

**TERESA J. CUTRIGHT**  
Associate Professor in Civil Engineering Department  
The University of Akron  
Akron, OH 44325-3905

I. EXPERIENCE IN UPPER LEVEL AND GRADUATE LEVEL TEACHING

A. Graduate Courses

- 523 Chemistry for Environmental Engineers - 16 years
- 526 Environmental Engineering Design –18 years
- 631 Soil Remediation - 9 years
- 621 Environmental Engineering Principles - 3 years
- 627 Water Pollution Principles - 2 year
- 731 Bioremediation - 11 years
- WERC Environmental Design Contest - 4 years
- 635 Air Pollution Control – 5 years

B. Undergraduate Courses

- 101 Tools for Civil Engineering I – 2 years
- 321 Introduction to Environmental Engineering –11 years
- 426 Environmental Engineering Design – 18 years
- 423 Chemistry for Environmental Engineers –16 years
- 323 Water Supply and Pollution Control - 17 years
- WERC Environmental Design Contest - 4 years
- 390 Civil Seminar – 18 years
- 482 S-STEM course 2 times a year – 9 years
- 1870:370 Honors Colloq: Natrual Sci – Sustainable Infrastructure – 1 yr

C. Dissertations Directed

1. Effect of Soil Properties, Compound Aging, and Presence of Co-solute on Sorption, Desorption, and Biodegradation of Polycyclic Aromatic Hydrocarbons in Natural Soils (Sangchul Hwang – May 2002)
2. Bioremediation of acid mine drainage contaminated soil by *Phragmites australis* and rhizosphere bacteria (L. Guo – August 2014)
3. Potential in-situ aerobic bioremediation of DDT contaminated soils (Z. Erdem – August 2016).
4. Investigation and management of cyanobacteria and cyanobacteria-dominated harmful algal blooms in drinking water sources (Elizabeth Crafton – December 2018).

5. Use of iron based coagulants for removal of reactive phosphorus (Haidar Aldaach – in progress).
6. Characterization of biodegradation and environmental weathering of tire and road wear particles (Gavan Lienhart, PhD Polymer Science, co-advisor Coleen Pugh – in progress).

#### D. Theses Directed

1. Assessment of Biodegradation and Associated Kinetics of Polycyclic Aromatic Hydrocarbon Contaminated Soils (Rino Srivistava - May 1997)
2. The Effect of Nutrient Additions on Enhancing Bioremediation (Elizabeth Ward Liebig - August 1997)
3. Bioremediation of Total Petroleum Hydrocarbons (Julie Seifert - May 1998)
4. Investigations of Mechanisms That Affect the Biokinetics for In Situ Bioremediation for PAH Contaminated Soil (Kelly Smith – December 1998, co-advisor with Helen Qammar)
5. Elucidation of Sorption, Desorption, and Biodegradation Phenomena of Pyrene Spiked Soils (Nubia Esperanza Ramirez-Pabon - August 1999)
6. Investigation of Two Microbial Delivery Systems for the In-Situ Bioremediation of PAH Contaminated River Sediment (Don Haddox - August 2000)
7. Phytoremediation of Cd(II), Cr(III), and Ni(II) Contaminated Soil by *Helianthus annuus* (Hong Chen - August 2000)
8. Aerobic Whole-Cell and Enzymatic Degradation of Trichloroethylene and Tetrachloroethylene for Waste Minimization (Jian Wang - August 2001)
9. Evaluation of the Simultaneous Interactions between Composite Biodeterioration and the Physiochemical and Biological Characteristics of Aquatic Ecosystems (Noemi Mendez-Sanchez - August 2002).
10. Evaluation of an Aerobic Consortium for the Biodegradation of Trichloroethylene - (Liliana Meza - December 2003).
11. Evaluating the Effectiveness of Zosteric Acid and Capsaicin for Use as Natural Product Anti-foulants - (Qingwei Xu - December 2004).

12. The effects of soil properties and clay minerals on the bioremediation of soils contaminated with pentachlorophenol (Ester Don-Pedro, August 2005, Geology Co-advised with A. Foos).
13. Effects of Soil Properties and Microbial Source on Pentachlorophenol Biodegradation - (Xunchi Pu - December 2005).
14. Hydroponic phytoremediation of Cd(III), Cr(III), Ni(II), As(V) and Fe(II) by *Helianthus annuus* - (Mary January - May 2006).
15. Assessment of bioremediation efficiency of indigenous bacteria and plants at an abandoned acid mine drainage site (S. Sivaram – Dec 2010.)
16. Assessment of sulfate in Ohio transportation subgrades (K. Freese – August 2014).
17. Impact of Gypsum Bearing Water on Soil Subgrades Stabilized with Lime or Portland Cement (D. Mohn – May 2015).
18. Extrinsic influence of environment on tensile response and impact behavior of four metals: ferrous versus non ferrous (M. Athasniya, co-advised with T. Srivatsan, December 2015).
19. Effect of microbial induced carbonate precipitation on surface erosion (Routian Bao, co advised with J. Tao, August 2017).
20. Forecasting cyanobacteria in Lake Rockwell using Historical Data (P. Trowbridge, co advised with L Zhang, December 2017).
21. Evaluating the effectiveness of three different algaecides for use in Willard and Norwalk reservoirs (Anny Xiao Jing Gao, December 2017).
22. Evaluating the effectiveness of algaecides in a continuous flow through system (D. Aryal, December 2018).
23. Evaluation of alum based water treatment residuals to reduce phosphorous (George Carlton, May 2019).
24. Determining the correlation between shear wave velocity and the SPT N count value (Amanda Trimble, co-advisor, J Luo, in progress)
25. Assessment of high temperature processes to reactivate aluminum in Al-WTR for sorbing reactive phosphorous (Michael Spade, in progress).
26. Impact of common trench on water quality (Mary Anne Henja, in progress).

27. Evaluation of LakeGuard copper-based algaecide for use in recreational waters (David Lowery, MS Biology, co-advised with John Senko – in progress).

#### E. Masters Projects Directed

1. Remediation of Town Gas Soils Using *Pseudomonas sp.* (Nancy E. Sauer - August 1996)
2. Soil Bioremediation Studies: Evaluating the Effects of Contaminated Soil Types, Nutrient Solutions, and Mixed and Unmixed Conditions (Jeff Belmonte - August 1997)
3. Design, Construction, and Operation of a Pilot Scale Wastewater Treatment Plant (Deborah Houdeshell - May 1998)
4. Engineering and Business Evaluation of Relevant Technologies for the Remediation of a Heavy Metal/Pesticide Contaminated Site - Environmental Management (Michael Witwer – December 1998)
5. Preliminary Design and Improvements for Existing Conventional Gravity-Type Oil-Water Separators (Gustavo Navia Hernandez - August 1999)
6. SARA Title III Reporting at a Large Chemical Manufacturing Facility (Michael Tressler - August 1999)
7. Assessment of Contaminated Groundwater at the Closed Parma Ridgewood Landfill (Janet Popielski – May 2001)
8. Environmental Management - Remediation Process for Underground Storage Tanks (Mary Ann Driscoll - May 2004)
9. Evaluation of *Thlaspi caerulescens* and *Helianthus annuus* as phytoremediation cultivars (J. Munn, co-advisor with S. Chuang, Chemical Engineering - Dec 2004.)
10. Phytoremediation of Cd(II), Cr(III), Ni(II), As(III) and Fe(II) contaminated soil by sundance sunflowers (N. Gunda, May 2008).
11. Hydroponic phytoextraction of Pb(II), As(IV), Cd(II), Ni(II) and Cr(III), *Helianthus annuus* (Ben Ong, Dec 2009).

#### II. POSSESSION OF TERMINAL DEGREE IN FIELD

Ph.D. in Chemical Engineering, The University of Akron - May 1994  
M.S. in Chemical Engineering, The University of Akron - May 1992  
B.S. in Chemical Engineering, The University of Akron - May 1990

### III. PROFESSIONAL EXPERIENCE

2016-present	Professor	Dept. Civil Engineering, University of Akron
2001-2016	Associate Professor	Dept. Civil Engineering, University of Akron
1994-2001	Assistant Professor	Dept. Civil Engineering, University of Akron

### IV. SCHOLARLY PUBLICATIONS

#### A. Refereed Book Chapters

- T.J. Cutright, "Biotechnology of Waste Minimization," in Ghassemi, A. (ed), Handbook of Pollution Control and Waste Minimization, Chapter 10, pp. 171-214, Marcel Dekker, 2002.
- T.J. Cutright, "Bioremediation," in Lee, S. (ed) Encyclopedia of Chemical Processing, Marcel Dekker, 207-219, DOI-10.1081/E-ECHP-120007679, 2005.
- T.J. Cutright, S. Hwang, "Polycyclic Aromatic Hydrocarbons," in Lee, S. (ed) Encyclopedia of Chemical Processing, Marcel Dekker 2291-2299, DOI-10.1081/E-ECHP-120007910, 2005.
- D.C. Haddox, T.J. Cutright, "Environmental Law and Policy," in Lee, S. (ed) Encyclopedia of Chemical Processing, Marcel Dekker 899-909, DOI-10.1081/E-ECHP-120022526, 2005.
- T.J. Cutright, H. van Keulen, Phytoremediation of heavy metal contaminated media, Heavy Metal Pollution, Brown SE, Welton, WC (Editors), Nova Publishing, 2008 (ISBN 978-1-60456-899-8).

#### B. Publications in Refereed Journals

Published:

1. Cutright, T.J., Lee, S. Bioremediation: A competitive alternative for the clean-up of contaminated MGP sites, Energy Sources, **16**(2): 269-277, 1994.
2. Cutright, T.J., Lee, S. Remediation of PAH contaminated soil using *Achromobacter sp.*, Energy Sources, **16**(2): 279-287, 1994.
3. Cutright, T.J., Lee, S., Quantitative and qualitative analysis of PAH contaminated soil, Fresenius Environmental Bulletin, **3**(1): 42-48, 1994.

