

Ellington Geological Services

X-ray Diffraction Applications Scientist; Clay Specialization
RohmTek Applications Laboratory
Houston, TX 77043

Job Description:

The Sr. XRD Applications Scientist is the technical lead in the operation of X-ray powder diffraction instruments and in the interpretation of the data derived from these instruments. In addition, the person in this position is expected to contribute to the research strategies of the organization by developing new analytical diffraction approaches for organic and inorganic materials characterization. The position will be responsible for developing methodologies for the lab and field, leading the XRD lab team, and support field rental unit operations including the training and troubleshooting for field operators.

Primary Responsibilities:

Working knowledge of X-ray powder diffractometer construction and operation, and the ability to:

- operate a diffractometer
- reconfigure a diffractometer (reflection, transmission, grazing angle, variable temperature, etc.)
- align a diffractometer
- change the X-ray tube in a diffractometer
- troubleshoot and carry out minor repairs of a diffractometer
- be the X-ray diffraction subject matter expert for RohmTek
- utilize diffraction data to identify materials, quantitate small amounts of one phase in another, identify sample/diffractometer contributions to data sets, etc.
- recognize changes expected in powder patterns related to temperature, compression, diffractometer configuration, etc.
- perform sample characterization using a variety of solid-state and physical-chemical analytical techniques
- Quantify clays and other minerals associated with sedimentary rock formations

Background and Experience

- MS or PhD in a STEM field related to the use of XRD; Chemistry, Physics, or other related field
- 5-10 years of experience in XRD operation
- A demonstrable record of research and publications related to XRD and other forms of Mineralogy

- Background in mining, oil and gas, or other subsurface exploration and exploitation preferred
- Experience using JADE, TOPAZ, and EVA

About RohmTek

RohmTek is an analytical laboratory support company providing **instrument rental, instrument optimization, and analytical laboratory services** to various industries. We understand that our clients have diverse requirements for data acquisition, analysis, and interpretation and we enable them to create a fit for purpose program based on their unique needs. We focus on **project management, communication, and technical transparency** to deliver the results that our clients need.

RohmTek is predominantly an operator in North America with headquarters located in Houston, Texas and employees located across Texas and Colorado.

RohmTek provides equal employment opportunities to all employees and applicants for employment and prohibits discrimination and harassment of any type without regard to race, color, religion, age, sex, national origin, disability status, genetics, protected veteran status, sexual orientation, gender identity or expression, or any other characteristic protected by federal, state or local laws.

This policy applies to all terms and conditions of employment, including recruiting, hiring, placement, promotion, termination, layoff, recall, transfer, leaves of absence, compensation and training.