DANIEL DIANCHEN GANG, Ph.D., P.E.

Professor of Environmental Engineering Director of Center of Environmental Engineering and Protection (CEEP) Department Graduate Coordinator BORSF Endowed Professor in Water Studies SLEMCO/BORSF Endowed Professor in Engineering I SLEMCO/BORSF Endowed Professor of Engineering II Phillip J. Burguieres/BORSF Endowed Professor in Engineering Department of Civil Engineering, University of Louisiana at Lafayette P.O. Box 42291, Lafayette, LA 70504-2291 Tel: (337) 482-5184 (O), Fax: (337) 482-6688 Email: Gang@louisiana.edu

EDUCATION

- **Ph.D.** Civil & Environmental Engineering 2001, University of Missouri, Columbia, MO (Advisors: Dr. Shankha Banerji, Dr. Tom Clevenger. Dissertation: "Modeling of the THM and HAA formation in Missouri Waters upon Chlorination.")
- M.S. Civil & Environmental Engineering 1999, University of Missouri, Columbia, MO (Advisors: Dr. Shankha Banerji, Dr. Tom Clevenger. Dissertation: "Chromium(VI) Removal by Modified PVP Coated Silica Gel.")
- **M.S.** Fine Chemical Engineering 1988, Huazhong University of Science and Technology (HUST), Wuhan, China.
- B.S. Chemistry & Chemical Engineering 1985, Henan University, Kaifeng, China

ACADEMIC EXPERIENCE

Current

2013-present	Director, Center for Environmental Engineering Protection (CEEP), University of Louisiana at Lafayette, Lafayette, LA
2012-present	Full Professor, Dept. of Civil Engineering, University of Louisiana at Lafayette, Lafayette, LA
2011-present	<u>Graduate Coordinator,</u> Dept. of Civil Engineering, University of Louisiana at Lafayette, Lafayette, LA
Previous	
2007–2012	Associate Professor (with tenure), Dept. of Civil Engineering, University of Louisiana at Lafayette, Lafayette, LA
2006–2007	<u>Associate Professor (with tenure)</u> , Dept. of Civil Engineering, West Virginia University Institute of Technology, Montgomery, WV

- 2003–2006 <u>Assistant Professor</u>, Dept. of Civil Engineering, West Virginia University Institute of Technology, Montgomery, WV
- 2001–2003 **Research Assistant Professor**, Civil and Environmental Engineering Department, University of Missouri, Columbia, Missouri
- 1997–2001 <u>Graduate Research Assistant</u>, Civil and Environmental Engineering Department, University of Missouri, Columbia, Missouri
- 1988–1997 <u>Instructor, Assistant Professor, Associate Professor</u>, Wuhan Institute of Technology (WIT), Wuhan, P. R. China

Guest Professorship:

2011 – 2014 Adjunct Professor, School of Chemical Engineering and Pharmacy, Wuhan Institute of Technology (WIT), Wuhan, P. R. China,

AWARDS AND HONORS

- 2019 Distinguished Professor Award, presented by the President of the University of Louisiana at Lafayette
- 2018 BORSF Endowed Professor in Water Studies, University of Louisiana at Lafayette, Lafayette, LA
- 2017 Research Excellence Award, presented by the President of the University of Louisiana at Lafayette
- 2017 Senior Faculty Researcher of the Year, College of Engineering, University of Louisiana at Lafayette, LA
- 2017 Certificate of Achievement in Innovation, presented by the President of the University of Louisiana at Lafayette
- 2017 Phillip J. Burguieres/BORSF Endowed Professor of Engineering, University of Louisiana at Lafayette, Lafayette, LA
- 2016 Certificate of Achievement in Innovation, presented by the President of the University of Louisiana at Lafayette
- 2016 SLEMCO/BORSF Endowed Professor in Engineering II, University of Louisiana at Lafayette, Lafayette, LA
- 2016 SLEMCO/BORSF Endowed Professor in Engineering I, University of Louisiana at Lafayette, Lafayette, LA
- 2016 ACS Publications Award. Certificate of Recognition. American Chemical Society
- 2015 Inducted into Phi Kappa Phi Honor Society
- 2014 Phillip J. Burguieres/BORSF Endowed Professor of Engineering, University of Louisiana at Lafayette, Lafayette, LA

- 2013 Certificate of Achievement in Research & Sponsored Activities, presented by the President of the University of Louisiana at Lafayette
- 2013 Research Enhancement Award, NASA/ Louisiana Space Consortium
- 2013 SLEMCO/BORSF Endowed Professor in Engineering II, University of Louisiana at Lafayette, Lafayette, LA
- 2013 SLEMCO/BORSF Endowed Professor in Engineering I, University of Louisiana at Lafayette, Lafayette, LA
- 2011 Phillip J. Burguieres/BORSF Endowed Professor of Engineering, University of Louisiana at Lafayette, Lafayette, LA
- 2011 Research Enhancement Award, NASA/ Louisiana Space Consortium
- 2010 Who's Who in the American; Marquis Publishers
- 2010 SLEMCO/BORSF Endowed Professor in Engineering II, University of Louisiana at Lafayette, Lafayette, LA
- 2010 Honorary Visiting Professorship, Wuhan Institute of Technology, P. R. China
- 2010 Chu Tian Scholar, Hubei Province, P. R. China
- 2009 Research Enhancement Award, NASA/ Louisiana Space Consortium
- 2009 Distinguished Honorary Professor, Wuhan Institute of Technology, P. R. China
- 2007 SLEMCO/BORSF Endowed Professor in Engineering II, University of Louisiana at Lafayette, Lafayette, LA
- 1999 Science and Technology Development Award of Hubei Province, P. R. China
- 1995 Teaching Excellent Award, Wuhan Institute of Technology, P. R. China

MEDIA COVERAGE

Commentaries on environmental issues and coastal restoration in Discovery Channel Canada, FOX 8, KATC3, The Daily Advertiser, La Louisiana Magazine, and Fast Company Magazine.

- 2019 Dr. Gang was filmed at the UL Eminent Faculty Awards Events
- 2019 <u>Dr. Daniel Gang spotlighting in UL Lafayette news as one of the two 2019</u> <u>Distinguished Professor</u>
- 2019 Dr. Daniel Gang was recognized by University of Louisiana Foundation
- 2017 Dr. Gang in News 15: <u>UL Grad Students Working On Device to Fight Coastal</u> <u>Erosion</u>
- 2015 <u>The Homespun Tech That's Helping to Shore up Louisiana's Disappearing</u> <u>Coastline.</u>
- 2015 <u>UL researcher teams with industry to save the coast.</u>

- 2015 Discovery Canada's show "Daily Planet" features the coastal restoration project. http://www.discovery.ca/Video?vid=536298
- 2015 <u>Discovery Channel Canada documented Dr. Gang's Coastal Restoration Research</u> <u>Project.</u>
- 2014 Dr. Gang Spotlighting in KLFY news: <u>Discovery Channel Canada to feature UL</u> Lafayette engineering project.
- 2014 Dr. Gang Spotlighting in the Daily Advertiser
- 2013 Dr. Gang's research team helps prepare Wave Robber for commercial application
- 2013 Dr. Gang in the La Louisiana magazine.
- 2011 Dr. Gang was on KATC3 TV news on August 9th 2011 commenting on mercury control technology for coal fired power plants. <u>http://www1.katc.com/news</u>

