Cell**, Bacha Khan University, Charsadda, KPK.[January 2015 up-to date]
  - **Examination Co-ordinator**, Department of Chemistry, Bacha Khan University, Charsadda, KPK.[Feb 2015 up-to date]
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### **Ph.D. Research Topic**

- Catalytic Oxidation and Degradation of Organic Compounds using Transition Metal and Metal oxides.

### **Research Interests**

- Nano Materials and Nanotechnology (Synthesis Characterization and Applications)
- Heterogeneous Catalysis
- Photocatalytic degradation of dyes
- Adsorption
- Kinetics

### **Instrumental Expertise**

- Gas Chromatography
  - UV-Visible Spectrophotometer
  - Thermo-gravimetric Analysis
  - HPLC
  - FT-IR
  - Atomic Absorption
  - Surface Area and Pore Size analyser
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### **Publications in International Journals**

<b>S/NO</b>	<b>TITLE OF RESEARCH PAPER</b>	<b>NAME AND IF OF JOURNAL</b>	<b>DETAIL OF PUBLICATIONS VOL., PAGE# YEAR</b>	<b>NAME OF AUTHORS</b>
1.	Photocatalytic Activity of Bismuth Ferrite Nanoparticles Synthesized via Sol-Gel Route	Zeitschrift Fur Physikalische Chemie 2.030	233(5): 595–607 2019	Mohsin Siddique , Noor Mohammad, Muhammad Saeed
2.	Calotropis gigantea leaves assisted biosynthesis of ZnO	Environmental progress and Sustainable Energy	<a href="https://doi.org/10.1002/ep.13408">https://doi.org/10.1002/ep.13408</a> 2020	Muhammad Saeed, Mohsin Siddique

	and Ag@ZnO catalysts for degradation of rhodamine B dye in aqueous medium	1.730		
3.	Ag–Ni and Al–Ni nanoparticles for resistive response of humidity and photocatalytic degradation of Methyl Orange dye	Materials Chemistry and Physics 3.408	244, 2020, 122748	Kausar Shaheen, Hongli Suo,, ZarbadShah,, Lintha Khush, Tofail Arshad, Sher Bahadar Khan, MohsinSiddique
4.	Green synthesis of cobalt oxide nanoparticles using Citrus medica leaves extract: characterization and photo-catalytic activity	Zeitschrift Fur Physikalische Chemie 2.030	DOI: 10.1515/zpch-2019-1583 2020	Mohsin Siddique, Noor Muhammad Khan, Muhammad Saeed, Sajid Ali
5.	Exploring the biosynthesized gold nanoparticles for their antibacterial potential and photocatalytic degradation of the toxic water wastes under solar light illumination	Journal of Molecular Structure 2.011	Volume 1215, 5 September 2020, 128259	Sajid Ali, Hazrat Ali, Mohsin Siddique, Hussain Gulab, Muhammad Abdul Haleem, Javed Ali
6.	Ag-Co3O4: Synthesis, characterization and evaluation of its photo-catalytic activity towards degradation of rhodamine B dye in aqueous medium	Chinese journal of chemical Engineering 2.627	doi:10.1016/j.cjche.2018.02.024	Muhammad Saeed, Majid Muneer, Mohsin Siddique, Muhammad Hamayun, Nadia Akram, Nida Mumtaz
7.	Synthesis and Characterization of Zinc Oxide and Evaluation of its Catalytic Activities for Oxidative Degradation of Rhodamine B Dye in Aqueous Medium	Zeitschrift Fur Physikalische Chemie 2.030	231(9) 2017	M Saeed and Mohsin Siddique
8.	Pd/ZrO2: An Efficient Catalyst for Liquid Phase Oxidation of Toluene in Solvent Free Conditions	International Journal Of Chemical Reactor Engineering 1.107	15(2) 2017	Mohsin Siddique, M saeed, M Ilyas, H gulab
9.	Degradation of methyl orange	Oxidation communications/0209-4541 0.230	1-1/13 2017	M saeed, S Adeel, A Haq, S

