

Hilary P Emerson  
WMSYM15, Phoenix, AZ  
March 17, 2015



# PANEL: Young Professionals and the Role of Mentorship and Knowledge Transfer

- » UCF, BS Environmental Engineering, Dec. 2009
- » Intern @ FL DEP in wastewater
- » Research in drinking water quality

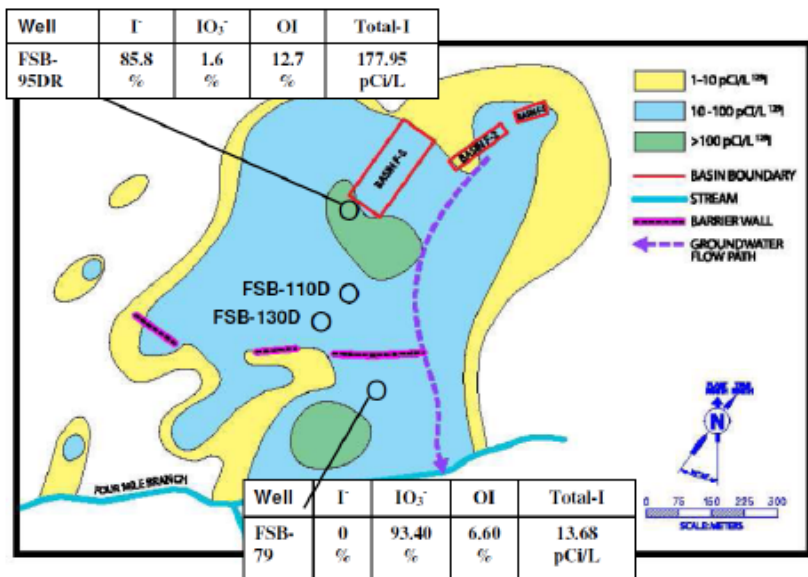
**IS THERE A  
TRADITIONAL  
ROUTE TO  
NUCLEAR?**



- » NRC Fellowship funded PhD in EE&ES
- » Great mentorship in radiochemistry (Brian A. Powell)
- » Interactive courses with visits to ORNL, SRS, and local power plants
- » Conference attendance (2-3 per year)
- » Outstanding awards programs for students
  - > Local Health Physics Society
  - > Innovations in Fuel Cycle Research Program
  - > International conference opportunities (i.e. Roy G. Post Award)
- » Opportunity to teach others
  - > K-12 Teacher workshop
  - > Alpha Spectroscopy for DOE Research Scientists
  - > Mentorship of undergraduate students and graduate students

Clemson University





# IODINE CLEANUP AT SRS DOE F-AREA SEEPAGE BASINS

Figure 1: SRS map indicating basin, well locations, and iodine speciation in groundwater (Kaplan *et al.*, 2001)



Contents lists available at ScienceDirect

## Applied Geochemistry

journal homepage: [www.elsevier.com/locate/apgeochem](http://www.elsevier.com/locate/apgeochem)