/upgrades-could-cost-lus-millions-raise-electric-prices/

RESEARCH GRANTS

- 2019-2019 "Anaerobic Digestion of Waste Products into Power and Value-Added Products." CLECO Inc. Total budget, \$324,201. Grant: G00000210 Fund: 370003 Co-PI: D. Gang (10%)
- 2018-2021 "Production of Hydrogen and Other Life Support Products using Wastewater as a Feed into a Space-based Biochemical Conversion System (BIOSYS)." NASA EPSCoR-BoRSF, Total budget, \$2,200,000. Account numbers: 340165, 360199. Co-PI.
- 2018-2021 "REU Site: Research Experience for Undergraduates in Advanced Infrastructural Materials" National Science Foundation (NSF). Research Experience for Undergrads Program (REU). Total budget, \$357,012. Senior Personal, faculty mentor. NSF-1757786
- 2018-2020 "GAMC Novel Adsorbent Development for BTEX Removal from Hydraulic Fracturing Flowback Water". Louisiana Board of Regents Support Fund (BoRSF), PoCP Program. Total budget, \$56,513. LEQSF(2018-19)-RD-D-06. PI: D. Gang (100%)
- 2018-2021 "REU Site: Healthy Streams, Healthy Coasts: An Interdisciplinary Approach to Watershed Science and Education." National Science Foundation (NSF). Research Experience for Undergrads Program (REU). Total budget, \$287,985. Senior Personal, faculty mentor.
- 2018-2019 "Evaluation of switch grass filter socks to mitigate pollution resulting from highway storm water and construction runoff." Louisiana Transportation Research Center (LTRC), TIRE program. Total budget, \$39,018. Account number: 360174: Co-PI: D. Gang (35%)

- 2018-2022 "Graduate Fellowships in Systems Engineering Focusing on Smart Engineering System" BoR Traditional Graduate Fellows Program. Total budget: \$120,000. Co-PI: D. Gang (10%)
- 2010-2018 "Anaerobic Digestion of Waste Products into Power and Value-Added Products." CLECO Inc. Total budget, \$1,833,259. Grant: G00000210 Fund: 370003 Co-PI: D. Gang (10%)
- 2017-2021 "Graduate Fellowships in Systems Engineering Focusing on Lean Six Sigma Research" BoR Traditional Graduate Fellows Program. Total budget: \$120,000. Co-PI: D. Gang (10%)
- 2016-2018 "Functionalized Mesoporous Sorbents Development for Hydraulic Fracturing Flowback Water Treatment". Louisiana Board of Regents Support Fund (BoRSF), P-fund Program. Total budget, \$30,785. LEQSF(2016-17)-RD-C-15. PI: D. Gang (100%)
- 2016-2017 "Acquisition of an X-ray Diffractometer for Research and Training in Oil and Gas Exploration and Materials Evaluation". Louisiana Board of Regents Support Fund (BoRSF), Traditional ENH Program. Total budget, \$138,359. Co-PI: D. Gang (20%)
- 2016-2020 "Recruiting PhD Students in Emerging Research Areas of Systems Engineering" BoR Traditional Graduate Fellows Program. Total budget: \$120,000. Co-PI: D. Gang (10%)
- 2015-2016 "Acquisition of Adsorption Analyzer for Hydraulic Fracturing Flowback Water Treatment Education and Research". Louisiana Board of Regents Support Fund (BoRSF), Traditional ENH Program. Total budget, \$66,488. LEQSF(2015-16)-ENH-TR-32. PI: D. Gang (100%)
- 2015-2019 "Recruiting Superior Ph.D. Students in Systems Engineering" BoR Traditional Graduate Fellows Program. Total budget: \$240,000. Co-PI: D. Gang (10%)
- 2014-2015 "Field Investigation of the Wave Suppressor Sediment Collection (WSSC) System". National Science Foundation (NSF). Total budget- \$44,724. PI: D. Gang (100%) LEQSF-EPS(2014)-OPT-IN-36
- 2013-2017 "Field Investigation of the Wave Suppressor Sediment Collection (WSSC) System, a Highly Effective System for Shoreline Protection and Sediment Retention". Louisiana Board of Regents Support Fund (BoRSF), ITRS Program. Total budget- \$292,052. LEQSF (2013-2017)-RD-B-04. PI: D. Gang (100%)
- 2013-2015 "Development and Evaluation of Nano-Scaled Mesoporous Sorbents for Space Environmental Control and Life Support System (ECLSS)". National Aeronautics and Space Administration (NASA). Total budget-\$70,237. PI: D. Gang (100%) NNX10A140H

- 2012-2015 "Non-Rock Alternatives to Shoreline Protection", USDA-NRCS LA-16 Non-Rock Alternative, subcontractor to JESCO ENVIRONMENTAL. Total Budget, \$955,426.24. Co-PI: Dr. Gang (30%).
- 2012-2014 "Coastal Protection and Restoration Field Study Using Wave Suppressor Sediment Collection (WSSC) System". National Science Foundation (NSF). Total budget- \$52,092. PI: D. Gang (100%) LEQSF-EPS(2012)-OPT-IN-17
- 2011-2014 "Modular Sediment Retention and Shoreline Protection Structure". Louisiana Board of Regents Support Fund (BoRSF), ITRS Program. Total budget- \$267,206. LEQSF (2011-14)-RD-B-07. PI: D. Gang (100%)
- 2011-2012 "Development of Novel Adsorbents for Space Lightweight Contingency Water Recovery Systems (LWC-WRS)". National Aeronautics and Space Administration (NASA). Total budget- \$60,129. PI: D. Gang (100%). NASA(2011)-DART-47
- 2010-2012 "Fusion Splicer for the Development of a Multidisciplinary Optical Fiber Program at UL Lafayette". Louisiana Board of Regents Support Fund (BoRSF), Traditional ENH Program. Total budget, \$46,500. Co-PI: D. Gang (20%)
- 2009-2011 "Development of Nano-Scale Mesoporous Sorbents for Space Water Recovery Systems (WRS)". National Aeronautics and Space Administration (NASA). Total budget- \$63,670. PI: D. Gang (100%) NASA/LEQSF (2005-2010)-LaSPACE
- 2009-2010 "Extending the Optical Fiber Technology into Oil and Natural Gas Wells". Louisiana Board of Regents Support Fund (BoRSF), Traditional ENH Program. Total budget, \$58,816. Co-PI: D. Gang (20%)
- 2008-2010 "Removal of Selenium (Se) from Coal Mine Wastewater by GAC-Based Iron-Containing Adsorbents." Department of Energy (DOE) CAST program. Total budget- \$60,202. PI: D. Gang (100%)
- 2007-2008 "Ordered Mesoporous Carbons Sorbents Development for Space Missions and International Space Stations Water Recovery Systems (WRS)" National Aeronautics and Space Administration (NASA). Total budget-\$20,000. PI: D. Gang (100%) NNG05GH22H
- 2006-2009 "Removal of Selenium (Se) from Coal Mine Wastewater by GAC-Based Iron-Containing Adsorbents" (Department of Energy (DOE) CAST program. Total budget- \$202,290. PI: D. Gang (100%)
- 2006-2007 "Integrated Environmental Engineering, Chemical Engineering and Mercury Emissions Control Laboratory" (WVEPSCoR Instrumentation Grants Program, Total budget: \$15,000. PI: D. Gang (100%)