4. Cutright, T.J., Lee, S., In-situ bioremediation of PAH contaminated soil using *Mycobacterium sp.*, Fresenius Environmental Bulletin, **3**(7): 400-406, 1994.
5. Cutright, T.J., Lee, S., Bioremediation of PAH contaminated soil: Microorganisms and metabolic pathways, Fresenius Environmental Bulletin, **3**(7): 413-421, 1994.
6. Cutright, T.J., Lee, S., Bioremediation kinetics for PAH contaminated soils, Fresenius Environmental Bulletin, **3**(10): 597-603, 1994.
7. Cutright, T.J., A feasible approach to the bioremediation of contaminated soil: From lab-scale to field test, Fresenius Environmental Bulletin, **4**(2): 67-73, 1995.
8. Kocher, B.S., Azzam, F.O., Cutright, T.J., Lee, S. Near-critical and supercritical fluid extraction of polycyclic aromatic hydrocarbons from town gas soil. Energy Sources, **17**: 213-222, 1995.
9. Cutright, T.J., Hun, Y.S., Lee, S. Effects of operating parameters on the growth of *Kluveromyces fragilis* on cheese whey. Chemical Engineering Communications, **137**: 47-51, 1995
10. Cutright, T.J., Fullerton, K.L., Lee, S. Study of the biological destructive separation of hazardous contaminants from town gas soils. Separations Technology, **5**(3): 129-132, 1995.
11. Cutright, T.J. Polycyclic aromatic hydrocarbon biodegradation and kinetics using *Cunninghamella echinulata* var. *elegans*. International Biodeterioration & Biodegradation, **35**(4): 397-408, 1995.
12. Cutright, T.J., Lee, S. In-situ soil remediation: Bacteria or fungi? Energy Sources, **17**(2): 413-419, 1995.
13. Cutright, T.J., Midha, C., Lee, S. Preliminary statistical analysis of PAH contaminated soils. Energy Sources, **18**(1): 51-56, 1996.
14. Lin, G-H, Sauer, N.E., Cutright, T.J. Environmental regulations: A brief overview of their applications to bioremediation. International Biodeterioration & Biodegradation, **38**(1): 1-8, 1996.
15. Srivastava, R., Cutright, T.J. Development and assessment of a preliminary kinetic model for in-situ PAH bioremediation. J. Soil Contamination, **6**(3): 317-338, 1997.
16. Liebig, E.W., Cutright, T.J. The investigation of enhanced bioremediation through the addition of macro and micro nutrients in a PAH contaminated soil. International Biodeterioration & Biodegradation, **44**(1): 55-64, 1999.

17. Smith, K., Cutright, T., Qammar, H. Biokinetic parameter estimation for the ISB of PAH contaminated soil. J. Env. Eng., **126**(4): 369-374, 2000.
18. Ramirez, N., Cutright, T.J. Sorption-desorption of pyrene for Colombia and New Mexico soils. Polycyclic Aromatic Compounds Journal, **18**: 273-292, 2001.
19. Zavoda, J., Cutright, T., Szpak, J., Fallon, E. The uptake, selectivity, and inhibition of heavy metals, radionuclides and phthalates treated hydroponically by plants. J. Env. Eng. **127**(6): 502-508, 2001.
20. Ramirez, N., Cutright, T., Ju, L.K. Pyrene biodegradation in aqueous solutions and soil slurries by *Mycobacterium sp.* PYR-1 and enriched consortium. Chemosphere, **44**: 1079-1086, 2001.
21. Chen, H., Cutright, T.J. EDTA and HEDTA effects on Cd, Cr, and Ni uptake by *Helianthus annuus*. Chemosphere **45**(1): 21-28, 2001.
22. Hwang, S., Cutright, T.J. Effects of aging, bacterial source and desorption on PAH biodegradation," Bioremediation of Energetics, Phenolics, and Polycyclic Aromatic Hydrocarbons, **3**: 235-241, The Sixth International In Situ and On-Site Bioremediation Symposium (Leeson, A., Margar V.S., eds.), Battelle Press, Columbus, OH, 2001.
23. Hwang, S., Cutright, T.J. The impact of contact time on pyrene sorptive behavior by a sandy-loam soil. Environmental Pollution, **117**(3): 371-378, 2002.
24. Hwang, S., Cutright, T.J. Impact of clay minerals and DOM on the competitive sorption/desorption of PAHs. Soil Sediment Contamination J., **11**(2): 269-291 2002.
25. Hwang, S., Cutright, T.J. Biodegradability of aged pyrene and phenanthrene in a natural soil. Chemosphere, **47**(9): 891-899, 2002.
26. Chen, H., Cutright, T.J. The interactive effects of chelator, fertilizer, and rhizobacteria for enhancing phytoremediation of heavy metal contaminated soil. J. Soils Sediments **2**(4): 203-210, 2002.
27. Hwang, S., Cutright, T.J. Statistical impact of the extent of desorption, compound aging, and bacteria inoculation on PAH soil biodegradation. PAC J. **22**(5): 1057-1074, 2002.
28. Chen, H., Cutright, T.J. Microbial mediated precipitation of cadmium, chromium, and nickel by a rhizosphere consortium. J. Environ. Eng **129**(1): 4-9, 2003.

29. Hwang, S., Cutright, T.J. Statistical implications of pyrene and phenanthrene sorptive phenomena: effects of sorbent and solute properties. Archives Environmental Contamination Toxicology, **44**(2): 152-159, 2003.
30. Haddox, D., Cutright, T.J. Evaluation of two bacterial delivery systems for the in-situ bioremediation of PAH contaminated sediments. J. Soils Sediments, **3**(1): 41-48, 2003.
31. Hwang, S., Ramirez, N., Cutright, T.J., Ju, L.K. Role of soil properties in pyrene sorption and desorption. Water, Air, Soil Pollution **143**(1-4): 65-80, 2003.
32. Hwang, S., Cutright, T.J. Effect of expandable clays and cometabolism on PAH biodegradability. Environ Science Pollution Research **10**(5): 277-280, 2003.
33. Reddy, K., Chinathamreddy, S., Saichek, R.E., Cutright, T.J. Nutrient amendment of for the bioremediation of chromium contaminated soil by electrokinetics. Energy Sources, **25**(9): 931-943, 2003.
34. Mendez-Sanchez, N., Cutright, T.J., Qiao, P. Simultaneous evaluation of composite biodeterioration and the physicochemical and biological characteristics of an aquatic ecosystem. Int'l Biodet. Biodeg, **52**(3): 187-196, 2003.
35. Meza, L., Cutright, T.J., El-Zahab, B. Wang, P. Aerobic biodegradation of trichloroethylene using a consortium of five bacterial strains. Biotechnology Letters **25**(2): 1925-1932, 2003.
36. Hwang, S., Cutright, T.J. Preliminary exploration of the relationships between soil characteristics and PAH desorption and biodegradation. Environment International **29**(7): 887-894, 2004.
37. Turgut, C., Newby, B.M., Cutright, T.J. Determination of optimal water solubility of capsaicin for its usage as a non-toxic antifoulant. Environ. Sci. Pollution Res. **11**(1): 7-10, 2004.
38. Hwang, S., Cutright, T.J. Preliminary evaluation of PAH sorptive changes in soil chemically and thermally weathered by Soxhlet extraction. Environment International, **30**(2): 151-158, 2004.
39. Hwang, S., Cutright, T.J. Evidence of underestimation in PAH sorption/desorption due to system non-equilibrium and interaction with soil constituents. J. Environ. Sci. Health, Pt A-Toxic/Haz Subst Environ. Eng., **A39**(5): 1147-1162, 2004.

40. Hwang, S., Min, K.S., Cutright, T.J. PAH biodegradation in soil-water slurries contaminated with waste oil. Environmental Engineering Research **9**(1): 1-12, 2004.
41. Turgut, C., Pepe, M.K., Cutright, T.J. Effect of EDTA and citric acid on phytoremediation of heavy metals from soil. Environ. Poll. **131**(1): 147-154, 2004.
42. El-Zahab, B., Meza, L., Cutright, T.J., Wang, P. Enzymatic Degradation of TCE Using Enzyme Extracts Isolated From Bacterial Consortium. Applied Biochemistry Biotechnology, **117**(3): 165-174, 2004.
43. Mendez-Sanchez, N., Cutright, T.J., Qiao, P. Advanced weathering and biodegradation of e-glass polyester composites. Int'l Biodeter. Biodeg. **54**(4): 289-296, 2004.
44. Turgut, C., Pepe, M.K., Cutright, T.J. The effect of EDTA on *Helianthus annuus* uptake, selectivity, and translocation of heavy metals when grown in Ohio, New Mexico and Colombia soils. Chemosphere, **58**(8): 1087-1095, 2005.
45. Barrios, C.A., Xu, Q., Cutright, T., Newby, B.Z. Incorporation of zosteric acid into silicone coatings to determine the attachment of freshwater bacteria. Colloids Surfaces B: Biointerfaces, **41**(2-3): 83-93, 2005.
46. Ramaswamy, S., Cutright, T.J., Qammar, H.K. Control of a continuous bioreactor using model predictive control. Process Biochemistry, **40**(8): 2763-2770, 2005.
47. Wang, J., Cutright, T.J. Potential waste minimization of trichloroethylene and perchloroethylene via aerobic biodegradation. J. Environ. Sci. Health, Pt A-Toxic/Haz Subst Environ. Eng. **A40**(8): 1569-1584, 2005.
48. Haque, H., Cutright, T.J., Newby, B.M.Z. Effectiveness of sodium benzoate and benzoic acid as freshwater low toxicity antifoulants when dispersed in solution and entrapped in silicone coatings. Biofouling, **21**(2): 109-119, 2005.
49. Xu, Q., Barrios, C.A., Cutright, T.J., Newby, B.Z., Assessment of the antifouling effectiveness of two NPAs by an attachment study with freshwater bacteria. ESPR, **12**(5): 278-284, 2005.
50. Xu, Q., Barrios, C.A., Cutright, T.J., Newby, B.Z. Toxicity evaluation of capsaicin and zosteric acid and their potential applications as antifoulants. Environmental Toxicology, **20**(5): 467-474 2005.

