

## BEATRIZ ADRIANA ROCHA GUTIÉRREZ

rochafcq@gmail.com October, 2016

#### **POSITIONS**

Full Time Professor, 2013-Present Chemistry Department Autonomous University of Chihuahua Chihuahua, México

#### **EDUCATION**

PhD Aug 2010

University of Texas at El Paso (UTEP), Environmental Science and Engineering **Dissertation:** "Study of PBDEs in wastewater, water and sludge of El Paso del Norte border region using SBSE TD/GC-MS"

**Committee:** Wen-Yee Lee, Ph.D., (Chair), Shane Walker, Ph.D., Arturo Woocay Ph.D., Jorge Gardea-Torresdey Ph.D., Irasema Coronado Ph.D., Douglas D. Rittmann. Ph.D.

MS July 2005

University of Texas at El Paso (UTEP), Master in Science (Chemistry)

**Thesis:** "Method development for Pesticides Analysis in breast milk using Stir Bar Sorptive Extraction followed by TD/GC/MS"

Advisor: Wen-Yee Lee

**BS** July 2003

Autonomous University of Chihuahua (UACH), Environmental Chemical Engineer.



### HONORS AND AWARDS

### **CONACYT. 4t. Youth Research Science Congress.**

2016

Research undergraduate student awarded as the best oral presentation in the area of Chemistry and Biology.



SACNAS 2008

Brief Outstanding presentation at the Research Expo.

#### RESEARCH EXPERIENCE

## **Autonomous University of Chihuahua (UACH) /Grupo Bafar**, Chihuahua **Position**, PI

2015

• Electrolytic process for the production of disinfectants used in the meat industry from brackish water. Grupo Bafar/Project Project Project

## **Autonomous University of Chihuahua (UACH)/Faculty of Chemistry**, Chihuahua **Position**, PI 2014

• New analytic techniques for the instrumental analysis and degradation for a group of emergent pollutants in wastewater/Internal research Project.

#### **TEACHING EXPERIENCE**

## Autonomous University of Chihuahua (UACH), Chihuahua Research Professor, Chemistry Department

Aug 2013-Present

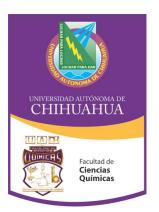
- Wastewater treatment (Master in Biotechnology)
- Physical chemistry I (Undergraduate)
- Sanitary engineering (Undergraduate)
- Environmental Impact Assessment (Undergraduate)
- **Separation Techniques**(Undergraduate)

# Doctoral Students Advised (External Co-Adviser)

• M.C. Enrique Valdez Cerda, "Evaluation of the presence and accumulation of polybrominated diphenyl ethers in sediments of two rivers of Nuevo Leon".



Facultad de Ciencias Químicas, circuito Universitario, Campus Universitario # 2 , Chihuahua, Chih., C.P. 31125 Tels. (614) 236-60-00



#### **Masters Students Advised**

• Esmeralda Blanco Enríquez, "Evaluation of the removal of Polycyclic Aromatic Hydrocarbons (PAHs) by microorganisms".

#### (External Co-Director)

• Milton Carlos Hermosillo Muñoz, "Traceability of As in agricultural water irrigation in the north of Chihuahua".

#### **Bachelor Students Advised**

- Victoria Reyes Fierro, "Detection of persistent organic pollutants in wastewater".
- Brenda Mejía Ortiz "Analytical techniques for the analysis of emerging pollutants in water".
- Iris Josefina Alvarado Venegas, Gael Armando Villalobos Pizaña. "Analysis of water quality from a biodigester treated with granular media filters".
- Carmen del Rocio Caraveo Castro, "Quality assessment of water supply purification systems in rural communities".

#### SELECTED PUBLICATIONS

#### **Books**

Zavala-Díaz de la Serna, F.J., Rocha-Gutiérrez, B.A., Peralta-Pérez, M.R., Selected Topics of Biochemistry, Chihuahua, AMAZON, ISBN 13:9781507637111, 2015.