2007	"Development of Biotechnology Laboratory Facilities to Support Teaching and Research" (PI: Jay M. Wiedemann, Funded by WV EPSCoR Instrumental Grants Program, Total budget: \$17,000. Co-PI: D. Gang (20%)
2005-2007	"Mercury Reduction from Coal Power Plant Emission Using Functionalized Ordered Mesoporous Carbons (FOMCs)" (Department of Energy (DOE) CAST program. Total budget- \$168,645. PI: D. Gang (100%)
2004	"WVEPSCoR Proposal Preparation Mini-Grant" (Funded by West Virginia EPSCoR. Total budget: \$4,500. PI: D. Gang (100%)
2004-2007	"Recovery of Chromium and Arsenic from Toxic Waste Stream by Reactive Polymer-Coated Absorbents" (Funded by the Department of Energy (DOE) CAST program. Total budget- \$228,175. PI: D. Gang (100%)
2004-2008	"Semester/Summer Undergraduate Research Experience (SURE)" (Funded by West Virginia EPSCoR. Total budget: \$70,000. Co-PI: D. Gang (20%)
2003-2004	EPA Small Public Water Systems Technology Assistance Center (Funded by USEPA, Total budget- \$450,000. Co-PI: D. Gang (20%)
2002-2003	EPA Small Public Water Systems Technology Assistance Center (Funded by USEPA, Total budget- \$450,000. Co-PI: D. Gang (10%)
1995-1996	"WHE-1 flocculent preparation and application in treatment electroplating wastewater." Funded by Wuhan Fengfan Electroplating Co. Ltd. Total budget: RMB 80,000 (\$10,000). PI: D. Gang (100%)

US PATENTS

- Multi-functional open graded friction course for in situ treatment of highway or roadway runoff. US patent NO: 15/337,211. Role-- Lead Inventor; Patent Holder UL Lafayette
- 2. Biorefinery method and system for isolated environments. US patent App: 15/828,809. Co-Inventor; Patent Holder UL Lafayette
- Synthesis of a Novel Ordered Mesoporous Carbon Using COK-19 Template for Water and Wastewater Treatment. US Provisional Patent Application No. 16/053,084. Role-- Lead Inventor; Patent Holder UL Lafayette

PUBLICATIONS

Books and Book Chapters

- Daniel Gang. (2017) "Modeling of THM and HAA Formation in Surface Waters upon Chlorination" Scholars' Press, ISBN: 978-620-2-30160-2. First Edition, Bahnhofstraße 28, D-66111 Saarbrücken, Germany 2017 (388 pages)
- 2. Wan Shou, Ruixuan Guo, Heng Pang, Gang, D. (2015) "Ordered Mesoporous

Carbon: Fabrication, Characterization, and Application as Adsorbents." in Dekker Encyclopedia of Nanoscience and Nanotechnology, Taylor & Francis, ISBN: 1-4398-9134-6; eISBN: 1-4398-9135-4, Third Edition, pp.1-14. DOI: 10.1081/E-ENN3-120053279

 Gang, D.; Bajpai, R.; and Banerji, S. (2010) "Wastewater Treatment Processes." in Dennis R. Heldman (ed) *Encyclopedia of Agricultural, Food, and Biological Engineering*, Taylor & Francis, ISBN: 978-1-4398-1111-5, Second Edition, 1: 1, 1825-1836

Peer-reviewed Publications

(*) Indicates advisees (graduate students)

- Zaki Uddin Ahmad*, Lunguang Yao, Jin Wang, Daniel Gang, Fahrin Islam*. Qiyu Lian*, Mark E. Zappi. (2019) "Neodymium embedded ordered mesoporous carbon (OMC) for enhanced adsorption of sunset yellow: Characterizations, adsorption study and adsorption mechanism", *Chemical Engineering Journal*. 359, 814-826. DOI.org/10.1016/j.cej.2018.11.174 IF = 6.74
- Zaki Uddin Ahmad*, Qiyu Lian*, Mark E. Zappi, Prashanth R. Buchireddy, Daniel Gang (2019). "Adsorptive Removal of Resorcinol on a Novel Ordered Mesoporous Carbon (OMC) Employing COK-19 Silica Scaffold: Kinetics and Equilibrium Study", *Journal of Environmental Sciences*. 75, 207-317 <u>DOI:</u> 10.1016/j.jes.2018.04.014 IF = 3.24
- 6. Dhan Lord B. Fortela. Wayne W. Sharp, Emmanuel D. Revellame, Rafael Hernandez, Daniel Gang, Mark E. Zappi (2019). "Computational Evaluation for Effects of Feedstock Variations on the Sensitivities of Biochemical Mechanism Parameters in Anaerobic Digestion Kinetic Models", *Biochemical Engineering Journal*. 142, 212-233 DOI: 10.1016/j.bej.2019.01.001 IF = 3.23
- Zaki Ahmad*, Qiyu Lian*, Mark Zappi, Prashanth Buchireddy, Daniel Gang (2019). "Adsorptive removal of resorcinol onto surface modified ordered mesoporous carbon: Kinetics and equilibrium study", *Environmental Progress & Sustainable Energy (AIChE)*. 38 (S1), S386-S397 DOI: abs/10.1002/ep.13070 IF = 1.33
- Stan Barskov, Mark Zappi, Prashanth Buchireddy, Stephen Dufreche, John Guillory, Daniel Gang, Rafael Hernandez, Rakesh Bajpai, Jeff Baudier, Robbyn Cooper, Richard Sharp (2019). "Torrefaction of biomass: A review of production methods for biocoal from cultured and waste linocellulosic feedstocks", *Renewable Energy*. 142, 624-642 <u>doi.org/10.1016/j.renene.2019.04.068</u> IF = 5.0
- 9. Dhan Lord Fortela, Kyle Farmer, Alex Zappi, Wayne Sharp, Emmanuel Revellame, Daniel Gang, Mark E. Zappi (2019). "A Methodology for Global Sensitivity Analysis of Activated Sludge Models: Case Study with Activated Sludge Model No. 3 (ASM3)", *Water Environment Research*. 1-12. DOI: 10.1002/wer.1127 IF = 0.84
- 10. Zaki Uddin Ahmad*, Bing Chao*, Mas Iwan Konggidinata*, Qiyu Lian*, Mark E.

