

Session 18j**Geochemical and Biological Fate of Anthropogenic Radionuclides**

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Radionuclides of actinides as well as fissiogenic ones generated in nuclear facilities can be released in terrestrial environments by accidents such as the Fukushima-Daiichi Nuclear Power Plant accident. Contamination of the land surface by the radionuclides poses major scientific challenges particularly to elucidate their migration behavior. Migration in the environment is derived by the interaction at solid-water interfaces among minerals-organisms-water. Such interactions include adsorption, fixation, nano-particle formation, and precipitation at the surface of minerals and organisms. In addition, radionuclides may be transported from the contaminated soil to humans through fungi, algae, and plants. For the long-term estimation of migration, dynamic processes impacting radionuclides such as the degradation of organisms and the alteration of minerals should be considered. This session covers up-to-date knowledge in the relevant research fields highlighting: (i) dynamics and mechanisms of transformation of chemical species of radionuclides during adsorption, fixation, nano-particles formation and surface precipitation; (ii.) application of process understanding to the remediation of contaminated sites. Both field observation and laboratory experiments are encouraged. Recent results on these topics from the Fukushima-Daiichi Nuclear Power Plant accident are also welcomed.

Dates & Deadlines

February 2013 Abstract Submission and Online Registration opens

April 12, 2013 Abstract submission deadline (23:59 UTC)

June 25, 2013 End of early registration

July 2013 End of online registration

<http://goldschmidt.info/2013/program/programViewThemes>