### Geochemical controls of iodine uptake and transport in Savannah River Site subsurface sediments

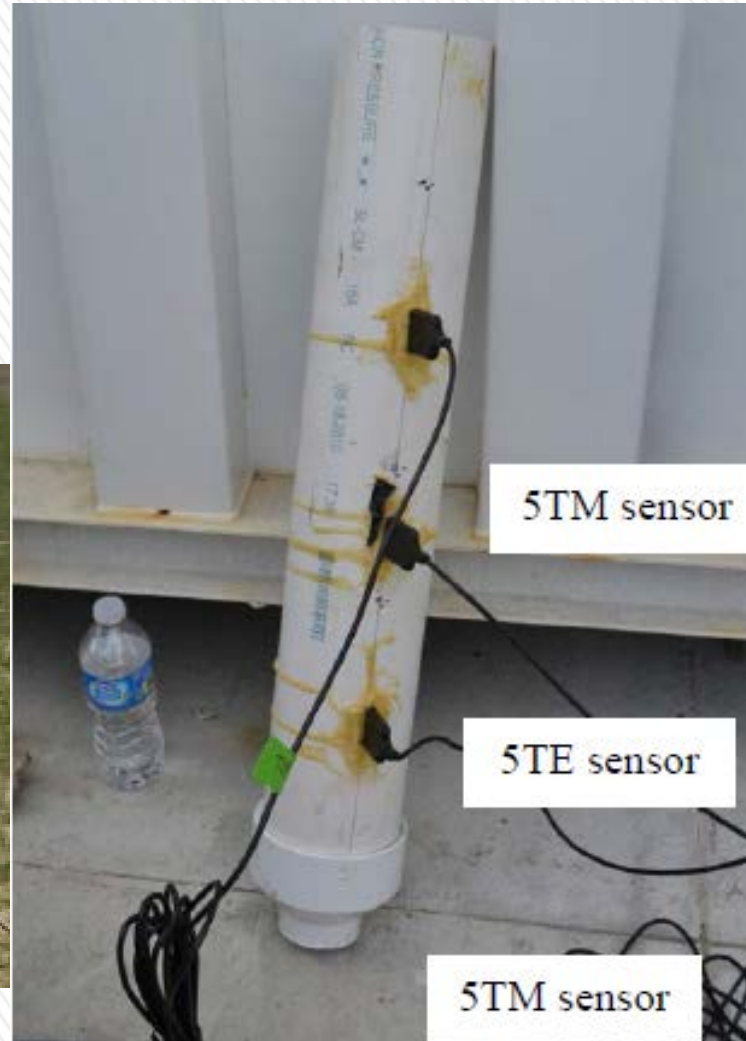


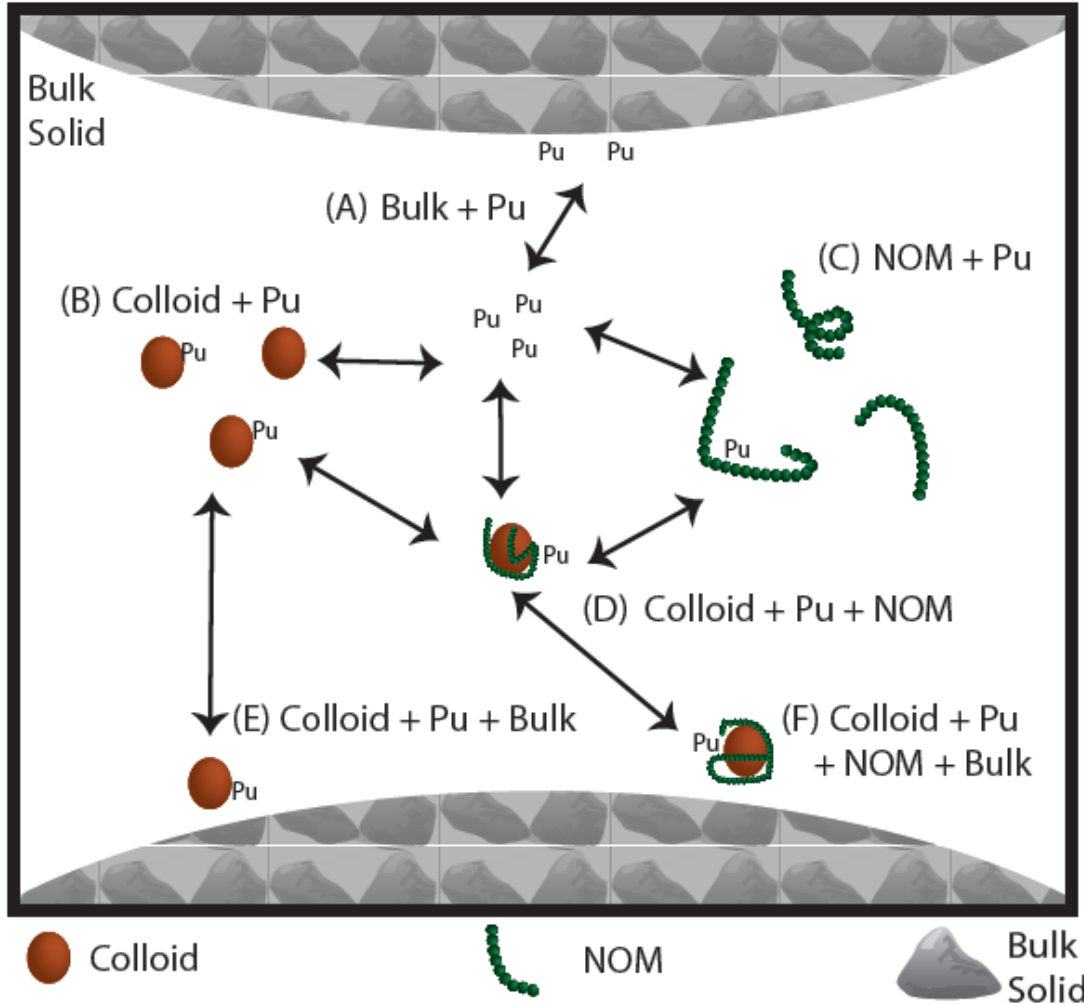
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# RADFLEX Lysimeter Project @ SRS





PhD: Dec. 2014  
 “EXPERIMENTAL  
 EVIDENCE FOR  
 COLLOID  
 FACILITATED  
 TRANSPORT OF  
 PLUTONIUM”



# OPPORTUNITY TO TRAIN OTHERS IN NUCLEAR



- » Mentorship was a deciding factor in the field
- » Although the field is aging, there is a great desire to train young people
- » Transparency seems to be greatly increasing in industry
  
- » I look forward to taking advantage of these opportunities in mentoring new students in the field!

**THANK YOU FOR YOUR ATTENTION!**  
**QUESTIONS AND DISCUSSION ARE WELCOME**