Zappi, <u>Daniel Gang.</u> (2018) "Molecular Simulation and Experimental Validation of Resorcinol Adsorption on Ordered Mesoporous Carbon (OMC)", *Journal of Hazardous Materials*. 354, 258-263. <u>DOI: 10.1016/j.jhazmat.2018.04.072</u> IF = 6.39

- Aditya Rajeev Kaveeshwar*, Ponnusamy Senthil Kumar, Emmanuel D. Revellame, <u>Daniel Gang</u>, Mark E. Zappi, Ramalingam Subramaniam (2018) "Adsorption properties and mechanism of barium (II) and strontium (II) removal from fracking wastewater using pecan shell based activated carbon", *Journal of Cleaner Production*, 193, 1-13. <u>DOI:10.1016/j.jclepro.2018.05.041</u> IF = 6.21
- Ning Zhang*, <u>Daniel Gang</u>, Louis McDonald, Lian-Shin Lin (2018) "Background electrolytes and pH effects on selenate adsorption using iron-impregnated granular activated carbon and surface binding mechanisms." *Chemosphere* 195, 166-174. DOI: 10.1016/j.chemosphere.2017.11.161 IF = 4.51
- Grant Besse*, Salman Sakib*, Daniel Gang, Donald Hayes (2018) "Performance characterization of a novel marsh shoreline protection technology: The Wave Suppression and Sediment Collection (WSSC) system." *Ocean Engineering* 154, 216-225. DOI: 10.1016/j.oceaneng.2018.02.013 IF = 2.18
- 14. Aditya Kaveeshwar*, Senthil Kumar Ponnusamy, Emmanuel Revellame, <u>Daniel Gang</u>, Mark Zappi, Ramalingam Subramaniam (2018) "Pecan Shell based Activated Carbon for Removal of Iron (II) from Fracking Wastewater: Adsorption Kinetics, Isotherm and Thermodynamic Studies." *Process Safety and Environmental Protection (Elsevier Science)* 114, 107-122, <u>DOI 10.1016/j.psep.2017.12.007</u> IF = 3.12
- 15. Salman Sakib*, <u>Daniel Gang</u>, Grant Besse*, Bao-bao Tang*, Nicholas McCoy*, Donald Hayes (2018) "Laboratory study and mathematical modeling of a novel marsh shoreline protection technology for sand collection" *Applied Ocean Research* 76, 22-33. <u>DOI:10.1016/j.apor.2018.04.007</u> IF = 1.60
- 16. Fahrin Islam*, Qiyu Lian*, Ahmad, Zaki*; Lunguang Yao; Zappi, Mark; <u>Gang, D.</u>
 (2018) "Non-point Source Pollution." *Water Environment Research (WEF)*, 90(10), 1872-1898. <u>DOI.org/10.2175/106143017X15131012188033</u> IF = 0.89
- Mas Iwan Konggidinata*, Bing Chao*, Qiyu Lian*, Ramalingam Subramaniama, Mark Zappi, and <u>Daniel Gang</u>. (2017). "Equilibrium, kinetic and thermodynamic studies for adsorption of BTEX onto Ordered Mesoporous Carbon (OMC)." *Journal* of Hazardous Materials, 336, 249-259 <u>DOI: 10.1016/j.jhazmat. 2017.04.073</u>. IF = 6.39
- <u>Gang, D</u>; Khattak, M.; Ahmed*, I.; and Rizvi*, H. (2017) "Highway Runoff in Situ Treatment: Copper and Zinc Removal through Multi-Functional Open Graded Friction Course (MOGFC)." *ASCE Journal of Environmental Engineering*, 143(3), 04016087. <u>DOI: 10.1061/(ASCE)EE.1943-7870.0001172</u>. IF = 1.27

- Bing Chao*, Mas Iwan Konggidinata*, Lu Lin*, Mark Zappi, and <u>Daniel Gang</u>.
 (2017) "Effect of Carbon Precursors and Pore Expanding Reagent on Ordered Mesoporous Carbon for Resorcinol Removal." *Journal of Water Process Engineering (Elsevier Science)*, 17, 256-263. DOI: 10.1016/j.jwpe.2017.05.002
- 20. Ahmad, Zaki*; Sanin, Maxim*; Lian, Qiyu*; Zappi, Mark; <u>Gang, D.</u> (2017) "Nonpoint Source Pollution." *Water Environment Research (WEF)*, 89(10), 1580-1602. DOI: <u>10.2175/106143017X15023776270593</u> IF = 0.89
- R. Subramaniam, <u>D. Gang</u>, J. Nie*, R. Bajpai, S. Dufreche, J. Baudier, R. Sharp, and Mark E. Zappi1. (2017) "Application of Response Surface Methodology for Optimization of Treatment for an Aged Landfill Leachate Using Fenton's Oxidation Reagent." *Environmental Engineering Science*, 34(10) 731-739. DOI:10.1089/ees.2016.0613. IF = 1.48
- Zappi, M.E., Bajpai, R., Hernandez, R., Taconi, K. and <u>Gang, D.</u> (2017) "Reclamation of Smaller Volumes of Petroleum Hydrocarbon Contaminated Soil Using an Innovative Reactor System: A Case Study Evaluation of the Design. *Agricultural Sciences*, 8, 600-615. <u>DOI: 10.4236/as.2017.87046</u>
- Ren*, Hanlong; Shou*, Wan; Ren*, Chong; <u>Gang, D.</u> (2016) "Preparation and post-treatments of ordered mesoporous carbons (OMC) for resorcinol removal." *International Journal of Environmental Science and Technology (Springer)*, 13(6), 1505-1514 DOI: 10.1007/s13762-016-0990-7 IF = 2.34
- Alam*, R.; Benson, B.; Visser, J.; <u>Gang, D.</u> (2016) "Response of estuarine phytoplankton to nutrient and spatio-temporal pattern of physico-chemical water quality parameters in little vermillion bay, Louisiana." *Ecological Informatics (Elsevier Science)*, 32, 79-90. DOI:10.1016/j.ecoinf.2016.01.003 IF = 2.18
- Shou*, W.; Chao*, B.; Ahmad*, Z.; <u>Gang, D.</u> (2016) "Ordered mesoporous carbon preparation by the in situ radical polymerization of acrylamide and its application for resorcinol removal." *Journal of Applied Polymer Science*, 133(19), 43426. DOI:10.1002/app.43426 IF = 1.77
- Zaki Uddin Ahmad*; Salman Sakib*; and Gang, D. (2016) "Non-point Source Pollution." *Water Environment Research (WEF)*, 88(10), 1594-1619. DOI: 10.2175/106143016X14696400495497 IF = 0.96
- Zappi, ME; R Hernandez; <u>Gang, D;</u> R Bajpai, CH Kuo, Hill DO. (2016) "Treatment of groundwater contaminated with high levels of explosives using advanced oxidation processes." *International Journal of Environmental Science and Technology (Springer)*, 13(12) 2767-2778 DOI:<u>10.1007/s13762-016-1109-x</u> IF = 2.34
- Benson, B.; Meyer, B.; Bajpai, R.; <u>Gang, D.</u>; Dufreche, S and Zappi, M. (2016) "Growth Kinetics, Light Dynamics, and Lipid Production in Microalgae from Sugar-Mill Ponds." *Chemical and Biochemical Engineering Quarterly*, 30(3) 331-339

