
Role Specification

Role title: Associate Chemist

Department: Catalysis

Date: May 2022

The role of Associate Chemist will be based in our Technology Centre, located near Columbus, Ohio

An overview of the role within the Company

The role is an integral position within our Catalysis Division supporting Velocys Senior Analytical Chemist in catalyst development activities, through the synthesis and characterisation of heterogeneous catalysts for commercial use in microchannel reactors.

The role is varied and typical tasks will include recording details relating to catalyst synthesis preparation experiments, writing or editing equipment and procedural Standard Operating Procedures, evaluating hazards associated with lab-scale catalyst synthesis methods, data entry and assisting in the preparation of technical reports. Activities may include experimental work using flammable or toxic gases, liquids, or solids.

The position is also responsible for assisting in the determination of methods and actions to improve catalyst performance and for the operation and calibration of equipment used in the analysis of chemical and physical properties of heterogeneous catalysts. Therefore, experience of lab-scale synthesis of materials such as filters, sensors and or heterogenous catalysts coupled with proven practical experience in materials characterisation such as X-Ray Diffraction (XRD), Porosimetry, laser light scattering, Thermo Graphic Metric (TGA) /Differential Scanning Calorimetry (DSC), static and dynamic chemisorption and practical size analysis would be a distinct advantage. As would experience of software such as General Structure Analysis (GSAS) and Diffraction Analysis of Nanomaterials (DIANNA). A proven track record of developing intellectual property would also be beneficial.

While this position would suit an individual in the early stages of their career development in the field of Chemical Sciences, the successful candidate will be required to draw upon strong fundamental chemical experience. Furthermore, they will be able to apply excellent critical thinking and innovative approach to problem solving. They will also be able to demonstrate a practical 'hands on' attitude and a wiliness to work on both solo projects and collaboratively with in a team environment.

Responsibilities

- Interact with the leading Analytical Chemist to conduct wet chemistry for the preparation of supports and catalysts.
- Operate analytical equipment and accurately record and report data.
- Maintain an accurate and detailed electronic lab record book.
- Collaborate with other team members to help specify, identify, and qualify new laboratory equipment.
- Prepare and modify Standard Operating Procedures for activities conducted by members of the department.
- Understand the commercial goals of the company and apply these to work conducted

- Analyse data, synthesise conclusions from same and prepare reports summarising experiments and their results.
- Maintain a clean, orderly and safe working environment.
- Remain current with relevant scientific literature and contribute to company knowledge base.
- Understand and communicate chemical hazards to minimise risk and follow safety instruction in conduct of experiments.

Organisational interactions

- Immediate supervisor title: Director of Catalysis
- Next level supervisor title: Vice President of Catalysis
- Collaboration with other individuals and groups: Manufacturing, and Engineering

Education and experience

- BSc or MSc degree in Chemistry or the Physical Sciences.
- Strong fundamental chemical knowledge
- Practical experience of basic laboratory equipment and safe operating methods and procedures.
- Working knowledge of Microsoft Office; Word, PowerPoint and Excel
- Experienced in the delivery of complex technical information in a concise manner, utilising robust written and presentation skills.
- Knowledge of operating in an Electronic Laboratory Notebook (ELN) environment, such as ScienceCloud, would be an advantage.
- Understanding of how to effectively operate in a multi-disciplined, cross organisational team environment
- Comfortable working independently and taking initiative but knowing when to seek assistance and validation

Contact

Please send your CV and any additional information to support your application to:

careers@velocys.com.