51. Newby, B.Z., Barrios, C.A., Xu, Q., Cutright, T.J. Zosteric Acid: an effective antifoulant for reducing fresh water bacteria attachment on coatings. JCTR, 3(1): 69-76, 2006.
52. Pu, X, Cutright, T.J., Sorptive behavior of PCP on SOM and clay minerals. Chemosphere 64(6): 972-983, 2006.
53. Cutright, T.J, Meza, L. Evaluation of the aerobic biodegradation of trichloroethylene via response surface methodology. Environment International 33(3): 338-345, 2007.
54. Pu, X., Cutright, T.J. Degradation of pentachlorophenol by pure and mixed cultures in two different soils. ESPR, 14(4): 244-250, 2007.
55. January, M.J, Cutright, T.J, Van Keulen, H., Wei, R. Hydroponic phytoremediation of Cd, Cr, Ni, As, and Fe: can *Helianthus annuus* hyperaccumulate multiple metals? Chemosphere 70(3): 531-537, 2008.
56. Van Keulen, H., Wei, R., Cutright, T.J. Arsenate-induced expression of a class III chitinase in the Dwarf sunflower *Helianthus annuus*. Environ Exp Botany, 63(1-3): 281-288, 2008.
57. Munn, J., January, M., Cutright, T.J. Greenhouse evaluation of EDTA effectiveness at enhancing Cd, Cr, Ni uptake in *Helianthus annuus* and *Thlaspi caerulescens*. J Soils Sediments, 8(2): 116-122, 2008.
58. Turgut, C., Ates, D. Gokbulut, C, Cutright T.J. Contents and sources DDT impurities in Dicofol formulations in Turkey. ESPR 16: 214-217, 2009.
59. Turgut, C., Ates, D., Erdogan, O., Gokbulut, Cutright, T.J. Persistence and behaviour of pesticides in cotton production in Turkish soil. Environmental Monitoring Assessment, 162(1-4): 201-208, 2010.
60. Cutright, T.J., Gunda, N., Kurt, F. Simultaneous hyperaccumulation of multiple heavy metals by *Helianthus annuus* grown in a contaminated sandy-loam soil. International J. Phytoremediation, 12(6): 562-573, 2010.
61. Walliwagedara, C., van Keulen, H., Cutright, T., Wei, R. Comparison of sample preparation methods for the resolution of heavy metal-regulated proteins by 2-DE in *Helianthus annuus*. Open Proteomic J 3: 20-25, 2010.
62. Turgut, C., Babahan, I., Atatanir, L., Cutright, T.J. Assessment of two new ligands for increasing multiple uptake of Cd, Cr, and Ni in *Helianthus annuus* grown in a sandy-loam soil. Water Air Soil Pollution 210: 289-295, 2010.
63. Turgut, C., Omek, H., Cutright, T.J. Pesticide residues in dried table grapes from the Aegean region of Turkey, Environ Monit Assess 167: 143-149, 2010.

64. Hasintha, C., van Keulen, H., Cutright, T., Wei, R. Differential expression of proteins induced by lead in *Helianthus annuus*. Phytochemistry, **71**: 1460-1465, 2010.
65. Turgut, C, Atatanir, L, Ates, D., Cutright, T.J. Evaluation of pesticide contamination in Dilek national park, Turkey. Environmental Monitoring Assessment, **170**:671-679, 2010.
66. Turgut, C. Ornek, H. Cutright, T.J. Determination of pesticide residues in Turkey's table grapes: the effect of integrated pest management, organic farming and conventional farming. Environmental Monitoring Assessment **173**: 315-323, 2011.
67. Atatanir, L., Turut, C., Cutright, T.J. Baseline of the spatial and temporal metal contamination in Dilek National Park, Turkey. Environmental Monitoring Assessment **179**(1-4): 201-207, 2011.
68. Ram, J., Purohit, S., Newby, BMZ, Cutright, T.J. Evaluation of the natural product antifoulant, zosteric acid, on preventing attachment of quagga mussels. Natural Product Research **26**(6): 580-584, 2012.
69. Cutright, T.J., Senko, J., Sivaram, S., York, M. Evaluation of phytoextraction potential at an acid mine drainage (AMD) impacted site. Soil Sediment Contamination, Intl Journal **21**(8): 970-984, 2012.
70. Cutright, T.J., Erdem, Z. Overview of bioremediation and the degradation pathways of DDT. J Adnan Menderes University Agricultural Faculty, **9**(2): 39-45, 2012.
71. Turgut, C., Cutright, T.J., Mermer, S., Atatanir, L., Turgut, N., Usluy, M., Erdogan, O. The source of DDT and its metabolites in Turkish agricultural soils. Environmental Monitoring Assessment, (DOI 10.1007/s10661012-2616y) **185**: 1087-1093, 2013.
72. Cutright, T.J., Pasetto, P, Difference in American and French undergraduate students' perception and attitudes towards science and education, Educational Research **4**(3): 273-285, 2013.
73. Cutright, T.J., Mahoney, M., Franey, K, Patnaik, A. Carbon footprint assessment of polypropylene fiber reinforced concrete floors, International Journal Constructed Environment, **3**(1): 73-83, 2013.
74. Badawy, H.T., Pasetto, P., Mouget, JL, Pilard, JF, Cutright, T.J., Milsted, A., Bacterial adhesion and growth reduction by new rubber derived oligomers, Biochemical Biophysical Research Communications, **438**(4): 691-696, 2013.

75. Poncelet, D., Cavender, N., Cutright, T.J., Senko, J.M. An assessment of microbial communities associated with surface mining-disturbed overburden, Environmental Monitoring Assessment, **186**(3):1917-1929, 2014 DOI 10.1007/s10661-013-3505-8.
76. Guo, T., Cutright, T.J., Remediation of acid mine drainage (AMD) contaminated soil by *Phragmites australis* and rhizosphere bacteria, ESPR **21**: 7350-7360, 2014, 10.1007/s11356-014-2642-0.
77. Guo, L., Cutright, T.J., Effect of citric acid and rhizosphere bacteria on metal plaque formation and metal accumulation in reeds in synthetic acid mine drainage solution, Ecotoxicology Environmental Safety, **104**: 72-78, 2014.
78. Cutright, T.J., Evans, E., Brantner, J.S., Building an undergraduate STEM team using team-based learning leading to the production of a storyboard appropriate for elementary students. J Science Education Technology, **23**(3):344-354, 2014 (DOI 10.1007/s10956-013-9467-3).
79. Guo, L., Ott, D.W., Cutright, T.J., Accumulation and histological location of heavy metals in *Phragmites australis* grown in acid mine drainage contaminated soil with or without the citric acid, Environmental Experimental Botany, **105**: 46-54, 2014.
80. Freese, K., Miller, R., Cutright, T.J., Senko, J, A Review of Chromite Ore Processing Residue (COPR): Past Practices, Environmental Impact and Potential Remediation Methods, Current Environmental Engineering, **1**(2): 82-90 2014.
81. Freese, K., Abbas, A.R., Senko, J., Cutright, T.J., Assessment of process variables that can impact results of soluble sulfate evaluated by the Tex-145E method, J Testing Evaluation **43**(6): 1472-1478, 2015.
82. Guo, L., Cutright, T.J. Effect of citric acid, iron oxidizing bacteria and acidophilic heterotrophs on metal uptake in reeds grown in AMD solutions. Journal Environmental Management **150**: 235-242 2015.
83. Guo, L., Cutright, T.J., Duirk, S. Effect of citric acid, rhizosphere bacteria and plant age on metal uptake of plants cultured in acid mine drainage solution. WASP, **226**(1): 2264-2275, 2015.
84. Erdem, Z., Cutright, T.J. Sorption/desorption of 1,1,1-trichloro-2,2-bis(*p*-chlorophenyl) ethane (4,4'-DDT) on a sandy-loam soil, Environmental Monitoring Assessment, **187**(2): 24-36, 2015. DOI: 10.1007/s10661-015-4262-7.

85. Guo, L., Cutright, T.J., Remediation of AMD contaminated soil by wild and purchased *Phragmites australis*, International Journal Phytoremediation, 17(4): 391-403, 2015.
86. Badawy, H., Brunellier, J., Veryaskina, M., Brotons, G., Sable, S., Lanneluc, I., Labert, K., Marmey, P., Milsted, A., Cutright, T.J., Nourry, A., Mouget, J.L., Pasetto, P. Assessing the antimicrobial activity of polyisoprene based surfaces. International J Material Sciences, 16: 4392-4415, 2015. Doi: 10.3390/ijms16034392.
87. Guo, L., Cutright, T.J. Metal plaque on reeds from an acid mine drainage site, Journal Environmental Quality, 44(3): 859-867, 2015.
88. Erdem, Z., Partovinia, A., Cutright, T.J., Growth and DDT degradation capabilities of aerobic bacterium *Alcaligenes eutrophus* A5, *Corynebacterium sp.* and a consortium of the two species, Journal Bioremediation, Open Access, 2015.
89. Mohn, D., Cutright, T., Senko, J, Abbas, A.R. Assessment of sulfate concentrations in water used during chemical stabilization and its potential impact on sulfate induced heave, Geotechnical Geological Engineering, 34(1): 285-296, 2016, DOI 10.1007/s1076-015-9944-y.
90. Erdem, Z., Cutright, T.J. Biodegradation potential of 1,1,1-trichloro-2,2-bis(*p*-chlorophenyl) ethane (4,4'-DDT) on a sandy-loam soil using aerobic bacterium *Alcaligenes eutrophus* A5, Environmental Engineering Science, 33(3): 149-159, 2016.
91. Freese, K., Jambor, K, Abbas, A.R., Senko, J.M., Cutright, T. Origin and formation of sulfate in soils from three Ohio counties. Geotechnical Geological Engineering, 34(5): 1327-1343, 2016. DOI: 10.1007/s10706-016-0045-3.
92. Guo, L., Cutright, T.J., Bioaccumulation of metals in reeds collected from an acid mine drainage contaminated site in winter and spring, Environmental Technology, 37(14): 1821-1828, 2016.
93. Cutright, T.J., Evans, E.A., A year-long peer mentoring activity to enhance the retention of freshmen STEM students in a NSF scholarship program, Mentoring Tutoring: Partnership Learning 24(3): 201-202, 2016, DOI: 10.1080/13611267.2016.1222811.
94. Erdem, Z., Cutright, T.J. Biotransformation of 1,1,1-trichloro-2,2-bis(*p*-chlorophenyl) ethane (4,4'-DDT) on a sandy-loam soil using aerobic bacterium *Corynebacterium sp.*, Environmental Earth Sciences 75: 1267-1275, 2016. DOI:10.1007/s12665-016-6057-8.