	catalysed by Pt/Al <sub>2</sub> O <sub>3</sub> in aqueous medium			kiran, SG khan, Mohsin Siddique and M shahzad
10	Synthesis, Characterization and Catalytic Activity of Pd Supported Zirconia for the Oxidation of Benzyl Alcohol in Liquid Phase Solvent Free Conditions	Journal of the chemical society of Pakistan (0253-5106) 0.300	38(3)/ 454 2016	Mohsin Siddique, Mohammad Ilyas and Muhammad Saeed
11	Degradation Of Direct Black 38 Dye Catalyzed By Lab Prepared Nickel Hydroxide In Aqueous Medium	Global NEST Journal/ 1108-4006, 1790-7632 1.010	18/309 2016	M Saeed. A Haq, M Muneer, S adeel, M hamayun, M Ismail, M younas, Mohsin Siddique
12	Kinetics of Lab Prepared Manganese Oxide Catalyzed Oxidation of Benzyl Alcohol in the Liquid Phase	International Journal of Chemical Kinetics / 1097-4601, 0538-8066 1.540	47(7)/ 447 2015	MUHAMMAD SAEED, MOHAMMAD ILYAS, MOHSIN SIDDIQUE
13	Mixed-valence manganese oxide catalysed oxidation of benzyl alcohol and cyclohexanol in the liquid phase	Progress in Reaction Kinetics and Mechanism/1471-406X, 1468-6783 0.682	39(4)/375 2014	M Ilyas, M saeed, M sadiq and Mohsin Siddique
14	Oxidative Degradation of Oxalic Acid in Aqueous Medium Using Manganese Oxide as Catalyst at Ambient Temperature and Pressure.	Arabian Journal for Science & Engineering (2191-4281) 0.865	38(7)/ 1739-1748 2013	Muhammad Saeed, Mohammad Ilyas, Mohsin Siddique, Aziz Ahmad
15	Liquid-phase aerobic oxidation of benzyl alcohol catalyzed by mechanochemically synthesized manganese oxide	Chinese Science Bulletin/ 1001-6538 1.711	58/ 2354 2013	Mohammad Ilyas, Mohsin Siddique, Muhammad Saeed
16	Oxidative Degradation of Phenol in Aqueous Medium Catalyzed by Lab Prepared	Journal of the chemical society of Pakistan (0253-5106) 0.300	34(3)/ 626 2012	M saeed, M Ilyas and Mohsin Siddique

	Cobalt Oxide			
17	Catalytic Decolorization of Methylene Blue in Aqueous Solution using Cobalt Oxide	Journal of the chemical society of Pakistan (0253-5106) 0.300	34(5)/ 1197	2012
				MILYAS AND MOHSIN SIDDIQUE

### Conferences Attended/Papers Presented

- 19th National Chemistry, Conference, Organized by Kohat University of Science and technology, Kohat June 09-11,2009
  - 8<sup>th</sup> International and 20<sup>th</sup> National Chemistry, Conference, Organized by Dept.of Chemistry ,Quaid e Azam University, Islamabad , Pakistan Feb 15-17,2010
  - 1<sup>st</sup> National Conference on Material Processing , Characterization, Properties and their Economic Potential, Organized by University of Peshawar 1-3 December, 2010
  - 10<sup>th</sup> International and 20<sup>th</sup> National Chemistry, Conference, Dept.of Chemistry and Bio-Chemistry, University of Faisalabad , Faisalabad , Pakistan Nov 21-23,2011
  - British council of Pakistan at Agriculture University Peshawar, Development of sustainable and collaborative research work. 21-22 Oct 2010
  - 9<sup>th</sup> international and 21<sup>st</sup> national chemistry conference, Department of Chemistry, Karachi University, Pakistan, 14-16 March 2011.
  - International Bioenergy conference organized by University institute of Biochemistry and Biotechnology, Arid Agriculture University, Rawalpindi, Pakistan, 18-20<sup>th</sup> April 2012.
  - 12<sup>th</sup> international and 24<sup>st</sup> national chemistry conference , Organized by Institute of Chemical Sciences, BahauddinZakria University, Multan, Pakistan, 28-30 October 2013.
  - 13<sup>th</sup> international and 25<sup>st</sup> national chemistry conference , Organized by Institute of Chemistry, University of Punjab , Lahore, Pakistan, 20-22 October 2014
  - National symposium on Kinetics and Catalysis (KC-2011) Organized by NCE physical Chemistry, University of Peshawar, Pakistan. 26-28 September 2011. (Got Second prize in Poster Competition)
  - 1<sup>st</sup> National Conference on Material Processing , Characterization, Properties and their Economic Potential, Organized by University of Peshawar (1-3 December, 2010)
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## **Referees**

**Professor Dr. Mohmmad Ilyas (Rtd)** Catalysis Lab, NCE in Physical Chemistry, University Of Peshawar KPK Pakistan : 091-9216766. [mohilyas52@yahoo.com](mailto:mohilyas52@yahoo.com)

**Dr. Muhammad Saeed (Assistant Professor)** Department of Chemistry, Govt. College University, Faisalabad, Pakistan. 03469010903. [pk\\_saeed2003@yahoo.com](mailto:pk_saeed2003@yahoo.com)