DOI:10.15255/CABEQ.2016.852 IF = 0.91

- 29. Fortela, Dhan; Hernandez, R.; Chistoserdov, A.; Zappi, M.; Bajpai, R.; <u>Gang, D.</u>; Revellame, E.; and Holmes, W. (2016) "Biodiesel profile stabilization and microbial community selection of activated sludge feeding on acetic acid as carbon source." *American Chemical Society (ACS) Sustainable Chemical Engineering*, 4, 6427–6434 DOI: 10.1021/acssuschemeng.6b01140. IF = 5.27.
- McCoy*, N.; Tang*, B.; Besse*, G.; <u>Gang, D</u>.; Hayes, D. (2015) "Laboratory study of a novel marsh shoreline protection structure: Wave reduction, silt-clay soil collection, and mathematical modeling." *Coastal Engineering (Elsevier Science)*, 105, 13-20. <u>DOI:10.1016/j.coastaleng.2015.08.003</u> IF = 2.76
- McCoy*, Nicholas; Chao*, Bing; and Gang, D. (2015) "Non-point Source Pollution." Water Environment Research (WEF), 87(10), 1576-1594. DOI: <u>https://doi.org/10.2175/106143015X14338845156263</u> IF = 0.66
- 32. Ahemed*, I.; Shou*, W.; and <u>Gang, D.</u> (2014) "Non-point Source Pollution." *Water Environment Research* (*WEF*), 86(10), 1692-1713.
 DOI: <u>https://doi.org/10.2175/106143014X14031280668335</u> IF = 1.15
- 33. Guo*, R.; Guo, J.; Yu, F.; and <u>Gang, D.</u> (2013). "Synthesis and Surface Functional Group Modifications of Ordered Mesoporous Carbons for Resorcinol Removal." *Microporous and Mesoporous Materials (Elsevier Science)*, 175, 141-146. DOI: <u>https://doi.org/10.1016/j.micromeso.2013.03.028</u>IF = 3.55
- 34. Yan*, D.; <u>Gang, D</u>; Zhang, N.; and Lin, L.-S. (2013) "Adsorptive Selenite Removal Using Iron-Coated GAC: Modeling Selenite Breakthrough with the Pore Surface Diffusion Model." *ASCE Journal of Environmental Engineering*, 139(2), 213-219. DOI: <u>https://doi.org/10.1061/(ASCE)EE.1943-7870.0000633</u> IF = 1.27
- Alam*, R.; Dufreche, S.; Hayatdavoudi, A.; and <u>Gang, D.</u> (2013) "Non-point Source Pollution." *Water Environment Research (WEF)*, 85(10), 1715-1733. DOI: <u>https://doi.org/10.2175/106143013X13698672322822</u> IF = 1.06
- 36. Jin*, S.; Yem Hua.; Li, C.; Zou, B.; and <u>Gang, D.</u> (2013) "Catalytic hydrodechlorination of chlorinated dioxins in α-propanediol-water solution." DOI: <u>10.3969/j.issn.1674-2869.2013.12.002</u> Journal of Wuhan Institute of Chemical Technology, 12, 7-11.
- 37. Deng, Z.-Q., Sun*, S., and <u>Gang, D.</u> (2012) "Modeling Nitrate-nitrogen Removal Process in First Flush Reactor for Stormwater Treatment." *Bioprocess and Biosystems Engineering (Springer)*, 35, 865-874. DOI: <u>10.1007/s00449-011-0671-3</u> IF = 1.99
- Nie*, Jing; <u>Gang, D.</u>; Benson, B.; and Zappi, M. (2012) "Non-point Source Pollution." *Water Environment Research (WEF)*, 84(10), 1642-1657. DOI: <u>https://doi.org/10.2175/106143012X13407275695634</u> IF = 0.88

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- 137. Nicholas McCoy. "Functionality Evaluation of the Wave Suppressor and Sediment Collection (WSSC) System: Wave Reduction, Sediment Collection, Mathematical Model, and Preliminary Field Evaluation." M.S. Thesis, University of Louisiana at Lafayette, Spring 2015. 140 pages. UMI 1593246
- 138. Imtiaz Uddin Ahmed. "Highway Runoff in Situ Treatment: Development and Evaluation of Multi-Functional Open Graded Friction Course (MOGFC) for Copper and Zine Removal." M.S. Thesis, University of Louisiana at Lafayette, Spring 2015, 86 pages. UMI 1592787
- Hanlong Ren. "Modification and Characterization of Ordered Mesoporous Carbons for Resorcinol Removal." M.S. Thesis, University of Louisiana at Lafayette, Fall 2014, 71 pages. UMI 1585869
- 140. Rifat Quamrul Alam, "Development and Enhancement of a Mechanistic Model in Little Vermillion Bay: Incorporation of Stochastic Cloud Cover and Nutrient Flux as They Affect Light Dynamica and Phtoplankton Growth" M.S. Thesis, University of Louisiana at Lafayette, Summer 2014
- 141. Shokoofeh Golkhari Bagheini, "Basic Principles of Oil-Water Separation by Hydrocyclone" M.S. Thesis, University of Louisiana at Lafayette, Spring 2014, 93 pages. UMI 1557551
- 142. Jing Nie, "Landfill Leachate Treatment by Fenton's oxidation" M.S. Thesis, University of Louisiana at Lafayette, Fall 2013, 88 pages. UMI 1585908
- 143. Qilin Bao, "Microalgae Growth and Lipid Productivity in a Vertical Flat-Plate Photobioreactor: A Mechanistic Model Development" M.S. Thesis, University of Louisiana at Lafayette, Fall 2013, 131 pages. UMI 1553873
- 144. Ruwaida Bari. "Analysis of Water Parameters, Light Dynamics and Phytoplankton Growth Kinetics in Little Vermilion Bay: Implications for Mechanistic Model Development" M.S. Thesis, University of Louisiana at Lafayette, Spring 2013
- 145. Ruixuan Guo. "Synthesis and Surface Modification of Ordered Mesoporous Carbons for Resorcinol Removal." M.S. Thesis, University of Louisiana at Lafayette, Summer 2012
- 146. Prabhat Kiran Tiwari. "Quantification of Bucket Sediment Residuals." M.S. Thesis, University of Louisiana at Lafayette, Summer 2012
- 147. Ning Zhang. "Study of Chemical States, Composition and Adsorption Behavior for Iron Coated Granular Activated Carbon (Fe-GAC) in Terms of Selenate Removal and Feasible Adsorbent Modifications." Ph.D. Dissertation, West Virginia University, Spring 2011, Co-Chair

- 148. Lu Lin. "Development and Evaluation of Ordered Mesoporous Carbon for TOC Removal." M.S. Thesis, University of Louisiana at Lafayette, Spring 2011, Chair
- 149. Dong Yan. "Selenite Removal by Adsorption Using Iron-Coated Granular Activated Carbon and Column Study." M.S. Thesis, University of Louisiana at Lafayette, Spring 2010, Chair
- 150. Ning Zhang. "Selenite Removal Using GAC based Iron-Coated Adsorbents." M.S. Thesis, West Virginia University, Fall 2007 Co-Chair
- 151. Ravi Kumar Kadari. "Removal of Hexavalent Chromium and Trivalent Arsenic from Aqueous Solutions." M.S. Thesis, West Virginia University Institute of Technology, Spring 2006, Chair

