Curriculum Development for Radiochemistry Education Program at Pennsylvania State University

Executive Summary

The submitted proposal primarily consists of a curriculum development of radiochemistry education course namely *Laboratory Experiments in Applied Nuclear and Radiochemistry*. The curriculum will complement theory learned in *Chem 405/Nuc E 405 Nuclear and Radiochemistry* and provide hands-on experimental learning to students. For the proposed curriculum, approximately ten experiments are planned.

The proposed project will further improve nuclear education infrastructure at Penn State and provide subject matter expertise to nuclear engineering, chemistry and other students via hands-on experimentation in safe, secure, and environmentally sound handling of radioactive materials. Each subject matter planned for this course will be developed as stand-alone modules and will also be used to train other students from other institutions via a radiochemistry summer laboratory course. A subject matter expertise and skills in experimental nuclear and radiochemistry will dramatically increase the success of the PSU radiochemistry program and will benefit our graduates in serving at national laboratories, governmental agencies, academia, and corporations.

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