

Chemical Engineer-005156 [Houston, TX]

Description

SuperPower, a wholly-owned subsidiary of Philips Electronics has an excellent job opportunity for a Chemist/Chemical Engineer position. SuperPower manufactures flexible, thin-film-based High Temperature Superconductor (HTS) tapes for electric power and other applications at its Schenectady, NY location (<http://www.superpower-inc.com>).

SuperPower's R&D operation has been consolidated at Houston, TX. SuperPower R&D scientists are located in Dr. Selvamanickam's group at University of Houston through an elaborate joint collaborative project between the company and University. Details of the operation at the University of Houston can be found at http://www2.egr.uh.edu/~vselvama/Templates/Site_Home.htm.

Responsibilities:

- The Chemist/Chemical Engineer will be responsible for developing innovative materials chemistries for a variety of thin film deposition techniques such as metal organic chemical vapor deposition (MOCVD), solution deposition, and electrodeposition in order to achieve desired microstructures and properties.
- Additionally, the Chemist/Chemical Engineer will be responsible for development of the above process technologies to obtain optimum thin film growth.
- The Chemist/Chemical Engineer would also be responsible for design, procurement, construction, troubleshooting and repair of relevant tools within his/her purview for implementing the optimal chemical processes. This position would require use of several spectroscopic and other characterization tools to conduct in-depth analysis of thin film structures and employing the information to develop novel materials chemistries, and thin film processes to achieve the targeted properties.
- While oxide and metal films on flexible metal substrates are the primary types of materials of interest, this position would also involve research on growth of semiconductor films on metal and dielectric substrates.

Requirements:

- Ph.D. in Chemistry or Chemical Engineering or Materials Science/Engineering with Chemistry emphasis, preferably with post-doc experience. Considerable experience in advanced materials synthesis, complex chemistries and thin film chemical processing is a must.
- The candidate should be an expert in several spectroscopic and other techniques for chemical analysis and must have demonstrated experience in skillfully utilizing the interpreted data for advanced materials development.
- Preference will be given to those who have demonstrated a track record in developing solutions to processing issues based on thorough scientific analysis to achieve targeted properties. Industrial R&D experience is desirable.
- Excellent interpersonal, communication skills and ability to interact with both R&D scientists and manufacturing engineers is required.