95. Guo, L., Cutright, T.J. Metal storage in reeds from an acid mine drainage contaminated field, International Journal Phytoremediation, 19(3): 254-261, 2017. 10.1080/15226514.2016.1216073.
96. Bao, R., I, J., Li, L., Cutright, T.J., Zhu, J., Tao, J. Effect of microbial induced calcite precipitation on surface erosion of granular soils: proof of concept, Transportation Research Record, **2657**: 10-18, 2017, DOI 10.3141/2657-02.
97. Guo, L., Cutright, T.J., Potential of citric acid to alter pH and increase metal uptake in reeds in acid mine drainage solutions, Water and Environment Journal, 32(3): 333-340, 2018. doi:10.1111/wej.12329.
98. Crafton, E.A., Glowczewski, J., Ott, D.W., Cutright, T.J. In-situ field experiment to evaluate the efficacy of Cutrine Ultra to manage a cyanobacteria Population in a drinking water source, Environmental Science: Water Research and Technology, **4**(6): 863-871, 2018. DOI: 10.1039/C8EW00124C.
99. Crafton, E., Pritchard, C., Guo, L., Senko, J.M., Cutright, T.J. Dynamics of Fe, Mn, and Al removal in an acid mine drainage treatment system 13 years after installation, Environmental Earth Sciences, **78**(1): 2019 DOI 10.1007/s12665-018-8008-z.
100. Crafton, E.A., Cutright, T.J., Bishop, W.M., Ott, D.W. Modulating the effect of iron and total organic carbon on the efficiency of a hydrogen peroxide based algaecide for suppressing cyanobacteria, Water Air Soil Pollution **230**(3): 56- 2019. DOI 10.1007/s11270-019-4112-2

Accepted:

Under Review

1. Guo, L., Cutright, T.J., Comparison of metal accumulation in reeds cultured in acid mine drainage solutions and soils, submitted Soil Sediment Contamination: An International Journal, 2019.
2. Gao, A., Crafton, E.A., Aryal, D., Cutright, T.J., Ott, D.W., Determination of the optimal algaecide dosage for two source waters in the Huron watershed of northcentral Ohio, submitted Water Environment Research, July 2019.
3. Mikita, T., Crow, M.J., Cutright, T.J., Schneider, W., Optimizing storm sewer

cleaner operations with alternative equipment, submitted Transportation Research Board, July 2018.

4. Carleton, G., Cutright, T.J. Evaluation of alum-based water treatment residuals to adsorb reactive phosphorus, submitted to Water and Environment Journal, June 2019.
5. Crafton, E.A., Glowczewski, J., Cutright, T.J., Ott, D.W. Bench-scale assessment of three copper-based algacide products for cyanobacteria management in source water, submitted Water Air Soil Pollution, May 2019.
6. Crafton, E.A., Cutright, T. Impact of storm-driving phosphorus inputs on the growth of a non-diazotrophic dominated cyanobacteria community, submitted Applied Biochemistry and Biotechnology, June 2019.

#### C. Publications in Proceedings

1. Cutright, T.J., Lee, S. "Site Characterization & Strain Selection for Bioremediation of PAH Contaminated Soil," I&EC, Preprints, **1**: 253-256 ACS Emerging Technologies in Hazardous Waste Management, **V**, Atlanta, GA, Sept. 27-29, 1993.
2. Cutright, T.J., Lee, S. "Assessment of Biotreatment Processes: In-Situ vs. Ex-Situ," Proceedings 11th Annual International Pittsburgh Coal Conference, Vol 2, 992-996, Pittsburgh, PA, Sept. 12-16, 1994.
3. Cutright, T.J., Lee, S. "Quantitative Characterization of Soil Pollutants Using High Performance Liquid Chromatography," Proceedings 11th Annual International Pittsburgh Coal Conference, 2: 1009-1014, Pittsburgh, PA., Sept. 12-16, 1994.
4. Cutright, T.J., Joshi, M., Lee, S. "Preliminary Process Studies for Bioremediation of PAH Impacted Soil," Proceedings 11th Annual International Pittsburgh Coal Conference, 2: 1015-1019, Pittsburgh, PA, Sept. 12-16, 1994.
5. Cutright, T.J., Kocher, B.S., Joshi, M., Lee, S. "Scale-Up Considerations of Bioremediation Studies from Lab-Scale to Field Test," Proceedings 11th Annual International Pittsburgh Coal Conference, 2: 1020-1023, Pittsburgh, PA, Sept., 12-16, 1994.

6. Cutright, T.J., Kocher, B.S., Azzam, F.O., Lee, S. "Decontamination of Town Gas Soils by Supercritical Water Extraction," Proceedings 11th Annual International Pittsburgh Coal Conference, 2: 1003-1008, Pittsburgh, PA, Sept. 12-16, 1994.
7. Kulik, C.J., Kocher, B.S., Vamosi, J.E., Cutright, T.J., Lee, S. "Decontamination of Town Gas Soil by Coal Agloflotation," Proc 11th Annual International Pittsburgh Coal Conference, Pittsburgh, PA, Sept. 12-16, 1994.
8. Cutright, T.J., Kocher, B.S., Vamosi, J.E., Lee, S. "In-Situ Remediation Techniques for the Cleanup of Town Gas Soils," I&EC, Preprints, 2: 942-944, ACS Emerging Technologies in Hazardous Waste Management, V, Atlanta, Ga., September 19-21, 1994.
9. Sauer, N.E., Akkineni, D.K., Cutright, T.J. "A Comparison of Three Bacterial Strains for the Remediation of Town Gas Soils," I&EC, Preprints, 1: 633-635, ACS Emerging Technologies in Hazardous Waste Management, VII, Atlanta, Ga., September 17-20, 1995.
10. Srivastava, R., Haddox, D., Cutright, T.J. "Development of Preliminary Kinetic Model for In-Situ PAH Bioremediation," I&EC, Preprints, 1:674-678 ACS Emerging Technologies in Hazardous Waste Management, VIII, Birmingham, Al., September 9-12, 1996.
11. Witwer, M., Cutright, T.J. "Feasibility of Bioenhancement for a Confined Aquifer Contaminated with Petroleum Hydrocarbons," I&EC, Preprints, 1: 156-159, ACS Emerging Technologies in Hazardous Waste Management, IX, Pittsburgh, PA, September 15-17, 1997.
12. Liebig, E.W., Cutright, T.J. "The Effect of Nutrient Additions on Enhancing Bioremediation," I&EC, 1: 260-263, ACS Emerging Technologies in Hazardous Waste Management, IX, Pittsburgh, PA, September 15-17, 1997.
12. Hartong, J. Szpak, J., Hamric, T., Cutright, T. "Hydroponic Phytoremediation of Heavy Metals and Radionuclides," Water Resources & the Urban Environment, 688-693, ASCE Env. Division, Chicago, IL, June 7-10, 1998.
14. Hwang, S. (speaker), Ramirez N., Cutright, T.J. "Sequestration of Pyrene by Clay Materials in a Natural Soil," 220<sup>th</sup> National ACS Meeting, Washington D.C., 40(2): 158-159, August 20-25, 2000.
15. Wang J. (speaker), Cutright, T.J. "Aerobic Degradation of Trichloroethylene by a New Consortium for Waste Minimization," 220<sup>th</sup> National ACS Meeting, Washington D.C., 40(2): 414-416, August 20-25, 2000.

16. Cutright, T., Lopina, S., Qammar H. (speaker), "A Biotechnology Specialization within Chemical Engineering," AICHE Annual Meeting, Los Angeles CA, November 12-17, 2000.
17. Mendez-Sanchez N., Cutright, T.J. "Biodeterioration of Submerged Composites and their Impact on Aquatic Ecosystems," Proceedings of 2<sup>nd</sup> Annual Great Lakes Civil Engineering Graduate Research Symposium, Case Western Reserve, May 15, 2001.
18. Wang, J., Cutright, T.J. "Aerobic Whole-cell and Enzymatic Degradation of TCE and PCE for Waste Minimization," Proceedings of 2<sup>nd</sup> Annual Great Lakes Civil Engineering Graduate Research Symposium, Case Western Reserve, May 15, 2001.
19. Hwang, S., Cutright, T.J. "Soil Characteristics and PAH Biodegradation," Proceedings of 2<sup>nd</sup> Annual Great Lakes Civil Engineering Graduate Research Symposium, Case Western Reserve, May 15, 2001.
20. Qammar, H. (Speaker), Cutright, T. "Structuring Program Assessment to Yield Useful Information for ChE Faculty," Proceedings of ASEE Annual Meeting, Nashville, TN, June 22-25, 2003.
21. Meza, L., Cutright T.(speaker), El-Zahab, B., Wang, P. "Evaluation of a New Bacterial Consortium for the Biodegradation of TCE: Comparison of Whole Cell and Enzymatic Degradation Efficiencies," Proceedings of 2<sup>nd</sup> European Bioremediation Conference, Chania, Crete, Greece, June 30 - July 4, 2003, p168-171.
22. Turgut, C. (speaker), Pepe, M.K., Cutright, T.J. "Effect of EDTA on the mobilization, uptake, and selectivity of cadmium, chromium, and nickle during phytoremediation with *Helianthus annuus*," poster presentation at 12<sup>th</sup> International Symp. Environmental Pollution and its Impact on Life in the Mediterranean Region, Antalya Turkey, October 4-8, 2003.
23. Turgut C. (speaker), Newby B.M.Z., Cutright, T.J. "A preliminary evaluation of the impact of two natural antifoulants on a natural ecosystem," poster presentation at 12<sup>th</sup> International Symp. Environmental Pollution and its Impact on Life in the Mediterranean Region, Antalya Turkey, October 4-8, 2003.
24. Barrios, C.A. (speaker), Xu, Q., Cutright, T., Newby B.M.Z., "Evaluation of antifouling properties of zosteric acid," Adhesion Society Annual Meeting, Welmington NC, February 15-18, 2004.
25. Barrios, C.A., Xu, Q. Cutright, T., Newby B.M.Z (speaker), "Zosteric acid - an effective antifoulant for reducing bacterial attachment on coatings," 228<sup>th</sup>

- National American Chemical Society Meeting, Philadelphia PA, August 22-26, 2004.
26. Kurlinski, A., Qammar, H., Cutright, T.J. "Bioaerosols from mulch facilities: an environmental concern?" 1<sup>st</sup> Intl Environmental Sci Technology Conference, American Academy Science, New Orleans LA, Jan 23-26, 2005.
  27. Barrios, C., Xu, Q., Newby, BMZ, Cutright, T.J. "Methods for incorporating zosteric acid into silicone coatings", 1<sup>st</sup> Intl Environmental Sci Technology Conference, American Academy Advancement of Science, New Orleans LA, Jan 23-26, 2005.
  28. Munn, J., Turgut, C., Cutright, T.J. "Laboratory assessment of *Thlaspi caerulescens* and *Helianthus annuus* for phytoremediation of contaminated soil," 1<sup>st</sup> Intl Environmental Sci Technology Conference, American Academy Advancement of Science, New Orleans LA, Jan 23-26, 2005.
  29. Xu, Q., Barrios, C., Newby, BMZ, Cutright, T.J. "Reduction of freshwater bacteria attachment in the presence of zosteric acid," 1<sup>st</sup> Intl Environmental Sci Technology Conference, American Academy Advancement of Science, New Orleans LA, Jan 23-26, 2005.
  30. Panwiriyarat, W., Saetung, N., Badaway, H., Khaohong, C., Pasetto, P. (speaker), Campistorn, I., Nourry, A., Pascual, S. Fontaine, L., Cutright, T, Mouget, JL, Tanrattanakul, V., Pilard, J.F. Natural rubber: an old material for new applications. 182 Technical Meeting, ACS Rubber Divison, Cincinnati, OH Oct 2012.
  31. Cutright, T., Esson, J. Gold, L.H., Hallinan, K., S-STEM: Increasing STEM student recruitment, retention and success at Ohio universities. Proceedings OH-PKAL, Otterbein University, Westerville OH May 16, 2015.
  32. Cutright, T.J., Puskas, J., Williams, L.N, Coats, L.T., Rodrigues, D.F., Claydon, F., Paper 11279: Easing the tortuous road that under-represented minorities travel to become engineering faculty, Proceedings 122<sup>nd</sup> ASEE Annual Conference, Seattle WA June 14-17, 2015.
  33. Cutright, T.J., Evans, E., Paper 11295: Use of an undergraduate, interdisciplinary design team to address the remediation of fracking water and acid mine drainage. Proceedings 122<sup>nd</sup> ASEE Annual Conference, Seattle WA June 14-17, 2015.
  34. Guo, L., Cutright, T.J. Citric acid enhanced metal uptake in reed seedlings in acid mine drainage solutions. 8th International Conference on Environmental Science and Technology, 2: 218-222, 2015.