Technical Reports

- 152. Gang, D. (2018). "Functionalized Mesoporous Sorbents Development for Hydraulic Fracturing Flowback Water Treatment." A Final Technical Report submitted to Louisiana Board of Regents (LEQSF(2016-17)-RD-C-15). Baton Rouge, LA 70821. 43 pp
- 153. Gang, D. (2017). "Field Investigation of the Wave Suppressor Sediment Collection (WSSC) System, a Highly Effective System for Shoreline Protection and Sediment Retention." A Final Technical Report submitted to Louisiana Board of Regents (LEQSF(2013-16)-RD-B-04). Baton Rouge, LA 70821. 97 pp
- 154. <u>Gang, D</u>. (2016). "Acquisition of Adsorption Analyzer for Hydraulic Fracturing Flowback Water Treatment Education and Research." A Final Technical Report submitted to Louisiana Board of Regents (LEQSF(2015-16)-ENH-TR-32). Baton Rouge, LA 70821. 35 pp
- 155. <u>Gang, D</u>. (2015). "Coastal Protection and Restoration Field Study Using Wave Suppressor Sediment Collection (WSSC) System." A Final Technical Report submitted to Louisiana Board of Regents (LOUISIANA EPSCoR (2013-14)-OPT-IN). Baton Rouge, LA 70821. 37 pp
- 156. <u>Gang, D</u>. (2015). "Development and Evaluation of Nano-Scaled Mesoporous Sorbents for Space Environmental Control and Life Support System (ECLSS)". A Final Technical Report submitted to LaSPACE, Louisiana State University. Baton Rouge, LA 70803. 43 pp
- 157. <u>Gang, D.</u> (2014). "Modular Sediment Retention and Shoreline Protection Structures." A Final Technical Report submitted to Louisiana Board of Regents. Baton Rouge, LA 70821. 68 pp
- 158. <u>Gang, D.</u> (2014). "Coastal Protection and Restoration Field Study Using Wave Suppressor Sediment Collection (WSSC) System." A Final Technical Report submitted to Louisiana Board of Regents. Baton Rouge, LA 70821. 31 pp

- 159. <u>Gang, D.</u> (2012). "Development of Novel Adsorbents for Space Lightweight Contingency Water Recovery Systems." A Final Technical Report submitted to Louisiana Board of Regents. Baton Rouge, LA 70821. 35 pp
- 160. <u>Gang, D</u>. (2011). "Development of Nano-Scale Mesoporous Sorbents for Space Water Recovery Systems (WRS)". A Final Technical Report submitted to LaSPACE, Louisiana State University. Baton Rouge, LA 70803. 30 pp
- 161. <u>Gang, D</u>. (2010). "Removal of Selenium (Se) from Coal Mine Wastewater by GAC-Based Iron-Containing Adsorbents". A Final Report submitted to the Center for Advanced Separation Technologies (CAST), Virginia Tech, Blacksburg. Virginia. 30 pp
- 162. <u>Gang, D</u>. (2009). "Mercury Reduction From Coal Power Plant Emission Using Functionalized Ordered Mesoporous Carbons (FOMCs)". A Final Report submitted to the Center for Advanced Separation Technologies (CAST), Virginia Tech, Blacksburg. Virginia. 23 pp.
- 163. <u>Gang, D</u>. (2007). "Recovery of Chromium and Arsenic from Toxic Waste Stream by Reactive Polymer-Coated Adsorbent". A Final Report submitted to the Center for Advanced Separation Technologies (CAST), Virginia Tech, Blacksburg. Virginia. 50 pp.
- 164. <u>Gang, D.</u> (2003). "N-Nitrosodimethylamine (NDMA) Occurrence in Missouri". A Final Report submitted to the EPA Technology Assistance Center, Columbia, Missouri. 11pp.
- 165. <u>Gang, D</u>. (2003). "Endocrine Disruptors (EDs) Occurrence and Impacts on Drinking Water Systems". A Final Report submitted to the EPA Technology Assistance Center, Columbia, Missouri. 16 pp.
- 166. <u>Gang, D.</u> (2003). "Field Prediction of TTHM and HAA5 Formation". A Final Report submitted to the EPA Technology Assistance Center, Columbia, Missouri. 11pp.
- 167. Tom. E. Clevenger and <u>Gang, D.</u> (2001). "Prediction of HAA & THM Speciation upon Chlorination". A Final Technical Report to US EPA Office of Ground Water and Drinking Water (OGDW). Missouri Technology Assistance Center for Small Public Drinking Water Systems, University of Missouri-Columbia, March 2001, 212 pages
- 168. Tom. E. Clevenger and <u>Gang, D.</u> (2001). "TTHM & HAA9 Formation in Ultrafiltration NOM Fraction Waters". A Final Technical Report to US EPA Office of Ground Water and Drinking Water (OGDW). Missouri Technology Assistance Center for Small Public Drinking Water Systems, University of Missouri-Columbia, March 2001, 25 pages

GRADUATE STUDENTS EDUCATION

- 2019 Zaki Uddin Ahmad. "Synthesis and Characterization of Novel Functionalized Ordered Mesoporous Carbon (OMC) for Resorcinol and Sunset Yellow Removal" Ph.D, University of Louisiana at Lafayette, Spring 2019. Chair
- 2018 Qiyu Lian. "Adsorption of Lead(II) onto Phosphate Modified Ordered Mesoporous Carbon: Kinetics, Equilibrium, Thermodynamic and diffusion-controlled Study" M.S., University of Louisiana at Lafayette, Spring 2018. Chair
- 2018 Aditya Rajeev Kaveeshwar. "Removal of Ba (II), Fe (II), and Sr (II) from Fracking Wastewater using Pecan Shell based Activated Carbon: Modelling of Adsorption Kinetics, Isotherms, and Thermodynamic Analysis" M.S., University of Louisiana at Lafayette, Spring 2018. Co-Chair
- 2018 Jinze Song. "Special Problems and Solutions in Development of Shale Gas/Oil Reservoirs" PhD, University of Louisiana at Lafayette, Fall 2018, Committee Member
- 2017 Zaki Uddin Ahmad. "Synthesis and Characterization of a Novel Ordered Mesoporous Carbon Using COK-19 Template for Resorcinol Adsorption" M.S., University of Louisiana at Lafayette, Fall 2017. Chair
- 2017 Salman Sakib. "Design Optimization and Field Performance Evaluation of the Wave Suppression and Sediment Collection (WSSC) System: Computational Fluid Dynamics (CFD) Modeling, Surface Elevation Table (SET) and Marker Clay Approaches" M.S., University of Louisiana at Lafayette, Summer 2017. Chair
- 2017 Mas Iwan Konggidinata. "Application and Modifications of Ordered Mesoporous Carbon (OMC) for BTEX Removal: Characterization, Adsorption Mechanisms, and Kinetic Studies" M.S., University of Louisiana at Lafayette, Spring 2017. Co-Chair
- 2017 Yi Weng. "Spatial Division Multiplexed Transmission and Sensing in Few-Mode Fibers" PhD, University of Louisiana at Lafayette, Spring 2017, Committee Member
- 2017 Li, Hui "Effects of Water Content, Mineralogy and Anisotropy on the Mechanical Properties of Shale Gas Rocks," Ph.D., University of Louisiana at Lafayette, Spring 2017, Committee Member
- 2017 Yi He. "Safety Effectiveness Analysis of Roundabouts in Louisiana" M.S., University of Louisiana at Lafayette, Fall 2017. Committee Member
- 2017 Ming Sun. "Prediction of Pedestrian Crashes using Behavioral, Roadway and Environmental Characteristics" Ph.D., University of Louisiana at Lafayette, Fall 2017, Committee Member
- 2016 Grant Besse. "Analysis and Optimization of the Wave Suppression and Sediment Collection System: Performance Characterization, Sand Collection, Mathematical

