

# MUHAMMAD UMAR FAROOQ

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## **OBJECTIVE**

To be able to make meaningful and lasting contribution in the field of chemistry and to work in a competitive environment and to strive for difficult goals that will help me enhance my knowledge and bring out the best.

## PROFESSIONAL EXPERIENCE

### October 2010 to till now

Oct 2010 till now continued teaching and scientific research experience as **Assistant Professor** of Chemistry at **School of Physical Sciences / Institute of Chemistry**, University of the Punjab, Lahore, these include practical training and conducting research activities.

## Sep 2006 - Jul 2010

PhD Research Scholar in the College of Science, Beijing University of Chemical Technology, Beijing.

### **Current Projects**

• HEC concept paper project,

Microwave-assisted synthesis of metal nanostructures and their possible applications

 Synthesis and characterization of thin metal films as simple transparent conductors

## **Instrument Handling**

For the past six years I have been operating many sophisticated instrumentation, some of which are still in my use. These include;

• Capillary Electrophoresis System (PDA, UV, Laser Induced Fluorescence)

- Microwave Synthesis & Extraction Workstations
- **HPLC** (PDA,UV and Fluorescence)
- CHNS analyser
- Food & Beverage analyser (UV)
- **GC** (ECD)
- FT-IR

### **EDUCATIONAL QUALIFICATION**

## Ph.D., Analytical Chemistry

**July 2010** 

## Beijing University of Chemical Technology, Beijing, China.

*Dissertation*: Quantitative analysis of sulfonamide antibiotics in edible meats. *Areas of interest*: development of analytical techniques, applications of carbon nanotubes for adsorption, use of nanomaterials in analytical chemistry, trace determination of drugs and pollutants, adsorption of drugs and metal ions onto different adsorbents, exploration of renewable energy resources

## M.Sc., Chemistry

March 2004

Institute of Chemistry, University of the Punjab, Lahore, Pakistan.

Thesis: Synthesis of tanning and re-tanning agents and their characterization

#### RESEARCH EXPERIENCE IN Ph. D.

- Development of Capillary Electrophoretic separation and analysis methods
- Development of sample preparation methods for the trace analysis of drugs (sulfonamides)
- Development of solid-phase extraction methods
- Development of microwave-assisted extraction (MAE) methods
- Use of different adsorbents for the adsorption of drugs
- Use of different types of pristine multiwalled carbon nanotubes for the adsorption of sulfonamide antibiotics from biological samples
- Chemical modification of pristine multiwalled carbon nanotubes and their application in adsorption experiments
- Synthesis of silver nanoparticles and their evaluation for the adsorption of drugs
- Microwave-assisted extraction

#### **PUBLICATIONS**

## **Published papers**

- 1. Applications of a novel sample preparation method for the determination of sulfonamides in edible meat by CZE, Chromatographia, 69: 1107-1111.
- 2. Synthesis of polyamidoamine dendrimer-grafted silica with microwave assisted protocol, **Reactive and Functional Polymers**, **70: 129-133**.

- 3. Microwave-assisted preparation of a  $\beta$ -cyclodextrin-based stationary phase for open tubular capillary electrochromatography, **Analytical Letters**, **43**: **2372**-**2380**.
- 4. Phytochemical investigation and evaluation of antibacterial and irritant potential of different extracts of whole plant of Solanum Xanthocarpum Schrad and Wendl, **Journal of Chinese Chemical Society**, **57**: **1257-1262**.

## **Submitted & Completed papers**

- 1. Evaluation of adsorption potential of three different multiwalled carbon nanotubes as SPE adsorbent for sulfonamides in edible meat.
- 2. Potential of modified multiwalled carbon naotubes as solid-phase extraction adsorbent for the preconcentration of sulfonamides in edible meats.

#### ACHIEVEMENTS & AWARDS

- Received "Certificate of Excellency" in PhD research work
- Received CSC Scholarship for Ph. D. study in China
- Achieved 1<sup>st</sup> position in M.Sc. and awarded "University Gold Medal" and "Muhammad Ali Gold Medal" in Chemistry
- Twice achieved "Government Merit Scholarship" in M. Sc.
- Achieved Talent merit scholarship in bachelor and intermediate.

#### SEMINARS/CONFERENCES

- Abstract: International Conference for Young Chemists 2008, Penang, Malaysia.
- Attended: International Conference on Polymer Processing 2007, Beijing University of Chemical Technology, Beijing, China.
- Attended: Integrated solid waste management, Beijing University of Chemical Technology, Beijing, China.
- Attended: Promoting green/sustainable chemistry in the present scenario of scientific development, Beijing University of Chemical Technology, Beijing, China.

### SKILLS/EXPERIENCES

- Have experience of MS Office and other academic related software
- Have one year diploma of "Chinese language"
- Delivered lectures on the structure and working of Beckman Coulter
  P/ACE MDQ Capillary Electrophoresis system during PhD studies

### PERSONAL INFORMATION

Nationality:PakistaniMarital Status:Single

**Permanent Address:** D-315, Shah Faisal Street, Inside Lohari Gate,

Lahore, Pakistan. 54000

### REFERENCES

## Prof. Dr. Yi Yang

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Beijing University of Chemical Technology, Beijing, China.

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# Dr. Ping Su

Lecturer

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