35. Bao, R., Li, J., Li, L., Cutright, T.J., Chen, L., Zhu, J., Tao, J. Bio-inspired bridge scour countermeasures: streamlining and biocementation. International Conference Transportation Infrastructure Materials (ICTIM), Qingdao Chin June 9-12, 2017. ISBN: 978-1-60595-442-4
36. Cutright, T.J., Willits, R.K., Ott, D.W., Espanol, M. Development of educational artifacts on wetlands by an undergraduate interdisciplinary design team. Proceedings of the ASEE North Central Spring Conference, Akron Ohio, March 23-24, 2018.
37. Cutright, T.J., Willits, R.K. Coats, L.C., Williams, L., Rodrigues, D. "Professional preparation of underrepresented minority PhD's and post-docs for a career in engineering academia. Proceedings ASEE CoNED conf, Crystal City VA, Mar 29-Apr 1, 2018.

#### C. Technical Reports

1. Cutright, T.J., Abbas, A.R., Senko, J. Assessment and treatment of sulfate bearing soils in Ohio. SJN 134703, Report No. FHWA/OH-2015-6, April 2015.
2. Schneider, W.H., Cutright, T.J., Crow, M.J., Pelfrey, A. Economic evaluation and analysis of liquid deicers for winter maintenance. SJN 134933, September 2017.
3. Schneider, W.H., Cutright, T.J., Mikita, T., Evaluation of the Ohio Department of Transportation's current storm cleaning operations – Phase I. SJN 135494, March 2018.
4. Schneider, W.H., Cutright, T.J., Mikita, T., Evaluation of the Ohio Department of Transportation's current storm cleaning operations – Phase II. SJN 135494, February 2019.

#### D. Other Publications

1. Haddox, D., Sauer, N., Cutright, T. "Preliminary Respirometer Studies for the Bioremediation of PAH Contaminated Soils," Wise, D. editor, 3<sup>rd</sup> Global Environmental Biotechnology, Kluwer Academic Pub. Symposium series, 355-364, 1997.
2. Cutright T.J., Miller, C.M. "Summarizing In-situ Remediation of Contaminants in the Vadose Zone," Feature Report in: Air & Waste Management Association Newsletter, Northern Ohio Chapter, **10(2)**, 1997.

#### IV. ACTIVITY IN RESEARCH (Total \$3,974,373)

A. Funded Research Projects (Total amount to date - \$3,910,878)

1. "Ohio Bioprocessing Consortium," OSU Subgrant of the OBR Investment Fund, \$419,000 (co-investigators: LK Ju, S. Lee, WB Arbuckle, T Cutright).
2. "Soil Remediation & Water Quality Evaluation Using Microtox," Microbics Education/Research & Development Grant Program, \$10,000 (PI: Cutright, co-I CM Miller).
3. "Vertical Integration of Environmental Design for Chemical and Civil Engineering," EPA Environmental Education Grant, \$23,954 (PI: HK Qammar, co-I: T Cutright).
4. "OBR Individual Research Challenge Matching Award to 02277 Vertical Integration of Environmental Design for Chemical and Civil Engineering," Ohio Board of Regents/Individual Research Challenge, \$20,000 (PI: H.K. Qammar, co-I: T Cutright)
5. "Bioenhancement Feasibility Study for Coit Road Project," Metcalf & Eddy, \$2,000.
6. "Aerobic Phthalate Biodegradation in Soil," EMG/RJF, \$2,500 (PI: Cutright, co-I C. Miller)
7. External Support for WERC Environmental Design Contest: (\$9,000)
  - 1994-95 5th Annual Contest, \$3,000
  - 1995-96 6th Annual Contest, \$2,100
  - 1996-97 7th Annual Contest, \$2,300
  - 1997-98 8th Annual Contest, \$1,600
8. "Unrestricted Research on Biotechnology," Morrison-Knudsen, \$6,630 (PI: Cutright, co-I: S. Lopina)
9. "Unrestricted Research on Biotechnology, Supplement," Morrison-Knudsen, \$2,200 (PI: Cutright, co-I: S. Lopina)
10. "Unrestricted Research on Aerobic Degradation of Chlorinated VOCs," Environmental Strategies Corporation, \$6,000 (Spring 2001).
11. "SGER: Multienzymatic Biocatalysis for the Treatment of Industrial Wastewater Heavily Contaminated with Chlorinated Solvents," NSF (BES-0117042), \$55,013 (PI: Cutright, co-I: P. Wang), 9/01/2001-11/30/2002.
12. OBR Individual Research Challenge Matching Award to BES-0117042 "SGER: Multienzymatic Biocatalysis for the Treatment of Industrial

- Wastewater Heavily Contaminated with Chlorinated Solvents," \$13,753 (PI: Cutright, co-I: P. Wang).
13. "REU Supplement - SGER: Multienzymatic Biocatalysis for the Treatment of Industrial Wastewater Heavily Contaminated with Chlorinated Solvents," NSF (BES-0138025), \$10,800 (PI: Cutright, co-I: P. Wang), 9/01/2001-11/30/2002.
  14. "Incorporation of Non-toxic Natural Product Anti-foulants, Capsaicin and Zosteric Acid, Into Silicone Coatings for Enhanced Antifouling Performance, National Sea Grant (R/MB-2), \$85,620 (PI: B. Newby, co-I: T Cutright), 10/1/2002-10/1/2004.
  15. "Unrestricted Research - Containment and Remediation of TPH in Open Waters - Universal Remediation Corp, \$3520 (Fall 2005).
  16. "Study of the metal-binding proteins for the uptake, translocation and sequestration of toxic metals in *Helianthus annuus*" - Ohio Plant Biotechnology Consortium (WEIR026), \$48,000 (R. Wei, H VanKuelen, CSU).
  17. Scholarships for bioinnovations and environmental applications – NSF DUE-0966426, \$600,000, Feb 15 2010 May 31, 2015. (PI: T Cutright, co-I: E. Evans, J. Pan)
  18. Estimating the carbon footprint of polypropylene fiber reinforced concrete – Euclid Chemical Company, \$25,000, Nov 15, 2011-Jun 15 2012 (PI: A. Patnaik, co-I: T Cutright)
  19. Assessment and treatment of sulfate-bearing soils in Ohio – Ohio Department of Transportation, SJN 134703, \$227,289, August 16 2012 – April 16, 2014 (PI: Cutright, co-I: A Abbas, J Senko).
  20. Estimate of carbon footprint of concrete aggregates – Euclid Chemical Company, \$3000 August 2012 (PI: Cutright, co-I: A. Patnaik)
  21. LCA training for Tremco – Euclid Chemical Company, \$2000 Dec 2012 (PI: Cutright, co-I: A. Patnaik).
  22. Addendum to ODOT (State Job 134703): Assessment of sulfate concentrations in water used during chemical stabilization and its potential impact on sulfate induced heave, \$40,000 May 14, 2014 – May 15, 2015 (PI: Cutright, co-I A Abbas, J Senko).
  23. Testing of acid mine drainage (AMD) microbes – Ohio Department of Natural Resources, \$52,976, July 1, 2014 – June 20, 2016 (PI: Cutright, co-I John Senko).

24. Evaluation of antimicrobial properties of Adjuvant polymer on textile fabrics and hard surfaces – Adjuvant Polymers, \$3000 – June 1-August 31, 2014.
25. Collaborative Research-Career development from senior undergraduate to navigating assistant professorship – NSF EEC 1444858, \$28,275, Sept 1 2014-August 31, 2016. (PI: Cutright, co-I: J. Puskas)
26. Planning Grant – Teagle Foundation – Sadlek, GM. (PI – CSU), with UA (PI: L. Subich, co-I: Cutright) CWRU and California State University – Chico, \$25,000, May 1 2015 – August 31, 2015.
27. Affording Opportunities for Sustained Success of STEM Students- NSF DUE 1457631, \$638,676, July 1, 2015- June 30, 2020 (PI: Cutright, co-I: D Ott, R Willits, T Leeper, M Espanol).
28. Harmful algal bloom lab for hands on activities for undergraduate, graduate and WIE activities – Dominion Foundation, \$31,000 (PI: Cutright, co-I: D Ott).
29. High school student laboratory education module: Use of abundant waste materials in concrete mix design – EED Educational Support Program, ASME, \$5000, April 1 – Dec 31, 2016 (PI: D Roke, co-I TJ Cutright).
30. Evaluation of optimal algacide sources and dosages for Ohio drinking water sources – Ohio Sea Grant and Ohio Department of Higher Education, \$291,129 (\$137,842 from agency, \$153,287 UA match) – April 1, 2016 – June 30, 2018 (PI: Cutright, co-I: D Ott, L Zhang, J Glowczewski City of Akron)
31. Algacide Testing of SeClear – SePro Research and Technology, \$5000 -Jun 2 2017-Aug 31, 2017 (PI: Cutright, Co-I: D.W. Ott)
32. Phase I: Evaluation of the Ohio Department of Transportation's current storm sewer cleaning operations – ODOT, \$45,335.90, May 5 –Oct 5 2017 (PI: W. Schneider, co-I: TJ Cutright)
33. Collaborative Research: Professional Preparation of Underrepresented Minority PhD's and Post-Docs for a Career in Engineering Academia – NSF EEC-1734822, \$216,908 – July 1 2017 – Jun 30 2021 (PI: TJ Cutright, Co-I RK Willits)
34. Evaluation of Potential Beneficial Reuse of AWLTR for Phosphorus Removal for Tributary Feeding into a Drinking Water Supply Reservoir - Ohio Water Development Authority, subcontract from Akron Department of Public Service, subcontract amount \$67,758 – January 1, 2018 - December 31 2020 (PI: TJ Cutright, Co-I DW Ott)

