



Department of Chemistry | College of Liberal Arts & Sciences

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The Department of Chemistry at Portland State University is seeking Ph.D. students for the research laboratory of Professor Mingdi Yan.

Dr. Yan's research focuses on functional surfaces and interfaces. It lies at the interface of organic chemistry, materials chemistry, and nanotechnology. We develop new methods for the immobilization of polymers, small molecules, and biomolecules, and conduct fundamental studies to better understand the surface chemistry that governs the immobilization processes. We are also developing methodologies to create surfaces that can provide functions such as biocompatibility and molecular recognition for biomaterial and biomedical applications. Current projects include glycan microarrays, nanoparticle and graphene synthesis and functionalization, biosensors, polymer nanostructures by self-assembly, funded by NIH, PRF, and the Oregon Nanoscience and Microtechnologies Institute (ONAMI). Many of these projects are collaborative efforts with researchers in Chemistry, Biology, and Physics nationally and around the world. Surface chemistry is inherently multidisciplinary, and our research involves a variety of activities including organic/polymer synthesis and characterization, nanofabrication, surface- and bio-analysis. Students graduated from our laboratory found employment in academia and industrial sectors including semiconductor, biotechnology, and chemical analysis.

Located in the Pacific Northwest's high technology industry cluster, Portland State University offers graduate students active collaborations with the region's top researchers and state-of-the-art equipment. The chemistry department cultivates partnerships with local research institutions and industries, such as OHSU, and is an energetic member of ONAMI. Recently, the university expressed its ongoing commitment to become one of Oregon's top research hubs by establishing the Center for Electron Microscopy and Nanofabrication, a facility that houses the most modern instruments and attracts researchers from across the region.

Portland State University resides in downtown Portland, Oregon and is surrounded by numerous cafes, pubs, and restaurants. Adjacent to the university is the Portland cultural district, home to the Portland Symphony, the Portland Center for the Performing Arts, the Portland Art Museum, and the Northwest Film Center. The city of Portland provides students with a unique experience where in minutes one can shed urban life for the great outdoors. Hiking, mountain biking, skiing, windsurfing, and kayaking are among the popular outdoor activities accessible to Portlanders.

Applicants should submit a current curriculum vita, a cover letter, and three references. Send all application materials to Professor Mingdi Yan address below or electronically to [yanm@pdx.edu](mailto:yanm@pdx.edu): Department of Chemistry, Portland State University, Portland, OR 97207-0751. Review of applications will begin on Feb. 1, 2009.