Modeling and Computational Fluid Dynamic Modeling." M.S., University of Louisiana at Lafayette, Spring 2016, Chair

- 2016 Bing Chao. "The Effects of Ordered Mesoporous Carbon (OMC) Structure on the Adsorption Capacity for Resorcinol Removal: Laboratory and Simulation Approaches." M.S., University of Louisiana at Lafayette, Spring 2016, Chair
- 2016 Dhan Lord Balais Fortela. "Enhancement of Microbial Oil and Biodiesel
 Production from Activated Sludge by Cultivation on Short Chain Fatty Acids"
 PhD, University of Louisiana at Lafayette, Summer 2016, Committee Member.
- 2016 2016 Tang, Baobao. "Development of Mathematical and Computational Models to Design Selectively Reinforced Composite Materials." M.S., University of Louisiana at Lafayette, Spring 2016, Committee Member
- 2015 Nicholas McCoy. "Functionality Evaluation of the Wave Suppressor and Sediment Collection (WSSC) System: Wave Reduction, Sediment Collection, Mathematical Model, and Preliminary Field Evaluation." M.S., University of Louisiana at Lafayette, Spring 2015, Chair
- 2015 Imtiaz Uddin Ahmed. "Highway Runoff in Situ Treatment: Development and Evaluation of Multi-Functional Open Graded Friction Course (MOGFC) for Copper and Zinc Removal." M.S., University of Louisiana at Lafayette, Spring 2015, Chair
- 2015 Li, Ben "Development of an Integrity Evaluation System for Well in Carbon Sequestration Fields." Ph.D., University of Louisiana at Lafayette, Fall 2015, Committee Member
- 2015 Ren, Chong. "A Comparison of Mathematical Models for Axial Force Transfer in Tubulars in Horizontal Wells under Pre-buckling and Post-buckling Conditions."
 M.S., University of Louisiana at Lafayette, Fall 2015, Committee Member
- 2014 Hanlong Ren. "Modification and Characterization of Ordered Mesoporous Carbons for Resorcinol Removal." M.S., University of Louisiana at Lafayette, Fall 2014, Chair
- 2014 Rifat Quamrul Alam, "Development and Enhancement of a Mechanistic Model in Little Vermillion Bay: Incorporation of Stochastic Cloud Cover and Nutrient Flux as They Affect Light Dynamica and Phtoplankton Growth" M.S., University of Louisiana at Lafayette, Summer 2014, Co-Chair
- 2014 Shokoofeh Golkhari Bagheini, "Basic Principles of Oil-Water Separation by Hydrocyclone" M.S., University of Louisiana at Lafayette, Spring 2014, Co-Chair
- 2014 Wan Shou, "Development of an Automated Nanoparticles Spray System for Selectively Reinforcing Polymer Composites." M.S., University of Louisiana at Lafayette, Spring 2014, Committee Member

- Hisham El-dardiry, "The use of Multi-Sensor Quantitative Precipitation Estimates for Deriving Extreme Precipitation Frequencies with Application in Louisiana."
 M.S., University of Louisiana at Lafayette, Fall 2014, Committee Member
- 2013 Jing Nie, "Landfill Leachate Treatment by Fenton's oxidation" M.S., University of Louisiana at Lafayette, Fall 2013, Co-Chair
- 2013 Qilin Bao, "Microalgae Growth and Lipid Productivity in a Vertical Flat-Plate Photobioreactor: A Mechanistic Model Development" M.S., University of Louisiana at Lafayette, Fall 2013, Co-Chair
- 2013 Ruwaida Bari. "Analysis of Water Parameters, Light Dynamics and Phytoplankton Growth Kinetics in Little Vermilion Bay: Implications for Mechanistic Model Development" M.S., University of Louisiana at Lafayette, Spring 2013, Co-Chair
- 2013 Md Abul Ehsan Bhuiyan. MS student, "Analysis of Sampling Uncertainties and Natural Variability of Rain Drop Size Distribution (DSD) and Integral Quantities Using a Cluster of Parsivel Disdrometers." M.S., University of Louisiana at Lafayette, Spring 2013, Committee Member
- 2013 Mohamma Bhuyan, "Development of Treatment Performance Models for Flexible Pavements." M.S., University of Louisiana at Lafayette, Fall 2013, Committee Member
- 2012 Ruixuan Guo. "Synthesis and Surface Modification of Ordered Mesoporous Carbons for Resorcinol Removal." M.S., University of Louisiana at Lafayette, Summer 2012, Chair
- 2012 Prabhat Kiran Tiwari. "Quantification of Bucket Sediment Residuals." M.S., University of Louisiana at Lafayette, Summer 2012, Co-Chair
- 2011 Ning Zhang. "Study of Chemical States, Composition and Adsorption Behavior for Iron Coated Granular Activated Carbon (Fe-GAC) in Terms of Selenate Removal and Feasible Adsorbent Modifications." Ph.D, West Virginia University, Spring 2011, Co-Chair
- 2011 Lu Lin. "Development and Evaluation of Ordered Mesoporous Carbon for TOC Removal." M.S. Thesis, University of Louisiana at Lafayette, Spring 2011, Chair
- 2011 Minghui Gang, "An Analytical Model for Temperature Included Stress in Well Drilling." M.S., University of Louisiana at Lafayette, Spring 2011, Committee Member
- 2010 Dong Yan. "Selenite Removal by Adsorption Using Iron-Coated Granular Activated Carbon and Column Study." M.S., University of Louisiana at Lafayette, Spring 2010, Chair
- 2007 Ning Zhang. "Selenite Removal Using GAC based Iron-Coated Adsorbents." M.S., West Virginia University, Fall 2007 Co-Chair

2006 Ravi Kumar Kadari. "Removal of Hexavalent Chromium and Trivalent Arsenic from Aqueous Solutions." M.S., West Virginia University Institute of Technology, Spring 2006, Chair

PROFESSIONAL REGISTRATION

- Registered Professional Engineer (Missouri) NO: PE-2003001035
- Registered Professional Engineer (West Virginia) NO: 16091

SELECTED PROFESSIONAL ACTIVITIES

2015-present	UL-ICaWR Research Fellow
2013-present	Member, Editorial Board, Journal of Wuhan Institute of technology
2011-present	Leader, Civil Engineering Graduate Program Accreditation Southern Association of Colleges and Schools (SACS)
2004-present	Member, Water Environment Federation (WEF), Literature Review Committee
2019	Book Reviewer, "Conventional and Sustainable Energy: Yesterday, Today and Tomorrow", by J. Liu, and S. Bashir. ACS books, 1st ed.
2019	Reviewer for AccessEngineering, McGraw-Hill, Membrane BioReactors (MBR) Wastewater Treatment Process Design Calculations Spreadsheet.
2019	Session Chair. 2019 5 th International Conference on Environmental and Bio-Engineering. Singapore, January 7-9, 2019
2018	Panelist, National Science Foundation (NSF) Proposal Review Panel, Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), Engineering. MRI P#2
2018	Panelist, National Science Foundation (NSF) Proposal Review Panel, Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), Environmental Engineering. NSF 1440 Panel #6
2018	Reviewer for AccessEngineering, McGraw-Hill, Dissolved Air Flotation (DAF) Design Calculations Spreadsheet
2018	Reviewer for AccessEngineering, McGraw-Hill, Update MBBR Process Design Workbooks
2018	Reviewer for AccessEngineering, McGraw-Hill, UASB WW Treatment Design Calculations
2016	Panelist, National Science Foundation (NSF) Proposal Review Panel, Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET), Environmental Engineering. NSF 1440 Panel #2