35. Efficiency of PAK27 for suppressing cyanobacteria – SePro Research and Technology, \$7000 – January 19 2018 – August 31, 2018 (PI TJ Cutright, Co-I: D.W. Ott)
36. Eckert ditch water quality improvement – Akron Department of Public Service via Ohio EPA 319, \$16,000 – May 15, 2018 – June 30, 2019 (TJ Cutright)
37. Phase II: Evaluation of the Ohio Department of Transportation's current storm sewer cleaning operations – ODOT, \$727,936, March 25 2018 – April 1, 2019 (PI: W. Schneider, Co-I: T.J. Cutright)
38. Community Industrial Assistantship – Biohabitats, \$28,553, August 27, 2018-August 25, 2019 (TJ Cutright)
39. Small scale wave tank and flume for demonstrating the impact of the shape and effects of waves on the environment– Dominion Foundation, \$5,000, May 29 2019 – August 16, 2019 (PI: Cutright, co-I: D Ott).
40. PO4 Reduction with WTR: Al-WTR In-field & Fe-WTR in Lab – Ohio Lake Erie Commission/Lake Erie Protection Fund, \$47,090, June 26 2019 – June 30, 2020. (TJ Cutright)
41. Assessment of biotic and abiotic (chemical and environmental weathering) degradation on the fate of tire and road wear particles, CenTiRe, \$207,749, August 1, 2019-August 15 2022 (PI TJ Cutright, Co-I: C Pugh)

B. Funded Internally (Total amount to date - \$42,650)

1. "Remediation of PAH Contaminated Soil with *Pseudomonas sp.* and *Nocardia paraffinae*," Faculty Research Grant 1288, \$3,000 - November 1994.
2. "Biosurfactant-Facilitated Bioremediation of Non-Aqueous Phase Contaminants," co-I: LK Ju, \$6,700 May 1996.
3. "Preliminary Respirometer Studies to Investigate the Interactive Factors that Affect Bioremediation Rates," Faculty Research Grant 1364, \$3,300 - Fall 1996.

4. "Innovative Engineering Multi-Level Design Course to Promote Active Learning," with H. Qammar, Teaching Excellence Grant, \$5,000 - Summer 1997.
5. Phytoremediation: Mother Nature's Pump & Treat – The Uptake Selectivity and Inhibition of Contaminants Treated by Plants," Faculty Research Grant 1425, \$3,400 – Fall 1998.
6. "Research II Incentive from Provost's Office for RFG 1425," \$2,000 - Spring 1999.
7. "Evaluation of zosteric acid, a natural product antifoulant, for preventing the attachment of zebra mussels," co-I: BMZ Newby, Integrative Bioscience RIG program, \$10,000 Academic yr 2008.
8. "Preliminary evaluation of the influence of environment on the corrosion behavior of materials used in air handling equipment, NCERCAMP, \$5250, co-I: TS Srivatsan and C Menzemer, summer 2014.
9. "Preliminary evaluation of the influence of environment on the corrosion behavior of materials, NCERCAMP, \$4,000 co-I: T.S. Srivatsan, summer 2015.

#### C. Equipment Donations (\$20,845)

1. Spectronic21-DV Spectrophotometer, donated from Erico Products, current value of \$1430.00
2. Miscellaneous analytical equipment, donated from First Energy, current value of \$19,415.00

### V. ACTIVITY IN PROFESSION OR DISCIPLINE

#### A. Professional Presentations

1. Cutright, T.J., Kocher, B. (Speaker), Lee, S. Supercritical Water Extraction of Town Gas Soils, invited paper for the symposium on Application of Supercritical Fluids, AIChE Spring National Meeting, Atlanta, Ga., April 17-21, 1994.
2. Cutright, T.J., Joshi, A., Lee, S. Continuous Production of  $\alpha$ -Lactase, invited paper for the symposium on Micro-pilot & Mini-pilot Scale Research Demonstration, AIChE Spring National Meeting, Atlanta, Ga., April 17-21, 1994.
3. Cutright, T.J., Joshi, A., Lee, S. In-Situ Soil Remediation Using the Fungal Strain *Cunninghamella echinulata* var. *elegans*, invited paper for the

- symposium on Environmental Issues, Summer AIChE Meeting, Denver, Co., August 15-18, 1994.
4. Cutright, T.J., Kocher, B.S., Vamosi, J.E., Lee, S. In-Situ Remediation Techniques for the Cleanup of Town Gas Soils, invited paper for the symposium on In-Situ Remediation of Contaminated Soil, ACS Emerging Technologies in Hazardous Waste Management, V, Atlanta, Ga., September 19-21, 1994.
  5. Cutright, T.J., Fullerton, K.L. (speaker), Lee, S. Biological Destructive Separation of Hazardous Contaminants from Town Gas Soils, invited paper for the symposium on Solid/Fluid Separations and Waste Reduction I, AIChE National Meeting, San Francisco, Ca., November 14-18, 1994.
  6. Sauer, N.E., Akkineni, D.K., Cutright, T.J. A Comparison of Three Bacterial Strains for the Remediation of Town Gas Soils, invited paper for the symposium In-Situ Soil Remediation, ACS Emerging Technologies in Hazardous Waste Management, VII, Atlanta, Ga., September 17-20, 1995.
  7. Haddox, D.C., Sauer, N.E., Cutright, T.J. Preliminary Respirometer Studies for the Bioremediation of PAH Contaminated Soils, invited paper for the 3rd International Environmental Symposium, Global Environmental Biotechnology Approaching the Year 2000, Boston, MA, July 15-20, 1996.
  8. Srivastava, R., Haddox, D., Cutright, T.J. (speaker), Development of Preliminary Kinetic Model for In-Situ PAH Bioremediation, invited paper for the symposium In-Situ Bioremediation of Chlorinated Solvents & DNAPLs, ACS Emerging Technologies in Hazardous Waste Management, VIII, Birmingham, Al., September 9-12, 1996.
  9. Witwer, M., Cutright, T.J. (speaker), Feasibility of Bioenhancement for a Confined Aquifer Contaminated with Petroleum Hydrocarbons, ACS Emerging Technologies in Hazardous Waste Management, IX, Pittsburgh, PA, September 15-17, 1997.
  10. Liebig, E.W., Cutright, T.J. The Effect of Nutrient Additions on Enhancing Bioremediation, ACS Emerging Technologies in Hazardous Waste Management, IX, Pittsburgh, PA , September 15-17, 1997.
  11. Smith, K., Cutright, T.J., Qammar, H.K. Kinetic Parameter Estimation & Model Development for the Bioremediation of Contaminated Soils, 216th National ACS Meeting, Boston, MA, August 23-27, 1998.
  12. Seifert, J., Cutright, T.J., (speaker), Evaluation of a New Bacterial Consortium for TPH Contaminated Soil, 216th National ACS Meeting, Boston, MA, August 23-27, 1998.

13. Ramirez, N., Ju, L.K., Cutright, T.J. Influence of Sorption Processes on the Biodegradation of Hydrophobic Organic Compounds, 2<sup>nd</sup> International Symposium on Environmental Microbiology, Santa fe de Bogota, Colombia, May 24-27, 1999.
14. Haddox, D.C., Cutright, T.J. (speaker), Evaluation of Two Bacterial Delivery Systems for the In-Situ Remediation of PAH Contaminated Sediments, 17<sup>th</sup> International Symposium on Polycyclic Aromatic Compounds, Bordeaux, France, October 25-29, 1999.
15. Ramirez, N.E., Cutright, T.J. (speaker), Sorption-Desorption of Pyrene for Colombia and New Mexico Soils, 17<sup>th</sup> International Symposium on Polycyclic Aromatic Compounds, Bordeaux, France, October 25-29, 1999.
16. Chen, H., Cutright, T.J. Role of Chelator, Fertilizer, and Rhizobacteria for Enhancing Phytoremediation of Heavy Metal Contaminated Soil, 220<sup>th</sup> National ACS Meeting, Washington D.C., August 20-25, 2000.
17. Cutright, T., Lopina, S., Qammar, H. (speaker), A Biotechnology Specialization within Chemical Engineering, AIChE Annual Meeting, Los Angeles CA, November 12-17, 2000.
18. Hwang, S., Cutright, T. Effects of Aging, Bacterial Source, and Desorption on PAH Biodegradation, Battelle In-Situ & On-site Bioremediation International Symposium, San Diego, CA, June 4-7, 2001.
19. Hwang, S., Cutright, T. Bioavailability of phenanthrene and pyrene aged for 0 and 200-d in a silty-sand soil, 222<sup>nd</sup> ACS National Meeting, Chicago, IL, August 26-30, 2001.
20. Mendez-Sangchez, N., Cutright, T., Qaio, P. Biodeterioration of submerged composites and their impact on aquatic ecosystems, 222<sup>nd</sup> ACS National Meeting, Chicago, IL, August 26-30, 2001.
21. Chinthamreddy, S., Cutright, T.J., Reddy, K. (speaker), Bioaugmentation and nutrient amendment of chromium contaminated soil by electrokinetics, 222<sup>nd</sup> ACS National Meeting, Chicago, IL, August 26-30, 2001.
22. Cutright, T.J., Engineering Ethics, SWE Regional Meeting, Akron OH November 2-3, 2001.
23. Qammar, H., Cutright, T. Structuring Program Assessment to Yield Useful Information for ChE Faculty, ASCE Annual Meeting, Nashville, TN, June 22-25, 2003.
24. Meza, L., Cutright, T. (speaker), El-Zahab, B., Wang, P. Evaluation of a New Bacterial Consortium for the Biodegradation of TCE: Comparison of Whole

