Position Title: Process Research Engineer, Baytown, TX

Job Description:
• ExxonMobil Chemical Company (EMCC) manufactures basic chemicals (ethylene, p-xylene), intermediates and synthetics and a broad range of specialty and commodity polymers and is supported by EM Chemical Research, based in Baytown near Houston Texas. As a division of the EM Chemical Research organization, Process Research is responsible for the development of new process technology to support the world-wide EMCC organization.
• The core skills employed in EMCC Process Research are process engineering fundamentals, catalysis, and modeling. Work programs are progressed via integrated teams made up of individuals with skill concentrations in all these three areas.
• Process Research Engineers within the Baytown Technology and Engineering Complex (BTEC) support Aromatics, Olefins, Oxo Alcohols, Fluids, Polyethylene, Polypropylene, Adhesions, Butyl, and Specialty Elastomers technical activities.

Primary Functions:
• Responsible for coupling fundamental knowledge of catalysis and kinetics with reaction/process engineering skills to develop and scale-up new process technology and/or new catalytic systems. Interface with business units and program leaders to develop technical targets.
• Apply the principles of mass and heat transfer to concept development. Employ process simulation and thermodynamics software as required.
• Specify, design, install, and commission new equipment/technology required to scale-up processes from small laboratory scale to commercial application. Evaluate and design unit/equipment modifications.
• Conduct process and catalyst development experiments at laboratory and pilot plant scale. Troubleshoot units and equipment. • Monitor and optimize the efficiency, output, and safety of lab and pilot plant operations.
• Collect, analyze, and interpret data from lab, pilot plant, and commercial operations. Apply models as appropriate.
• Ensure that all aspects of process operations meet specified internal and external regulations/standards including safety and environmental regulations/standards.
• Document results, prepare reports, and present work product.
• Evaluate and manage research program costs and schedule.
• Leverage and work cooperatively with others to efficiently achieve general interest team solutions.
• Participate in cross-discipline scale-up and commercial operation teams to ensure smooth technology handoff.
• Originate novel patentable concepts, leading to the development of intellectual property assets.

Job Requirements:
• Doctor of Philosophy (PhD) in Chemical Engineering

Preferred Knowledge/Skills/Abilities:
• Process simulation
• Process design/engineering
• Process development and scale-up
• Heterogenous catalysis
• Kinetic model development and application
• Reactor development and design
• Competitive technology analysis
• Project management and stewardship
• Project economics
• Hydrocarbon and/or Polymer processing knowledge
• Plant operations
• Intellectual property assessment/procurement

ExxonMobil is an Equal Opportunity Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability or protected veteran status.

Apply for this position at: http://careers.exxonmobil.com/openings/PhD-Process-Research-Engineer-5328-25224BR