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Publication Date

2009-09-01

Are actinide-bacterial interactions important for risk assessment of geologic nuclear waste disposal?

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March 16, 2009

Supported by the U.S. Department of Energy under Contract No. DE-AC02-05CH11231.

CONFERENCE ABSTRACT:

The migration of actinides through the environment is an inherently complex issue that is important for the long-term risk assessment of planned nuclear waste disposal sites around the world. Of the many factors that influence the transport of actinides in the environment, microorganisms remain among the least understood and most difficult to study. Through a multitude of interactions, bacteria can play a significant role in both the mobilization and immobilization of radionuclides, including the actinides. This presentation will give an overview of the various bacterial interactions with actinides. Model systems for the interactions of bacterial surfaces with trivalent actinides will also be discussed.