# Uzma Hira

Address: House # B-11-325-15A, Street # 1, Zafar Dar Street, Khalid Road, Muslim Gunj, Sheikhupura, Pakistan Nationality: Pakistan Age: 22-07-1987 Gender: Female Marital status: Married CellNo: +92 334 7497978 E-Mail:uzma2030@qmail.com



## Objective

To accept a challenging position in anorganization and grow on basis of mypersonal abilities and to serve the community, improve thelives of othersand provide them efficient and effective services to the bestof my knowledgeand become a successful and result oriented person

### Education

- Lahore University of Management Science, Ph.D., Chemistry, 2019, 3.66/4.00
- University of Peshawar, M.Phil., Physical Chemistry, 2013, 4.00/4.00(Distinction)
- Allama Iqbal Open UniversityIslamabad, B.Ed., Chemistry/Biology, 2011, 644/900
- University of Peshawar, M.Sc., Chemistry, 2010, 886/1200
- University of Punjab, B.Sc., Chemistry, Biology, 2007, 549/800

### Achievements

#### Scholarships & awards

- Fully Funded Ph.D. Scholarship
- Two years merit scholarship for M.Phil. study
- District level scholarships throughout in academics
- 2nd position in 4rth spring research poster exhibition competition held at ICS,UOP
- 1st position in M.Phil course work
- 1st position in the SSC exams
- 3rd position in M.SC exams
- Scottish government Ph.D. research travel grant 2016 for Pakistani females through British Council
- Nomination for Lindau Nobel Laureate meeting 2017 by Higher Education Commission Pakistan (HEC) and Pakistan Institute of engineering and Applied sciences (PIEAS)
- 6 months fellowship awarded by HEC to work in Technical University of Denmark (DTU) in 2017
- 2 months fellowship awarded by European union commission project within 2020 Horizon at Alba Synchrotron Light Source, Spain in 2018

## M.Phil. Research Project

 Synthesis of Uniform Fine Particles of ZrO<sub>2</sub> and Electrodeposition of Cu-ZrO<sub>2</sub> Nanocomposite Coating on Steel Surface

## Ph.D. Research Project

• Synthesis and Properties of High-Temperature Thermoelectric Perovskite Oxides for Efficient Energy Harvesting

## Publications

- <sup>1.</sup> Hira, U.; Grivel, J. C.; Christensen, D. V.; Pryds, N.; Sher, F., Electrical, magnetic and magnetotransport properties of Na and Mo doped Ca<sub>3</sub>Co<sub>4</sub>O<sub>9</sub> materials *RSC adv*. **2019**, *9*, 31274.
- 2. Hira, U.; Pryds, N.; Falak, S., Thermoelectric properties of dual doped Bi<sub>2</sub>Sr<sub>2</sub>Co<sub>2</sub>O<sub>y</sub>-based ceramics *J.Electron. Mater.***2019**, *48*, 4616-4626.
- 3. Hira, U.; Falak, S., Structural, Magnetic and High-temperature thermoelectric properties of  $La_{0.4}Bi_{0.4}Ca_{0.2}Mn_{1-x}Co_xO_3$  ( $0 \le x \le 0.3$ ) Perovskites, *J. Magn. Magn. Mater.***2018**, 452, 64-72.
- <sup>4.</sup> Hira, U.; Han, L.; Norrman, K.; Cristensen, D. V.; Pryds, N.; Sher, F, High-temperature thermoelectric properties of Na- and W-doped Ca<sub>3</sub>Co<sub>4</sub>O<sub>9</sub> system, *RSC adv*. **2018**, *8*, 12211.
- 5. Akhtar, K.; Hira, U.; Khalid, H.; Zubair, N., Uniform fine particles of ZrO<sub>2</sub> as reinforcement filler in the electrodeposited Cu-ZrO<sub>2</sub> nanocomposite coating on steel substrate, *J. Alloys Compd.***2019**, *772*, 15-24.
- <sup>6.</sup> Khan, A. A.; Hira, U.; Iqbal, Z.; Usman, M.; Falak, S., Structural, magnetic and magnetocaloric properties of  $CoFe_{2-x}Mo_xO_4$  ( $0.0 \le x \le 0.3$ ) ferrites, *Ceram. Int.***2017**,43, 7088-7093.
- 7. Khan, A. A.; Hira, U.; Falak, S., Large relative cooling power of Bi-doped La<sub>0.8-</sub> xBi<sub>x</sub>Sr<sub>0.08</sub>(Ca<sub>0.55</sub>Ba<sub>0.45</sub>)<sub>0.12</sub>MnO<sub>3</sub> (x= 0.0, 0.1 and 0.3) perovskites: Magnetic and magnetocaloric properties, *Ceram. Int.***2017**, *43*, 7351-7357.
- <sup>8.</sup> Akhtar, K.; Haq, U. I.; Hira, U., Synthesis and characterization of uniform zirconia particles by homogeneous precipitation method, *High Temp. Mater. Proc.***2013**, *32*, 391-395.

