

Yiwei Miao

Analytical Chemist

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TDI-Brooks International, Inc.

14391 S. Dowling Rd, College Station, TX 77845

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www.tdi-bi.com

PROFESSIONAL EXPERIENCE

- Laboratory Manager/Director of Analytical Chemical Services, TDI-Brooks International, Inc., April 2017 - Present
- Associate Scientist/Site Lead for Curiosity, Cerilliant, March 2015 - March 2017
- Instrument Analyst, TDI-Brooks International, Inc., October 2011 - March 2015
- Trace Metals Analyst, Energy Laboratories, June 2010 - October 2011
- Undergraduate Research Assistant, Texas A&M University, January 2009 - May 2010
- Student Instructor/Tutor, Texas A&M University, August 2009 - May 2010
- Administrative Assistant, Kolkhorst Petroleum, June 2008 - May 2010

KEY ACHIEVEMENTS - TDI BROOKS INTERNATIONAL, INC.

Laboratory Manager/Director of Analytical Chemical Services:

- Coordinate processing and analysis of geochemical samples
- Assist personnel with instrumental analyses
- Compile and review geochemical data for interpretive reports
- Research new instruments, methods, and analytes
- Develop new and improve existing analytical methods
- Validate new/improved analytical methods
- Performed routine maintenance, troubleshooting, and minor repairs on instruments
- Author and revise SOPs, training manuals, and other technical reports
- Train personnel on theory, principles, and applications of analytical methods and instrumentation

Instrument Analyst:

- Conducted GC analyses for volatiles and semivolatiles (HS, FID, ECD, MS)
- Completed analytical components of custom and/or R&D projects
- Performed routine maintenance, troubleshooting, and minor repairs on instruments
- Processed and interpreted sample data from multiple analytical techniques
- Improved, created, and validated new analytical methods (GC/MS)
- Performed method detection limit, limit of detection, and limit of quantitation studies
- Authored and revised SOPs, training manuals, and other technical reports
- Coordinated and conducted numerous offshore environmental studies
- Collected seawater and sediment samples in the field
- Performed wet chemical analyses in the field (pH, conductivity, DO, COD, BOD, etc.)

KEY ACHIEVEMENTS - CERILLIANT

- Analyzed neat materials and solution standards for purity, accuracy, homogeneity, and isotopic composition using LC/MS QTOF, GC/FID, GC/ECD, and GC/MS
- Completed analytical components of custom and/or R&D projects (LRMS, HRMS, MS/MS)
- Performed routine maintenance, troubleshooting, and repairs on instruments
- Processed and interpreted sample data from multiple techniques
- Peer reviewed GC, GC/MS, and LC/MS QTOF data
- Improved, created, and validated new analytical methods
- Conducted "Out of Specification" (OOS) investigations and authored technical reports
- Site director for Curiosity Labs™ program that taught and conducted science experiments with local children
- Hazardous waste disposal



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KEY ACHIEVEMENTS - ENERGY LABORATORIES

- Performed sample digestions and leaches (EPA Methods 200.2, 3010, 3050).
- Conducted trace metals analysis for mercury, arsenic, antimony, and selenium via atomic absorption (electric hydride AA, EPA Methods 3114B, 245.1, 7470A, 7471A).
- Conducted trace metal analyses for trace metals and sulfur using inductively coupled plasma-optical emission spectrometer (ICP-OES, EPA Method 200.7).
- Performed method detection limit, limit of detection, and limit of quantitation studies

KEY ACHIEVEMENTS - TEXAS A&M UNIVERSITY

Undergraduate Research Assistant:

- Conducted experiments using various genetic, biochemical, and microbiological techniques
- Prepared microbiological media and solutions
- Ordered and procured chemicals and supplies

Student Instructor/Tutor:

- Instructed supplemental biology and chemistry course of approximately 30 freshmen
- Tutored individual students for chemistry (general, organic, analytical, and bio), math, and statistics

FORMAL EDUCATION

- Texas A&M University, College Station, TX—B.S. Genetics, 2010

PROFESSIONAL TRAINING

- OpenLab CDS Chemstation Master Class - Agilent Technologies, September 2016
- High Resolution Mass Spectrometry - American Society for Mass Spectrometry, June 2016
- Hazardous Waste Operations and Emergency Response (HAZWOPER) - TEKS, May 2016
- Basic Offshore Survival and Emergency Training - Falck Alford, August 2012
- Gas Chromatography (ECD, MS, and FID), B&B Labs, 2011 - 2012
- Atomic Absorption (AA), Energy Laboratories, 2010 - 2011
- Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES), Energy Laboratories, 2010 - 2011

MEMBERSHIPS

- American Society for Mass Spectrometry, 2016 - Present