Name: **Muhammad Sufaid Khan, (PhD Brasil)**
Designation: Assistant Professor (IPFP)
Department of Chemistry, University of Malakand,
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Name	Muhammad Sufaid Khan	Date of Birth	01 March, 1984
Sex	Male		
Nationality	Pakistani	Passport	FJ4125592
Religion	Islam	Major	Islam

PhD in Physical Chemistry	Instituto de Química da UNESP Araraquara, SP, Brasil
Research	Studies of oxygen reduction activity and stability of carbon-supported PdNi and PdCu nanoparticles of different compositions
M.S/Mphil Physical Chem	National Centre of Excellence in Physical Chemistry, University of Peshawar, Peshawar Khyber Pukhtunkhwa (KPK), Pakistan
Research	Thermogravimetric Studies of PVC, PS & LDPE by Commercially Mixed Oxides as Catalysts

Education Background

Certificate/ Degree	Marks	Field	Year attended	Institute	Board/Uni
S. S. C	669/850	Science	2000-01	GHSS School.(Kot) MKD	BISE Swat
F.Sc	772/1100	Pre-Medical	2001- 03	O.E.A Batkhela	BISE MKD
B.Sc	379/550	Chem, Zoo & States	2004- 06	GPGJ College Swat	University of Malakand
M.Sc	849/1200	Physical Chem	2006- 08	ICS	University of Peshawar
M. Phil/M.S	3.6/4.00	Physical Chem	2011- 13	NCE in Physical Chemistry	University of Peshawar
PhD	A grade	Physical Chem	2014-18	Institute of Chemistry	UNESP (Brasil)

Employment Record

1- Worked as lecturer (Teaching) in Capital Degree College Peshawar (March, 2009 to Feb, 2014)
2- Assistant Professor (IPFP) Department of Chemistry University of Malakand 27 December, 2018 Till Date

Academic experience	1- Worked as internee in the G, C, Peshawar (Evening Shift) (2010-2011) 2. Participation in " One Day Poster Competition on Energy Crises" Organized by UET Peshawar (march, 20, 2012) 3. Participated in 11th International and 23rd National Chemistry Conference Organized by NCE in Physical Chemistry University of Peshawar, Peshawar, Pakistan (Oct, 15-17, 2012) 4. 11th national spring poster exhibition I.C.S University of Peshawar, Pakistan 2012. 4. 26th National and 14th International Chemistry Conference Chemical Society of Pakistan (CSP) Oct,5-8, 2015 Jointly organized by Department of Chemistry and Department of Biochemistry & Biotechnology, The Islamia University of Bahawalpur, Pakistan. 5. XV Brazilian MRS Meeting, in Campinas-SP, from 25th to 29th of September 2016. 6. 46th World Chemistry Congress, 40a Reunião Anual da Sociedade Brasileira de Química, and IUPAC 49th General Assembly held from July 7th to 14th, 2017 in São Paulo - Brazil. 7. XVI Brazilian MRS Meeting, in Gramado-RS, from 10th to 14th of September 2017.
Social practice	Worked as Volunteer in Environmental protection Society
Awards	Two year merit scholarship for M.Phil/M.S study TWAS-CNPq fellowship for PhD study, UNESP Brasil
Interests	Research, Book reading, internet surfing, Cricket

Research topic at Master level

 Removal of basic dye from aqueous solution by nanoscale zerovalant iron (NZVI).

Research topic at M.Phil level

Thermogravimetric studies of polyethylene, poly vinyl chloride and Polystyrene using commercial mixed oxides as catalysts

Research topic at PhD level

Studies of oxygen reduction activity and stability of carbon-supported PdNi and PdCu nanoparticles of different compositions

RESEARCH INTERESTS

Electrochemistry, Catalysis, synthesis and characterization of nanoparticles and alkaline fuel cell technology.

Courses Tought MSc Level: MSc Previous Physical Chemisry, MSc Final, Quantum Mechanics spectroscopy

Courses Tought BS-Level: BS- 6th Symester Physical Chemistry.

Additional Responsiblility: Member of the chemical store mentaince committee.

Publications list

1. **Muhammad Sufaid Khan** *et al.,*. Removal of basic dye from aqueous solution by nanoscale zerovalant iron (NZVI) as adsorbent. J. Chem. Soc. Pak., Vol. 35, No.3, p. 745-748, 2013.

2. Jan Nisar, **Muhammad Sufaid Khan**, Mudassir Iqbal and Muhammad Anas Khan. Catalytic Thermal Decomposition of Polyethylene Determined by Thermogravimetric Treatment, J.Chem.Soc.Pak., Vol. 36, No. 5, p. 829-836, 2014.

3. Jan Nisar, **Muhammad Sufaid Khan,** Munawar Iqbal**.** Thermal decomposition study of polyvinyl chloride in the presence of commercially available oxides catalysts. Advances in polymer technology, v. 0.1, p. 1-8, 2017.

4. Jan Nisar, **Muhammad Sufaid Khan** Pyrolysis of Polystyrene: The influence of commercially Available Oxides as Catalysts. Volume 41, No. 06, December 2019 issue. J. Che,Soci. Pk.

Status: Accepted

5.Abdur Rashid; Abida Farooqi; Sardar Khan; Salman Zahir; shah Jehan: Seema Khattak: **Muhammad Sufaid Khan**: Raees Khan. Fluoride prevalence in groundwater around fluorite mining area in the flood plain of river Swat, Pakistan. Science of the Total Environment. Vol. 635, p. 203-215, 2018.

