

DANIEL I. KAPLAN

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EDUCATION

Ph.D. Geochemistry, University of Georgia	1993
M.S. Soil and Plant Science, University of New Hampshire	1983
B.S. Soil and Plant Science, University of New Hampshire	1977

EMPLOYMENT

1998 to Present.	Senior Research Fellow, Savannah River National Laboratory, Aiken, SC
1993 to 1998.	Senior Research Scientist, Transport Geochemistry. Pacific Northwest National Laboratory, Richland, WA
1985 to 1993.	Research Associate, Biogeochemistry. University of Georgia, Savannah River Ecology Laboratory, Aiken, SC.
1983 to 1985	Research Associate, Molecular Biology/Genetic Engineering. Agracetus, Corporation, Middleton, WI

RESEARCH FOCUS

- Environmental remediation, contaminant biogeochemistry
- Application of spectroscopy and microscopy to advance biogeochemistry
- Nanoparticle/colloid chemistry; interfacial sciences; material science

SELECTED PROFESSIONAL APPOINTMENTS and AWARDS

- 9 Patents or Pending Patents related to analytical chemistry, molecular biology, & environmental remediation
- Adjunct Professor: Washington State University, August University, & Clemson University
- Associate Editor for Journal of Environmental Quality and Soil Science Society of America
- National Research Council's/National Academy of Sciences' Young Investigator's Program

SELECTED PUBLICATIONS (FY17 papers)

- Kaplan, D. I., Buettner, S. W., Li, D., Huang, S., van Groos, P. G. K., Jaffé, P. R., and Seaman, J. C. 2017. In situ porewater uranium concentrations in a contaminated wetland: Effect of seasons and sediment depth. **Applied Geochemistry** 85(B): 128-136.
- Kaplan, D. I., C. Xu, S. Huang, Y. Lin, N. Tolic, K. M. Roscioli-Johnson, P. H. Santschi, and P. R. Jaffé. 2017. Unique organic matter and microbial properties in the rhizosphere of a wetland soil. **Environmental Science and Technology** 50:4169-4177.
- Li, D., Egodawatte, S. N., Kaplan, D. I., Larsen, S. C., and Seaman, J. C. (2016). Functionalized magnetic mesoporous silica nanoparticles for U removal from low and high pH groundwater. **J. Hazardous Materials** 317, 494-502.
- Kaplan, D. I.; Kukkadapu, R.; Seaman, J. C.; Arey, B. W.; Dohnalkova, A. C.; Buettner, S.; Li, D.; Varga, T.; Scheckel, K. G.; Jaffé, P. R. 2017. Iron Mineralogy and Uranium-Binding Environment in the Rhizosphere of a Wetland Soil. **Science of the Total Environment** 569: 53-64.
- Arai, Y., Powell, B. A., and Kaplan, D. I. (2017). Residence Time Effects on Technetium Reduction in Slag-based Cementitious Materials. **J. Hazardous Materials (In Press)**.
- Arai, Y., A. H. Meena, B. Lenell, B. A. Powell, D. I. Kaplan. 2017. Spatial distribution, chemical state, solubility of rhenium in a reducing cement waste form: Implications for predicting technetium mobility in saltstone. **Applied Geochemistry**. 85(B): 180-187.
- Grandbois, R., Yeager, C., Tani, Y., Xu, C., Zhang, S., Beaver, M., Schwehr, K., Kaplan, D., and Santschi, P. (2017). Biogenic manganese oxides facilitate iodide oxidation at pH ≤ 5. *Geomicrobiology Journal*, (In press/on-line preprint).
- Arai, Y., Powell, B. A., and Kaplan, D. I. (2017). Sulfur Speciation in Untreated and Alkali Treated Ground-granulated Blast Furnace Slag. **Sci. Total Environ.** 589, 117-121.
- Santschi, P., Xu, C., Zhang, S., Schwehr, K., Lin, P., Yeager, C., and Kaplan, D. I. (2017). Recent Advances in the Detection of Specific Natural Organic Compounds as Carriers for Radionuclides in Soil and Water Environments, with Examples of Radioiodine and Plutonium. **J. Environ. Radioactivity** 171: 226-233.
- Santschi, P. H., Xu, C., Zhang, S., Schwehr, K. A., Grandbois, R., Kaplan, D. I., and Yeager, C. 2017. Behavior of Iodine and Plutonium Associated with Natural Organic Matter in the Environment: A Review of Recent Advances. **Applied Geochemistry** 85(B):121-127.

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