**Curriculum Vitae**

* ***Personal Information:***

Name: Dr. HumairaShahzad

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* ***Fields of Research Interest:***

**Synthesis:** graphene, nanomaterials, microhydrogels, metal organic frameworks.

**Environmental Chemistry:** CO2 adsorption, photocatalysis

**Supramolecular Chemistry:** molecular self-assembly, molecular recognition, host-guest chemistry.

**Chemical Biology:** bio-molecule Sensing, e.g. nucleotides, nucleic acids.

**Inorganic Chemistry:** Coordinated polymers; Synthesis, Characterization and Crystallography.

* ***Education:***

**2011–2014** PhD in Chemistry, Pohang University of Science and Technology (POSTECH), Korea.***Thesis title****:*Environmental remediation using Graphene based nanomaterials.

**2007–2011** M.Phil.in Chemistry, Institute of Chemical Sciences (ICS) , University of Peshawar, Pakistan.

**2003–2005** M.Sc in Inorganic Chemistry, Institute of Chemical Sciences (ICS) , University of Peshawar, Pakistan.

* ***Awards and Honors:***

1. “Official recipients of XIXth Star Award” and qualified honorable mention in SAP’ prestigious profile book titled “GALAXIES OF WHO’S WHO IN PAKISTAN 2008” 31 Mar, 2009.

2. Selected as Female Lecturer in Chemistry (B-17) Higher Education Department by NWFP Public Service Commission Peshawar, Pakistan- 2009.

3. Nominated by HEC from Pakistan and subsequently selected to participate in the 59th Meeting of Nobel Laureates in Lindau, Germany (dedicated to Chemistry) from 28 June to 3 July 2009.

* ***Scientific Skills/Experimental Techniques:***

Inorganic/ Organic synthesis, Nanochemistry, Polymer chemistry, Supramolecular chemistry. Synthesis, characterization of Graphene based nanomaterial and environmental applications by Gas adsorption and photocatalysis.

Characterization tools such as: AFM, SEM, FTIR, XRD, Raman, XPS, NMR; MS; Spectroscopy: UV-Vis, IR, Fluorescence, Spectrofluorophotometer; Photocatalytic technique, X-ray. Crystallography; Chromatography, GC, HPLC.Chemical vapour deposition technique (CVD) for graphene, Hall-effect measurements, Gas adsorption (Belsorp) and surface area measurement (BET).

* ***Conferences:***

1. The Second ChemComm International Symposium on Supramolecular Chemistry, Nov 17,2010, Korea.
2. EPB workshop, Center for Electro-Photo Behavior in Advance Molecular System, Jan 6-8, 2011, Korea.
3. AMS Mini-Symposium “Frontiers in Supramolecular and Material Chemistry, Oct. 26, 2011, POSTECH, Korea.
4. International Workshop on Post-Fukushima Challenges in Nuclear Safety and Environmental, Contamination, June 4-5, 2012, Korea.
5. POSTECH International Symposium on Bio-imaging, Nov, 1-2, 2012, Korea.
6. The Symposium/workshop of Computational Science (SWOCS), Nov 17, 2012.POSTECH, Korea.
7. 1st National Conference on “Materials processing, characterization, properties and their economic potentials-2010” University of Peshawar, KPK, Pakistan.
8. National Conference-2010 at Baragali summer campus, KPK, Pakistan.
9. First Spring Research Poster Symposium- 2010 at ICS, University of Peshawar, KPK, Pakistan.
10. Symposium on recent trends in indigenous chemical research and awareness on data presentation skills”- July, 2009 at ICS, University of Peshawar, KPK, Pakistan.
11. Training program on “ Research methodology and scientific writing of manuscripts” , 24-26th Feb 2016.
12. “ISESCO women in Science Conference: Contribution of Pakistani women in scientific and social development” at Quaid-i-AzamUniversity , Islamabad, Pakistan, 08th March,2016.
13. “27th National and 15th International chemistry conference at department of chemistry, University of Malakand, 22-25 Aug,2016.

* ***Teaching Experiences:***

2007 – to date Lecturer at Institute of Chemical Sciences, University of Peshawar,

Pakistan.

2005 – 2007 Lecturer at Frontier Model School & College, Peshawar, Pakistan.

***Publications:***

1. Highly selective CO2 capture by S-doped microporous carbon materials. *Carbon* **2014**, *66*, 320-6.
2. Environmental applications using graphene composites: water remediation and gas adsorption. *Nanoscale* **2013,** *5* (8), 3149-71. *‡Co-first authors*
3. Graphene-SnO2 composites for highly efficient photocatalytic degradation of methylene blue under sunlight. *Nanotechnology* **2012,** *23* (35), 355705-12.
4. Highly conductive and solution-processable micro-hydrogels of nanoparticle/graphene platelets produced by reversible self-assembly and aqueous exfoliation*. Journal of Materials Chemistry A***2013**, *1* (41)*,* 12900-8.
5. Ionophores with 2n-Crown-n topology: anion sensing via aliphatic C-H…A- Hydrogen bonding. *Organic Letters***2014**, *16* (2), 334-7.
6. A Ni-carbon material derived from Ni-MOF74 for remarkable room temperature hydrogen storage. **2016**,(submitted)..*‡Co-first authors*
7. Synthesis of Selective Biomolecule Chemosensor and Fabrication of Its Highly Fluorescent Graphene Complex. *The Journal of Physical Chemistry B* **2017**.*121*,5007-16.
8. Charged Probes: Turn-On Selective Fluorescence for RNA. *Org. Biomol. Chem.* **2017**. DOI: 10.1039/C7OB02423A