#### **Conferences/Seminar attended**

- Contribution of NCE in Physical Chemistry in National Development (Jan. 17, 2011)
- National Symposium onKinetics and Catalysis (27-30Sep, 2011) organizedby National Centerof
- Excellence inPhysical Chemistry University of Peshawar
- Oneday Research PosterSymposium in PhysicalChemistry(Dec. 23, 2011)
- NAYSScience Forum 2013 held at UOP on9th April 2013, organized by National Academy ofYoung Scientists Pakistan incollaborationwithSciencesociety & PakistanScientific & Technological Information Centre
- 4rth Spring Research Poster Exhibition (April 11, 2013) organizedby ICS, UOP
- International Conferenceon Physical and Environmental Chemistry (ICEPC-2013) held at Hotel ElitesNathia Gali on Sep. 9-11, 2013 organized by NCEPC, UOP
- Oneday ChemistryConference onChemical trends2013atLUMS Sep. 272013
- 3<sup>rd</sup> Conference on Frontiers of Nanoscience and Nanotechnology Oct. 25-27, 2016
- Ph.D. annual poster symposium, Technical University of Denmark (DTU), Nov. 18, 2017
- 37<sup>th</sup> annual international conference on thermoelectrics (ICT-2018) and 16<sup>th</sup> annual European conference on thermoelectrics (ECT-2018), 1<sup>st</sup> to 5<sup>th</sup> July, 2018, Caen, France

## Work Experience

Assistant Professor of Physical Chemistry at School of Physical Sciences (SPS), University of the Punjab since Sep. 2020

Research and Scientific writing with <u>https://nowalchemy.com/</u>: May 2020-Aug. 2020

*Scientific writing with Primary Research group Inc. USA on the project:* Energy Storage Technologies: Government Funding, Research, Scholarly & Commercial Developments Dec. 2019-April 202**0** 

*Lahore University of Management Science*, Pakistan, Lahore, Punjab September 2013 – 2019 Teaching/Research Assistant in the Department of Chemistryand Chemical Engineering

*Rawalpindi College of commerce*, Pakistan, Kamra, Punjab September 2010 - December 2010 Lecturer (Chemistry)

## Skills

Instruments Handling -

Fouriertransform infrared spectroscopy (FTIR)

X-raydiffractrometer(XRD)

- Scanning electron microscope (SEM)
- Oven, Thermostat, Metal (Cutting, Cleaning and
- Polishing) instruments,
- Microhadrnesstester(Schimadzu, HMV-2)
- Gamry instrument (REF 3000-17134
- Potentiostat/Galvanostat/ZRA)
- Ball-on-disc tribometer
- Vibratingsample magnetometer (VSM)
- ULVAC-RIKO ZEM3
- NETZSCH LFA-457 laser flash system

### References

- Associate Professor Dr. Falak Sher |Head ofPhysics Department Lahore University of Management Science Email: <u>fsher@lums.edu.pk</u>
- Professor Dr.Nini Pryds| Section Head |DTU Energy Technical University of Denmark (DTU) Email: <u>nipr@dtu.dk</u>

#### Languages

- English Proficient
- IELTS: Reading 6.5, Writing 6.5, speaking 6.5, listening, 6.0 Overall Band score: 6.5
- Urdu Native