

Tayyaba Rabnawaz

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Objective: I am seeking a bright career in the field of research and development(R&D).

Education

- | | |
|--------------------|---|
| Sep 2017- Sep2018 | <p>M.Res. Material Research (2:1)
Queen Mary, University of London, United Kingdom
<u>Research Project:</u> "Characterization of novel Layered double hydroxides (LDH) for dental materials applications to prevent demineralisation process"
The aim of this study was to Investigate the F-releasing/recharging properties of Ca-Al LDHs and after incorporating it in two polymers,over 12-13 hour.
Supervisor: Prof Andy Bushby (SEMs, QMUL)
Co-Supervisor: Prof Mangala Patel (Institute of Dentistry - Bart's and The London)</p> |
| Sep 2014- Aug 2016 | <p>M.Sc. Physics
International Islamic University Islamabad, Pakistan
<u>Research Project:</u> Synthesis and characterization of copper oxide Nano-particles by green synthesis using by azadirachta indica and chemical co-precipitation method. This work is focused on the synthesis techniques comparison.
Supervisor: Dr Shumaila Sajjad (HEC Approved Supervisor)
Grades: CGPA 3.29/4.00 or 74.22%</p> |
| Aug 2011 -Jan2014 | <p>B.Sc. Physics
University of the Punjab, Lahore, Pakistan
Main Subjects: Mathematics, Physics and Computer Science</p> |

Work Experience

- | | |
|-------------------|---|
| Dec 2018-Current | <p>Student Researcher
NANOREGMED LTD UK</p> |
| Feb 2017-Sep 2017 | <p>Researcher Associate
Pakistan Institute of Nuclear Science and Technology, Islamabad, Pakistan
Research Project: Develop metal-oxide Nano-clusters based function nanomaterials of controlled morphology and chemistry for application in sensing and energy storage.
Supervisor: Dr. Amjad Nisar (Principal Scientist ,Physics Division)</p> |

Aug 2016-Jan 2017

Research Associate

International Islamic University, Islamabad, Pakistan

- Develop understanding of Material Characterization Techniques (SEM,XRD,FTIR,UV-VIS,EDX)

Area of Expertise

➤ **Material Synthesis Techniques**

(Green Synthesis, Co-precipitation, Sol gel method, CVD, Hydrothermal methods)

➤ **Material Characterization Techniques**

- Scanning Electron Microscope (SEM)
- Transmission electron microscopy (TEM)
- Powder X-ray diffraction (XRD)
- Ultraviolet-visible spectroscopy UV-VIS)
- Fourier-transform infrared spectroscopy (FTIR)
- X-ray photoelectron spectroscopy (XPS)
- Small-angle X-ray scattering (SAXS)
- Light-Optical Microscopy
- Ion Selective electrodes (ISE) (fluoride ions, calcium ions)
- Particle size analysis
- Energy dispersive X-ray spectroscopy (EDX)

➤ **IT Techniques**

- Computer literacy and proficiency in the use of MS Office (Word, Excel, Power point, Access and OriginPro)
- Programming languages Including Turbo (C, C++), Visual Basic, python

➤ **Technical software**

- CES Edu-Pack 2017 (taught by Prof James Busfield,QMUL)
- Laminate Analysis Program LAP (taught by Prof Ton peijs,QMUL)
- DAWN Diamond Software (taught by Dr Himadri Gupta QMUL)
- 4 channel software to detect ions release rate, image and numeric data (Used in Project)

Training and Certificates

1. Revolutionary discovery of Gravitational waves conference organized by Nanotech Society of Physics, Pakistan May 2015
2. 3rd conference of Frontiers of Nanoscience and Nanotechnology, Pakistan Institute of Nuclear Science and Technology, Islamabad, Pakistan October 25-27,2016
3. 9th conference of chemistry in engineering and life science, Pakistan atomic energy Commission, Pakistan September 19-21,2017
4. Participate as Speaker in Global Experts Meeting on Frontiers in Nanomedicine and Drug Delivery, Nano Delivery 2019, London, United Kingdom March18-20,2019

Upcoming event Participation

5. 2nd International Conference on Tissue Science and Regenerative Medicine, London,
United Kingdom June 06-07, 2019

Recent publications

1. Functionalisation of graphene oxide. Rabnawaz T, Seifalian AM. Submission to Nano Review and Experimental. 2019.

Additional Information

- Confident working with vulnerable people.
- Time management, planning and organisational skills.
- Strong oral communication skills developed through delivering presentations and scientific meeting.
- Positive ability to develop long-term professional relationship with key members of the scientific community.
- I can present technical data in the form of charts to management and have good complex problem-solving skills.
- Good analytical skills for design purposes and can apply of scientific processes to industrial activities. Good practical skills / technical knowledge.

Languages: English(fluent), Urdu (mother tongue)

Interest: Research, Travel

Reference

1. Prof James Busfield

Professor of Materials /Director of Industrial Engagement

Queen Mary University of London

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<https://www.sems.qmul.ac.uk/staff/j.busfield>

2. Prof Andy Bushby

Professor in Materials

Queen Mary University of London

Tel : +44 (0)20 7882 7100

Email: a.j.bushby@qmul.ac.uk

<http://www.sems.qmul.ac.uk/a.j.bushby>

3. Dr Haixue Yan

Senior Lecturer (Associate Professor)

Queen Mary University of London

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Email: h.x.yan@qmul.ac.uk

<https://www.sems.qmul.ac.uk/staff/h.x.yan>

4. Dr. Amjad Nisar

Principal Scientist

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