6. Jan Nisar, Ghulam Ali, Niamat Ullah, Iftikhar Ahmad Awan, Munawar Iqbal, Afzal Shah, Sirajuddind, Murtaza Sayed, Tariq Mahmood, **Muhammad Sufaid Khan.** Pyrolysis of waste tire rubber: Influence of temperature on pyrolysates yield. Journal of Environmental Chemical Engineering Vol. 6, p. 3469–3473, 2018.

7. Rozina Khattak, **Muhammad Sufaid Khan**, Iftikhar Imam Naqvi. Mechanism of the electron-exchange reactions between mixed ligand Fe (III) complexes and cyano complex of Fe (II). Bulgarian Chemical Communications. Vol. 50, issue 1, p. 38-44, 2018.

8. Jan Nisar, Mudassir Iqbal, Munawar Iqbal, Afzal Shah, Mohammad Salim Akhter, Sirajuddin, Rafaqat Ali Khan, Israr Uddin, Luqman Ali Shah and **Muhammad Sufaid Khan**. Decomposition Kinetics of Levofloxacin: Drug-Excipient Interaction. Z. Phys. Chem. 2019.

9. Rashid A, Khan S, Ayub M, Sardar T, Jehan S, Zahir S, **Khan MS**, Muhammad J, Khan R, Ali A, Ullah H. Mapping human health risk from exposure to potential toxic metal contamination in groundwater of Lower Dir, Pakistan: Application of multivariate and geographical information system. Chemosphere. 2019.

10. Adsorptive Removal of Cetyltrimethyl Ammonium Bromide (CTAB) Surfactant from Aqueous Solution: Crossbreed Pilot Plant Membrane Studies. Tenside Surfactants Detergents, accepted 2019.

11. Abdur Rashid, Sardar Khan, Muhammad Ayub, Sultan Alam, **Muhammad Sufaid Khan**, Salman Zahir, Luqman Ali Shah, Tariq Sardar, Raees Khan , Muhammad Abdullah. Health risks assessment, source apportionment and toxic heavy metal contamination in groundwater around mixed industrial and mining region of Adenzai, Northern Pakistan.

Journal: Cleaner Production.

Status: Submitted

12. **Muhammad Sufaid Khan** *et al*., An efficient electrocatalytic activity of PdNi alloys for oxygen Electro-oxidation in an acidic and alkaline environments.
Status: Process of submission

13. PdCu carbon supported electrocatalysts are an effective materials toward oxygen reduction reaction for fuel cell cathode. **Muhammad Sufaid Khan** *et al*.,
Status: Process of submission

14. **Muhammad Sufaid Khan,** Sultan Alam, Rozina Khattak, Sabir Khan, Abdur Rashid, Jan Nisar, Adri Huda. Novel Approach for PdCu Electrocatalysts Supported by Carbon Mixed with Transition Metal Oxide Catalytic Activities: Acidic verses Alkaline Environments. Applied catalysis B: Environmental. Status: Submitted

15. PdCu 1:1 activity and stability in acidic verses alkaline solutions and correlation with effect of carbon mixed oxides supported materials, **Muhammad Sufaid Khan** *et al.,*

Status: Process of submission

16. Assessing groundwater quality and its source apportionment in district Malakand by using multivariate statistical techniques. Abdur Rashid, Muhammad Ayub, **Muhammad Sufaid Khan**, Sardar Khan. Manuscript ID: ac-2019-00117s

Submitted Journal: Analytical Chemistry

17. Comparative study of Thermal and Catalyzed Reaction of Polypropylene: Isothermal Kinetics. Jan Nisar, **Muhammad Sufaid Khan** et al.,

Status: Submitted JCS of Pakistan

18. Geochemical modelling risk exposure, source provenance and distribution of pollution hotspot in groundwater of District Mardan, Pakistan. Juma Muhammad, Raees khan, Tariq Sardar, Sardar Khan,**Muhammad Sufaid Khan**, Mr Muhammad Ayub. Submission no: MICROC_2019_1088

Status: Submitted to Microchemical Journal

19. Geochemical control and geostatistical assessment in groundwater of district Malakand, Pakistan: Distribution and source apportionment"Abdur Rashid, Sardar Khan, Muhammad Ayub, **Muhammad Sufaid Khan**, Juma Muhammad. Submission ID: WARM-D-19-00538.

Status: Submitted to Water Resources Management

Participation in events / conferences

1. **KHAN, M. S**.; MILIAN, R. P.; GALLO, I. B. C.; VILLULLAS, H. M. Studies of oxygen reduction activity and stability of carbon-supported PdNi nanoparticles of different compositions. 46th World Chemistry Congress, 40a Reunião Anual da Sociedade Brasileira de Química, São Paulo – Brazil, 9th to 14th of July 2017.
2. **KHAN, M. S**.; MILIAN, R. P.; GALLO, I. B. C.; VILLULLAS, H. M. Carbon-supported PdCu nanoparticles: activity for oxygen reduction in alkaline solutions and stability studies. XVI Brazilian MRS Meeting, Gramado (RS), 10th to 14th of September 2017.
3. **KHAN, M. S**.; MILIAN, R. P.; GALLO, I. B. C.; VILLULLAS, H. M. Synthesis and characterization of carbon-supported PdNi nanocatalysts for electroreduction of oxygen. XV Brazilian MRS Meeting, Campinas (SP), 25th to 29th of September 2016.

4. **KHAN, M. S**.; MILIAN, R. P. ; GALLO, I. B. C.; VILLULLAS, H. M. Carbon-supported PdCu and PdNi nanoparticles for oxygen reduction electrocatalysis. 26th National and 14th International Chemistry Conference Chemical Society of Pakistan (CSP) 5th to 8th of October 2015.
5.

REFERENCE:

1) Associate Prof. Dr. Khalida Akhtar

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University of Peshawar.

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2) Assistant Prof. Dr. Rozina Khattak

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