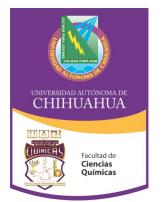
Zavala-Díaz de la Serna, F.J., Rocha-Gutiérrez, B.A., Peralta-Pérez, M.R., Use of the computational tools of the century XXI in the study of the biochemistry (Chapter). Selected Topics of Biochemistry, Chihuahua, AMAZON, Vol. 1, Pags. 131, 2015.

#### Journal Publications

Rocha-Gutiérrez, B.A., Lee W.Y., & Walker, S., "Mass balance and mass loading of Polybrominated Diphenyl Ethers (PBDEs) in a tertiary wastewater treatment plant using SBSE-TD-GC/MS.IWA," Water Science and Technology, 73(2), 2016, pp. 302-308.

Rocha-Gutiérrez, B.A., Peralta-Pérez, M.R., y Zavala-Díaz de la Serna, F.J., "Revisión global del problema de los contaminantes emergentes PBDEs en México,





un caso en particular," Revista Internacional de Contaminación Ambiental, 3(31), 2015, pp. 311-320.

Rocha-Gutiérrez, B.A., & Lee, W.Y., "Investigation of Polybrominated Diphenyl Ethers in Wastewater Treatment Plants Along the US and Mexico Border: a Trans-boundary Study," Water, Air & Soil Pollution, 224(1), 2013, pp.1-13.

Rocha-Gutiérrez, B.A., & Lee, W.Y., "Determination and comparison of polybrominated diphenyl ethers in primary, secondary, and tertiary wastewater treatment plants," International Journal of Environmental Analytical Chemistry, 92(13), 2012. pp. 1518-1531.

#### PRESENTATIONS AND INVITED LECTURES

Thirteenth International Symposium on Recent Advances in Environmental Health Research, "Method Development for the Analysis of a Group of Emergent Pollutants (PBDES) in Sewage Sludge Using (HSSPME-GC-MS)", September 2016, Jackson, Mississippi.

**Symposium of Water Pollution** "Invited speaker: Emergent Pollutants in wastewater: Global presence and risk assessment", April 2016, Chihuahua, Chih, MX.

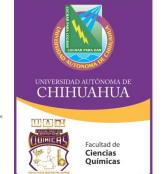
**5to. International Conference of Chemistry, Biology and Agronomy**, "Method development for the analysis of a group of emergent pollutants (PBDEs) in sewage sludge using (HSSPME-GC-MS)", September 2015, Autonomous University of Guadalajara.

**IWA 4th Yong Water Professionals Conference**, "Mass balance and mass loading of Polybrominated Diphenyl Ethers (PBDEs) in a tertiary wastewater treatment plant using SBSE-TD-GC/MS", February 2015, Guanajuato.

**Invited speaker**, "Persistent Organic Pollutants in wastewater", 2012, Centro de Innovación Avanzada en Tecnologías Competitivas (CIATEC).

**COURI symposium**, "Method Development for the Analysis of DDT, DDD, and DDE in Cow Milk", 2011, El Paso, TX.





#### PROFESSIONAL TRAINING

### Graduate Seminar in Environmental Research.

Toluca Tech, Toluca, MX, July 2016

Course: Emergent Pollutants in wastewater: Global presence and risk assessment.

### **XL** Week of the Chemistry

Department of Chemistry UACH, Chihuahua, October 2015 Course: Alternative treatments for cleaning contaminated sites.

#### **Seminar of Environmental Sciences**

Autonomous University of Querétaro, Chemistry Department, Querétaro, 2012 "Persistent Organic Pollutants in wastewater: regulations and risk".

#### LANGUAGES

**Spanish**: Native Language

English: Exam Toefl (550)

#### **AVAILABLE THESIS PROJECTS**

#### For master in biotechnology

- Simultaneous determination of inorganic ionic species by ion chromatography for monitoring of wastewater used in agricultural irrigation.
- Monitoring of veterinary pharmaceuticals commonly used in cattle feeding practices in a biodigester.