- Cell and Enzymatic Degradation Efficiencies, Proceedings of 2<sup>nd</sup> European Bioremediation Conference, Chania, Crete, Greece, June 30 - July 4, 2003.
25. Turgut, C., Pepe, M.K., Cutright, T.J. Effect of EDTA on the mobilization, uptake, and selectivity of cadmium, chromium, and nickel during phytoremediation with *Helianthus annuus*, poster presentation at 12<sup>th</sup> International Symp. Environmental Pollution and its Impact on Life in the Mediterranean Region, Antalya Turkey, October 4-8, 2003.
  26. Turgut, C., Newby, B.M.Z., Cutright, T.J., A preliminary evaluation of the impact of two natural antifoulants on a natural ecosystem, poster presentation at 12<sup>th</sup> International Symp. Environmental Pollution and its Impact on Life in the Mediterranean Region, Antalya Turkey, October 4-8, 2003.
  27. Barrios, C.A., Xu, Q., Cutright, T., Newby, B.M.Z. Evaluation of antifouling properties of zosteric acid, Adhesion Society Annual Meeting, Welmington NC, February 15-18, 2004.
  28. Barrios, C.A., Xu Q., Cutright, T., Newby, B.M.Z (speaker), Zosteric acid - an effective antifoulant for reducing bacterial attachment on coatings, 228<sup>th</sup> National American Chemical Society Meeting, Philadelphia PA, August 22-26, 2004.
  29. Munn, J., Turgut, C., Cutright, T.J. (speaker), Laboratory assessment of *Thlaspi caerulescens* and *Helianthus annuus* for phytoremediation of contaminated soil, 1<sup>st</sup> Intl Environmental Sci Technology Conference, American Academy Science, New Orleans LA, Jan 23-26, 2005.
  30. Xu., Q., Barrios, C., Newby, BMZ, Cutright, T.J. (speaker), Reduction of freshwater bacteria attachment in the presence of zosteric acid, 1<sup>st</sup> Intl Environmental Sci Technology Conference, American Academy Science, New Orleans LA, Jan 23-26, 2005.
  31. Atkinson, I. Van Keulen, H., Wei, R., Cutright, T., Arsenate-induced expression of chitinase in *Helianthus annuus*, PMBB Research Symposium, Columbus OH March 2007.
  32. Atkinson, I. Van Keulen, H., Cutright, T., Wei, R. Arsenate-induced expression of chitinase in the Dwarf Sunflower *Helianthus annuus*, Society of Environmental Toxicology and Chemistry (SETAC) North America 28th Annual Meeting, Milwaukee, WI, November 12, 2007.
  33. Atkinson, I, van Keulen, H, Cutright, T, Wei, R, Identification of proteins induced by toxic metals in *Helianthus annuus* by LC-MS, Ohio Mass Spectrometry Symposium, Columbus Ohio March 2008.

34. Cutright, T. Ethics in teaching and research. University of Akron Graduate Student Orientation, August 19, 2008.
35. Cutright, T., Newby, B.M.Z. Laboratory assessment of natural product antifoulants for preventing freshwater bacteria attachment on model silicone coatings. International Soil Fertility, Land Management and Agroclimatology, Kusadasi Turkey, Oct 29-Nov 1, 2008.
36. Cutright, T., Wei, R., van Keulen, H, Laboratory assessment of *Helianthus annuus* for the phytoremediation of contaminated soils, International Soil Fertility, Land Management and Agroclimatology, Kusadasi Turkey, Oct 29-Nov 1, 2008.
37. Wei, R., van Keulen, H., Cutright, T.J., Identification of *Helianthus annuus* proteins that are upregulated when exposed to heavy metals. International Soil Fertility, Land Management and Agroclimatology, Kusadasi, Turkey Oct 29-Nov 1, 2008.
38. Atkinson, I, van Keulen, H, Cutright, T, Wei, R, Identification of proteins induced by toxic metals in *Helianthus annuus* by LC-MS, ACS, Cleveland Section, Oberlin Ohio March 2008.
39. Hasintha, C, van Keulen, H, Cutright, T, Wei, R, Identification of metal-regulated proteins in *Helianthus annuus*, Plant Molecular Biology & Biotechnology Research Symposium, Columbus Oh, April 13, 2008.
40. Barrios, C.A., Xu, Q., Cutright, T.J., Newby, BMZ (speaker), Purohit, S., Ram, J. Preventing the attachment of bacteria and mussels using zosteric acid. 2009 International meeting Marine and Off-Shore Coatings Conference, Virginia Beach, VA May 18-20, 2009.
41. Purohit, S., Ram, J., Newby, BMZ, Cutright, T.J., Preliminary evaluation of zosteric acid for preventing attachment of quagga mussels, Central Regional Meeting, ACS, Cleveland OH May 20-23, 2009.
42. Sengupta, N., Cavendar, N.D., Byrd, S.M., Ussiri, D., Cutright, T.J., Addressing global warming: taking steps to transition from a coal mining past to a carbon-sequestration/biofuel producing future through establishment of a high diversity prairie. 95<sup>th</sup> Annual Ecology Society of America, Pittsburgh, PA, Aug 1-6, 2010.
43. Badawy, H.T., Brantner, J.S., Cutright, T.J., Pasetto, P., Pilard, J.F., Milsted, A. Preliminary investigation of telechelic liquid natural rubber based coatings for preventing biofilm formation in biomedical applications. 112 General Meeting, American Microbiology Society, San Francisco June 16-19, 2012.

44. Patnaik, A., Cutright, T.J. (speaker), Greenburg, A. An introduction to carbon footprint calculations. RPM International Technical Meeting, Medina OH August 28-30, 2012.
45. Patnaik, A., Cutright, TJ, Mahoney, M., Franey, K. Carbon footprint of concrete Part I: with water reducing admixtures. RPM International Technical Meeting, Medina OH August 28-30, 2012.
46. Panwiriyarat, W., Saetung, N., Badaway, H., Khaohong, C., Pasetto, P. (speaker), Campistorn, I., Nourry, A., Pascual, S. Fontaine, L., Cutright, T, Mouget, JL, Tanrattanakul, V., Pilard, J.F. Natural rubber: an old material for new applications. 182 Technical Meeting, ACS Rubber Division, Cincinnati, OH Oct 2012.
47. Cutright, T.J., Wigdahl, J. Assessment of sulfate bearing soils in Ohio, Ohio Transportation Engineering Conference, Columbus Ohio, Oct 22-23, 2013.
48. Cutright, T., Esson, J. Gold, L.H., Hallinan, K., S-STEM: Increasing STEM student recruitment, retention and success at Ohio universities. OH-PKAL, Otterbein University, Westerville OH May 16, 2015.
49. Cutright, T.J., Puskas, J., Williams, L.N, Coats, L.T., Rodrigues, D.F., Claydon, F., Easing the tortuous road that under-represented minorities travel to become engineering faculty, 122<sup>nd</sup> ASEE Annual Conference, Seattle WA June 14-17, 2015.
50. Cutright, T.J., Evans, E., Use of an undergraduate, interdisciplinary design team to address the remediation of fracking water and acid mine drainage. 122<sup>nd</sup> ASEE Annual Conference, Seattle WA June 14-17, 2015.
51. Gowda, S., Srivatsan, T.S. (speaker), Cutright, T.J., Patnaik, A., Payer, J. Influence of environment induced degradation on quasi static behavior of an annealed alloy steel. Processing and Fabrication of Advanced Materials, Kansai University Osaka Japan, Dec 18-20, 2015.
52. Freese, K., Jambor, K., Abbas, A. (Speaker), Senko, J., Cutright, T. Origin and Formation of Sulfate in Ohio Soils. Transportation Research Board Annual Meeting, Washington DC, January 10-14, 2016.
53. Crafton, E., Trowbridge, Ott, D., Zhang, L., Cutright, T.J. Use of historic and environmental data to forecast HAB formation. U.S. Algal Toxin Conference, Akron OH May 9-11, 2016.
54. Sharma, S., Lee M., Pritchard, C., Cutright, T., Senko, J. Mediation of coal mine-derived acid mine drainage with the introduction of pristine soil. Microbe 2016, Boston, MA. June 2016.

55. Senko, J., Sharma, S., Pritchard, C., Cutright, T. Keynote: Tracking the distributions of microbial communities and activities in acid mine drainage in Appalachia, USA. Goldschmidt, Yokohama June 26-July 1, 2016.
56. Gao, A., Crafton, E., Ott, D., Zhang, L., Cutright, T.J. Preliminary evaluation of PAK27 for treating cyanobacteria blooms in Ohio reservoirs, poster at Understanding Algal Blooms: State of the Science Conference, Toledo Ohio September 15, 2016.
57. Trowbridge, P., Crafton, E., Zhang, L., Ott, D., Cutright, T.J. Preliminary understanding of the impact of nutrients on algal blooms via a stochastic approach, poster at Understanding Algal Blooms: State of the Science Conference, Toledo Ohio September 15, 2016.
58. Sharma, S., Lee, M., Cutright, T.J. Senko, J.M. Can soil associated microorganism remediate coal mine-derived acid mine drainage? Presented at 5<sup>th</sup> Annual Midwest Geobiology Conference, University of Cincinnati Oct 15, 2016.
59. Sharma, S., Lee, M., Cutright, T., Senko, J. Potential for remediation of coal mine-derived acid mine drainage by soil-associated microorganisms. Water Management Association of Ohio Conference & Symposium, Columbus OH, November 2016.
60. Bao, R., Cutright, T., Chen, L., Zhu, J, Tao, J. Predicting models and methods for soil erosion control and slurry infiltration (poster). 96<sup>th</sup> Annual Transportation Research Board, Washington DC Jan 8-12, 2017.
61. Sharma, S., Lee, M., Cutright, T.J., Senko, J.M. Role of genomics in effective bioremediation – potential for remediation of coal mine derived acid mine drainage by soil associated microorganisms. (poster) Microbial Genomics & Metagenomics Workshop, DOE Joint Genome Institute, Walnut Creek, CA, February 27-March 3, 2017.
62. Trowbridge, P., Ott, D.W., Cutright, T.J., Zhang, L. HAB event prediction via rainfall runoff, Akron Global Water Alliance USA Water Conference, Akron OH, May 31- June 1, 2017.
63. Crafton, E.A. (Speaker), Gao, A. (Speaker), Zhang, L., Ott, D.W., Cutright, T.J., Evaluating effectiveness of three different algaecides for Lake Rockwell. Akron Global Water Alliance USA Water Conference, Akron OH, May 31- June 1, 2017.
64. Crafton, E.A. (Speaker), Gao, A., Trowbridge, P., Zhang, L., Ott, D., Cutright, T., Preliminary assessment of nutrient dependency of a mixed cyanobacteria culture. 2017 Ohio Water Environment Association (OWEA) Technical Conference, Cincinnati OH, June 29-30, 2017.

