4. Impact of the leakage of carbon dioxide during geologic carbon sequestration on groundwater quality
5. Development of hydraulic fracturing fluid for enhanced geothermal systems and shale gas production
6. Hydrogeochemistry of arsenic in the aquifer of South Asia and USA
7. Reactive multi-component transport modeling in the subsurface
8. Geochemical behavior and speciation of heavy metals in coastal acid mine drainages

INVITED TALKS

1. NJCU Practicing Professional Talks, April 25, 2016; Impacts of the Leakage of Carbon Dio

Implications for the fate of groundwater arsenic during discharge. *Applied Geochemistry*, 63, 647-660.

8. Shao, H., Kabilan, S., Stephens, S., Suresh, N., Beck, A.N., Varga, T., Martin, P.F., Kuprat, A., **Jung H.B**., Um, W., Bonneville, A., Heldebrant, D.J., Carroll, K.C., Moore, J., Fernandez, C.A. (2015) Environmentally friendly, rheoreversible, hydraulic-fracturing fluids for enhanced geothermal systems. *Geothermics*, 58, 22-31.
9. **Jung, H.B**. Carroll, K.C., Kabilan, S., Heldebrant, D.J., Hoyt, D., Zhong, L., Varga, T., Stephens, S., Adams, L., Bonneville, A., Kuprat, A., and Fernandez, C.A. (2015). Stimuli-responsive/rheoreversible hydraulic fracturing fluids as a greener alternative to support

3. Um, W.; **Jung, H.B**.; Wang, G.; Westsik, J.H.; Peterson, R.A. (2013) Characterization of Technetium Speciation in Cast Stone. PNNL-22977. Pacific Northwest National Laboratory, Richland, WA.
4. Um, W.; Wang, G.; **Jung, H.B**.; Peterson, R.A. (2013) Te

6. The 11th Annual Carbon Capture, Utilization & Sequestration Conference, Pittsburgh, April 30-May 3, 2012. **Jung, H.B**. Um. W., Cantrell K.J. "Effect of impurity oxygen on mobilization of toxic contaminants from a seal rock by supercritical carbon dioxide"
7. The 11th Annual Carbon Capture, Utilization & Sequestration Conference, Pittsburgh, April 30-May 3, 2012. Um. W., **Jung, H.B**. "Cement carbonation by various phases of carbon dioxide along the wellbore"
8. GSA Annual Meeting, Denver, October 31-November 3, 2010. **Jung, H.B**., Xu, H., Konishi, H. Roden, E. "Redox Behavior of Uranium on Nanoporous Surfaces of Aluminum Oxide"
9. Goldschmidt Conference, Knoxville, June 13-18, 2010. Sun, Y., Xu, H., **Jung, H.B**., Konishi, H., Chen, T., Roden, E.E. "The effect of nanopores on U(VI) adsorpotion/desorption at mineral-solution interface"
10. AGU Chapman Conference on Arsenic in Groundwater of Southern Asia, Siem Reap, Cambodia, March 24-27, 2009. **Jung, HB,** Zheng, Y, Bostick, B, Ahmed, KM "Geochemistry of Arsenic during Groundwater Discharge in the Ganges-Brahmaputra-Meghna Delta"
11. GSA Annual Meeting, Houston, October 5-9, 2008. **Jung, HB**, Charette, MA, Zheng, Y, "A Field, Laboratory and Modeling Study on Reactive Transport of Arsenic in a Coastal Aquifer"
12. GSA Annual Meeting, Houston, October 5-9, 2008. Zheng, Y, **Jung, HB**, Bostick, B "Arsenic Speciation and Iron Mineralogy in Sediment from Meghna and Brahmaputra River Banks of Bangladesh"
13. Second International Congress: Arsenic in the environment, Valencia, Spain, May 21-23, 2008. **Jung, HB**, Zheng, Y, Datta, S, Rahman, MW, Rahman, MM, and Ahmed, KM, "Geochemical Characterization of a Natural Reactive Barrier for Arsenic in the Sediments of Brahmaputra and Meghna River Banks, Bangladesh"
14. Ra-Rn workshop: Measurement and Application of Radium and Radon Isotopes in Environmental Sciences. Venice, Italy, April 7-11, 2008 **Jung, HB**, Charette, MA, Zheng, Y, "Immobilization of Groundwater Arsenic by Oxidation and Sorption to Iron Oxyhydroxides during Groundwater Discharge in a Subterranean Estuary"
15. Maine Water Conference, Augusta, March 21, 2007. **Jung HB**, Yang, Q, Culbertson, C, Marvinney, R, Loiselle, M, Locke, D, Cheek, H, Thibodeau, H, and Zheng, Y, "Groundwater Arsenic from Domestic Wells in Greater Augusta, Maine, USA"

PROFESSIONAL EXPERIENCE

Peer reviewer for "Environmental Science and Technology", "Geochimica et Cosmochimica Acta", "Chemical Geology", "Chemosphere", "Environmental Pollution", "Environmental Earth Sciences", "Journal of Geochemical Exploration", "Environmental Engineering Science", "Journal of Hazardous Materials", "Current Pollution Report", "Applied Water Science", "Water Science and Technology" and "Geobiology and Low-Temperature Geochemistry Program of the National Science Foundation"

TRAINING AND WORKSHOPS

1. Earth Educators' Rendezvous 2017; July 17-21, 2017, University of New Mexico,

5. 2016 Co-PI (with PI, Natalia Coleman), National Science Foundation, Title: NSF REU Site at NJCU: Distribution and Impact of Contaminants in an Urban Environment, $281,808, unfunded.
6.