

POSITION TITLE: Graduate or Post Doctoral Researcher - Nanostructured Fischer-Tropsch Catalysis

DEPARTMENT: Department of Energy

AGENCY: National Energy Technology Laboratory (NETL)

LEVEL: Post-doctoral or early-career scientists

POSITION INFORMATION: Full-Time, up to two years renewable

DUTY LOCATION: Pittsburgh, Pennsylvania

WHO MAY BE CONSIDERED: United States Citizens, LPRs, & Foreign Nationals with appropriate approval

SUMMARY:

The Molecular Engineering Team at NETL is seeking post-doctoral or early career researchers in the area of nanostructured Fischer-Tropsch catalysis. Expertise in one or more of the following general areas is desired: nanomaterials synthesis, physical characterization of materials, and catalytic performance evaluations. The Molecular Engineering Team is composed of synthetic chemists, physical/analytical chemists, and chemical engineers who collaboratively focus on the design, synthesis, and characterization of new catalysts and sorbents for a variety of fossil energy applications. The candidate will be responsible for working within this team to initiate and conduct research in the area of Fischer-Tropsch catalysis with a focus on using nanostructured catalyst systems, encapsulated/confined catalyst systems, and pore engineered catalyst systems to create controlled deviations from classical Anderson-Shulz-Flory product distributions, as well as other catalytic performance enhancements. Microwave heating, plasmonic excitation, and other non-traditional excitation/energy sources are also being evaluated to assess how well these non-equilibrium approaches can be utilized for manipulating Fischer-Tropsch chemistry. Material systems of interest include nanostructured Fe and Co materials, graphene/carbon nanotubes, metal organic frameworks and zeolitic type materials, and high surface area heterostructures of all these material systems.

KEY REQUIREMENTS:

- Applicants must be U.S. Citizens or approved Foreign Nationals
- **Minimum qualifications:** An M.S. in Chemistry, Physics, Chemical Engineering, Materials Engineering, or a related field, with experience and publications in the synthesis or experimental characterization of nanostructured catalyst systems. **Preferred qualifications:** A Ph.D. in Chemistry, Physics, Chemical Engineering, Materials Engineering, or related field.

HOW TO APPLY:

Applicants should apply through the Oak Ridge Institute for Science and Education (ORISE) program. The ORISE Program provides opportunities for undergraduate students, recent graduates, graduate students, postdoctoral researchers, and faculty researchers. NETL utilizes the ORISE program to support research and work within NETL's Office of Research & Development.

- Interested applicants should complete the online application at <http://www.ornl.gov/netl/>

- In the online application list **Christopher Matranga** as your requested mentor. This will associate your application with this job posting. Please send a CV to Dr. Christopher Matranga christopher.matranga@netl.doe.gov.
- If you have additional questions please contact Nancy Andres, Nancy.Andres@netl.doe.gov, who is the NETL ORISE program contact.