65. Crafton, E.A. (Speaker), Gao, A., Ott, D., Cutright, T., Cyanobacteria and nutrients: a complex relationship. Ohio Water Environment Association (OWEA) Membership meeting, Akron OH, September 14, 2017.
66. Balaban, M.B. (Speaker), Crafton, E., Cutright, T., Mou, X. The impact of algaecides on heterotrophic bacterial communities. 60<sup>th</sup> Annual Conference on Great Lakes Research, Detroit MI, May 15-19, 2017.
67. Bao, R., Li, J., Li, L., Cutright, T.J., Chen, L., Zhu, J., Tao, J, (Speaker). Bio-inspired bridge scour countermeasures: streamlining and biocementation. International Conference Transportation Infrastructure Materials (ICTIM), Qingdao Chin June 9-12, 2017.
68. Cutright, T.J., Willits, R.K., Ott, D.W., Espanol, M. Development of educational artifacts on wetlands by an undergraduate interdisciplinary design team. North Central Spring Conference, Akron Ohio, March 23-24, 2018.
69. Cutright, T.J., Willits, R.K. Coats, L.C., Williams, L., Rodrigues, D. "Professional preparation of underrepresented minority PhD's and post-docs for a career in engineering academia. ASEE CoNED conference, Crystal City VA, Mar 29-Apr 1, 2018.
70. Crafton, E.A. (Speaker), Glowczewski, J., Ott, D.W., Cutright, T.J., Applications of algaecides for suppression of HABs: from bench to reservoir. Akron Global Water Alliance USA Water Conference, Akron OH, May 30-31, 2018.
71. Carlton, G. (Speaker), Ott, D.W., Cutright, T. J. Evaluation of alum-based water treatment residuals to adsorb phosphorous. Akron Global Water Alliance USA Water Conference, Akron OH, May 30-31, 2018.
72. Crafton, E. (Speaker), Ott, D.W., Cutright T. J., The impact of aqueous and particulate phosphorous on cyanobacteria associated with HABs, IAGLR, Toronto Canada, June 18-22, 2018.
73. Mikita, T. (Speaker), Schneider, W., Cutright, T., Crow, M., Optimizing storm sewer cleaning operations with alternative equipment, Transportation Research Board Annual Meeting, Washington DC., January 13-17, 2019.

#### B. Lecturer in Educational Seminars and Webinars

"Bioremediation 101," Containment of Environmental Impact from Crude & Refined Petroleum Product Spills, Canton, OH, July 16, 1997.

"Bioremediation 101," Containment of Environmental Impact from Crude & Refined Petroleum Product Spills, Zainesville, OH, October 22, 1997.

“Evaluation of a New Bacterial Consortium and Kinetic Model for the Bioremediation of Contaminated Soils,” invited seminar speaker for departments of Chemical and Civil Engineering, Kansas State University, Manhattan KS, October 8, 1998.

"Phytoremediation: Mother Nature's Little Pump and Treat," invited speaker, Biology Department, The University of Akron, April 17, 1999.

"Bioremediation Applicability & Effectiveness: Evaluation of a New Bacterial Consortium for Contaminated Soils and Phytoremediation for Contaminated Aquifers," invited seminar speaker for Civil & Environmental Engineering, Univ. of Illinois at Chicago, September 17, 1999.

"Feasibility of In-Situ Bioremediation of Contaminated Sediments," invited seminar speaker for Civil & Environmental Engineering, Univ. of Illinois at Chicago, February 11, 2000.

"Effect of sorption-desorption on the biodegradation of PAH contaminated soils," invited seminar speaker for Department of Chemistry, Cleveland State University, February 27, 2004.

"Phytoremediation of heavy metal contaminated soils," Geology Department, University of Akron, November 12, 2004.

"Bioremediation of acid mine drainage contaminated soil using *Phragmites australis* and rhizosphere bacteria," Chemical Engineering Department, Ohio University, November 3, 2014.

"State of Science: HABS and Safe Drinking Water" Webinar hosted by Great Lakes Commission, July 7, 2016.

“Health Equity and Soil”, panel discussion at Local food and soil, Akron Sustainability, Akron OH October 19, 2018.

“Application of Algaecides for suppressing HABS, Biology Department, Kent State University, Kent Ohio, January 18, 2019.

### C. Honors and Awards

- 1999 - Honorary Member, Golden Key National Honor Society
- 2002 - Editor’s Award Journal Environmental Engineering, for outstanding service to the organization and profession
- 2004 - Inducted to Iota Sigma, Honor Society Women Chemists
- 2004 - 2005 Outstanding Curricular Advisor, University of Akron
- 2004 - 2007 Session chair, BST SBIR panels for NIH

- 2006 - 2010 subject editor, Journal Soil & Sediments
- 2007 - present, Associate Editor, Environmental Science Pollution Research
- 2007 – 2012, Fulbright Senior Specialist Roster
- 2008 - present, Editorial board, Open Environmental Engineering Journal
- 2011 – present, Editorial board, ISRN Soil Science
- 2012 – 2016, Editorial board, Chemosphere
- 2014 – present, Fulbright Scholar Discipline Review Committee
- 2016 – present, Associate Editor, Chemosphere
- 2019 – present, Sigma Xi

#### D. Offices Held

Secretary, Akron Section of AIChE, January 1995 - 1996  
Vice Chair, Akron Section of AIChE, January 1996 - 1999  
Chair, Akron Section of AIChE, January 2000 - 2001  
Chair Elect, University of Akron Engineering Alumni Board, 99-00  
Chair, University of Akron Engineering Alumni Board, 00-01  
Advisory Council, Women in Engineering Program, University of Akron, 2018-present

#### E. Organizational Memberships

1. American Institute of Chemical Engineers, 1990-present
2. American Chemical Society, 1991-present
3. Society of Women Engineers, 1994-present
4. Association of Environmental Engineering Professors, 1995-2002
5. American Society for Engineering Education, 1998-present
- 6.

#### F. Conference Sessions Chaired

1. Symposium on "Environmental Analyses," 20th Annual FACSS Meeting, Detroit, MI, October 1993.
2. Symposium on "In-Situ Remediation of Contaminated Soil," ACS Emerging Technologies in Hazardous Waste Management, VI, Atlanta, GA, September 19-21, 1994.
4. Symposium on "In-Situ Soil Remediation," ACS Emerging Technologies in Hazardous Waste Management, VII, Atlanta, GA, September 19-20, 1995.
5. Symposium on "Biological Waste Treatment," ACS Emerging Technologies in Hazardous Waste Management, IX, Pittsburgh, PA, September 17-19, 1997.

6. Symposium on "Bioremediation Technology," 216th National ACS Meeting, Boston, MA, August 23-27, 1998.

#### G. Patents

1. T.J. Cutright, S. Lee, No.: 5,427,944 "Bioremediation of Polycyclic Aromatic Hydrocarbon Contaminated Soil," June 27, 1995.
2. T.J. Cutright, S. Lee, Patent No.: 5,508,194, "Nutrient Medium for the Bioremediation of Polycyclic Aromatic Hydrocarbon Contaminated Soil," April 16, 1996.

#### H. Participation to improve teaching and professional competence.

1. Completed EPA course number 165.5 for "Hazardous Materials Incident Response Operations." The course meets OSHA's requirement (29 CFR 1910.120) of a minimum of 40 hours of classroom safety training for hazardous waste site workers.
2. Attended conference on "Challenges Facing New Engineering Faculty: Tools for the Trade," Penn State, State College, PA., August 12-16, 1996.
3. Nominated for, accepted and attended the Women Engineering Leadership Institute (WELI) Workshop, Anaheim CA Nov. 3-5, 2005.
4. Attended STEM symposium by 7<sup>th</sup> Brigade US Army Cadet Command, Indianapolis, IN May 5-8, 2011.

#### I. Reviewer for:

1. Biochemical and Biotechnology Progress
2. Water Research
3. Advances in Environmental Research
4. Journal of Environmental Engineering
5. International Journal of Phytoremediation
6. Canadian Journal of Microbiology
7. Environmental Pollution
8. Chemosphere
9. Waste Management
10. Journal of Environmental Engineering and Science
11. The Science of the Total Environment
12. Environmental Science and Technology
13. Journal of Soil and Sediment Contamination
14. Applied Biochemistry and Biotechnology
15. Journal of Environmental Radioactivity
16. Bioremediation Journal
17. Separation Science and Technology

18. Environmental Science and Pollution Research
19. Biochemical Engineering Journal
20. Soil Biology and Biochemistry
21. Journal of Environmental Monitoring
22. Water Environment Research
23. Journal of Hazardous Materials

## VI. PROFESSIONAL COMMUNITY SERVICE

### 1. Serving in College and University Committees:

- Safety Committee - from November 1994 to 2002
- Hazardous Waste Management, October 1996 to 1999
- Public Relations/Image, October 1996 to 1998
- Recruitment & Retention, October 1996 to December 1996
- Graduate Curriculum Committee - September 1995 to September 1998
- Radiation Safety Committee - January 2001 to 2007
- Faculty Rights and Responsibilities (campus wide) – Dec 2001 to 2004
- Graduate Student Policy Committee (campus wide) – 2002 to 2004
- STEM Academy, 2012
- Search Committee, Chemical Engineering 2012
- Biological Safety Committee (campus wide), 2012 to present
- Search Committee Corrosion Engineering (2) and Chair Geosciences, 2013
- Search Committee Geosciences Professors of Practice (2), 2014
- Faculty Senate, Fall 2014-2017
- Search Committee, Dean College of Engineering 2015-2016, 2017
- Professional Development Leave (PDL) University Review, Fall 2016-present

### 2. Serving in Civil Engineering Committees:

- Environmental Group Planning Committee - September 1994 to present
- Environmental Group Equipment Committee - October 1994 to 2002
- Graduate Committee - from September 1997 - 1999; September 2001 to 2003
- Geotech search committee – Fall 2018-present

### 3. Safety Officer

- Department of Civil Engineering - from October 1994 to 2002

### 4. Advisor to Tau Beta Pi

- 1996 to present

### 5. Engineering Alumni Board - 1997 to 2002

### 6. Educational Outreach Activities

- Nov 2014, 2015 – Patent Panel – Alcoa's Inquire, Innovate, Invent Symposium for girls.
- June 2014, 2015 – mentor two high school students, corrosion research

- 2014, 2015 - Judge UASIS posters
- 2013 Judged SEE UA Summer Research, June 13
- 2012 Judged WIE High School summer camp posters
- Sept 2010 Interactive Presentation and Lesson, BP Oil spill National Inventors Hall of Fame Middle School
- March 2001, 2002, 2003, 2004, 2014-2016 – Participant, Kids Career Day, sponsored by Women’s Studies and the Western Reserve Girl Scout Council
- June 2002, 2003, 2004, 2014 - Presenter, Middle School Girls Summer Camp
- February 2002-2005 – Presenter, Introduce a Girl To Engineering
- 2000 – 2002: Mentor, Ronald E. McNair Post-baccalaureate Achievement Program
- April 2000, 2001 – Symposium Facilitator, Strive Towards Excellence Program
- 1994-1999 - Advisor, Waste-Management Education & Research Consortium Design Competition