2016	Reviewer for AccessEngineering, McGraw-Hill, Sequencing Batch Reactor (SBR) Wastewater Treatment Spreadsheet
2016	Technical Working Group Expert (Geotechnical engineering, engineering structures). Restore Act Center of Excellence for Louisiana
2013	Book Reviewer, "Nanomaterials for Energy", by J. Liu, S. Bashir, and L. D. Chen. ACS books, 1 st ed.
2013	Book Reviewer, "Engineering Skills for Career Success", by C. Alexander and J. Watson. McGraw-Hill Science/Engineering/Math, 1 st ed.
2010	Lead in establishing "Agreement of Coordinated Undergraduate Degree Program (CUDP) between the University of Louisiana at Lafayette, USA and Wuhan Institute of Technology, People's Republic of China" (Signed April 26, 2012)
2007	Chair Local Arrangement, American Society of Engineering Education (ASEE) North Central Section 2007 Conference
2004	Book Reviewer, "Fluid Mechanics: Fundamentals and Applications", by Yunus A. Cengel and John M. Cimbala, 1 st ed.
2002-2006	Member, American Water Works Association, Organic Contaminants

PROFESSIONAL MEMBERSHIPS

2015- present Chi Epsilon Honor Society for Engineers

Control Committee

- 2013- present Coastal, Oceans, Ports, and Rivers Institute (COPRI)
- 2010- present Water Environment Federation (WEF)
- 2005-present Association of Environmental Engineering and Science Professors (AEESP)
- 2003- present American Chemical Society (ACS)
- 2001- present American Society of Civil Engineers (ASCE)
- 2001- present Environmental and Water Resources Institute (EWRI)
- 2000- present American Water Works Association (AWWA)
- 2003-2007 American Society for Engineering Education (ASEE)
- 1990-1997 Chinese Chemical Society

SELECTED INVITED PRESENTATIONS (presenter underlined)

1. Zaki Uddin Ahmad, Mark E. Zappi, <u>Gang, D.</u> (2019). "Synthesis and Characterization of Neodymium Doped Ordered Mesoporous Carbon (OMC) for Sunset Yellow Adsorption: Artificial Neural Network (ANN) Modeling". 5th International Conference on Environment and Bio-Engineering. January 7-9, 2019, Singapore.

- <u>Daniel Gang</u>, Zaki Uddin Ahmad, Mark E. Zappi (2018). "Neodymium Incorporated Ordered Mesoporous Carbon (OMC) for Enhanced Adsorption of Sunset Yellow (SY)." *World Congress on Chemistry*. November 15-17, 2018, Rome, Italy
- 3. <u>Gang, D.</u> (2018). "Ordered Mesoporous Carbon: Fabrication, Modification, Characterization, and Application as Adsorbents for Water Pollutants Removal." Beijing Jiaotong University, Beijing, P. R. China. June 20, 2018.
- 4. <u>Gang, D.</u> (**2018**). "From Disinfection by Products Control to Functional Material Development and Sustainable Design." Beijing Jiaotong University, Beijing, P. R. China. July 10, 2018.
- <u>Gang, D</u>. (2018). "Ordered Mesoporous Carbon: Fabrication, Modification, Characterization, and Application as Adsorbents for Water Pollutants Removal." Hebei University of Science and Technology, Shijiazhang, Hebei Province, P. R. China. June 27, 2018.
- 6. Qiyu Lian, <u>Zaki Uddin Ahmad</u>, Daniel Gang (**2018**). "Adsorption of Lead(II) onto Phosphate Modified Ordered Mesoporous Carbon: Kinetics, Equilibrium and Thermodynamic Study". *The Ninth International Conference on Environmental Science and Technology*. June 25 -28, Houston, TX
- <u>Zaki Uddin Ahmad</u>, Quyu Lian, Mark Zapi, Daniel Gang (2018). "Kinetics and Equilibrium Study of Resorcinol Adsorption onto Surface Modified Ordered Mesoporous Carbon". *The Ninth International Conference on Environmental Science and Technology*. June 25 -28, Houston, TX
- Zaki Uddin Ahmad, Mark E. Zappi, and <u>D. Gang</u> (2018). "Adsorptive Removal of Sunset Yellow FCF Dye onto Neodymium Modified Ordered Mesoporous Carbon." *4th Global Nanotechnology Congress and Expo*. April 16-18, Dubai, UAE
- Qiyu Lian, Zaki Uddin Ahmad, Mark E. Zappi, and <u>D. Gang</u> (2018). "Adsorption of Lead(II) onto Phosphate Modified Ordered Mesoporous Carbon: Kinetics, Equilibrium and Thermodynamic Study." *4th Global Nanotechnology Congress and Expo.* April 16-18, Dubai, UAE
- Zaki Uddin Ahmad1, Mark E. Zappi, and <u>D. Gang</u> (2017). "Synthesis and Characterization of a Novel Ordered Mesoporous Carbon Using COK-19 Template for Resorcinol Adsorption." *BIT's 7th Annual World Congress of Nano Science & Technology*. October 24-26, Fukuoka, Japan
- <u>Daniel Gang</u> (2017). "From Disinfection by Products Control, Coastal Erosion Mitigation, to Functional Material Development and Sustainable Design." 2017 International Congress of Environmental Engineering. February, 21-23, Villahermosa, Tabasco, Mexico.
- 12. Mas Iwan Konggidinata, Bing Chao, Qiyu Lian, Ramalingam Subramaniam and D.

<u>Gang</u> (2017). "Surface Modifications of Ordered Mesoporous Carbons for Adsorption of BTEX from Aqueous Solutions". *Fifth International Conference on Multifunctional Hybrid and Nanomaterials*. March 6-10, Lisbon, Portugal

- Bing Chao, Lu Lin, Mas Iwan Konggidinata, and <u>D. Gang</u> (2017). "Effect of Carbon Precursors and Pore Expanding Reagent on Ordered Mesoporous Carbon for Resorcinol Removal." *Fifth International Conference on Multifunctional Hybrid and Nanomaterials*. March 6-10, Lisbon, Portugal
- 14. <u>Gang, D.</u> (2017). "From Disinfection by Products Control to Functional Material Development and Sustainable Design." Nanyang Normal University, Nanyang, Henan Province, PRC. June 19, 2017.
- Mas Iwan Konggidinata, Bing Chao, William E Holmes, D. Gang, Rakesh Bajpai and Ramalingam Subramaniam (2016). "BTEX Removal from Synthetic Wastewater Using Ordered Mesoporous Carbons (OMCs)." 2016 AIChE Annual Meeting. November 13-18, San Francisco, CA
- <u>Dhan Lord Fortela</u>, William Holmes, Emmanuel Revellame, Andrei Chistoserdov, Rakesh Bajpai, D. Gang, Mark Zappi and Rafael Hernandez, (2016). "What If We Make Fuel Oil from Our Sanitary Sewage?" 2016 *AIChE Annual Meeting*. November 13-18, San Francisco, CA
- Aditya R Kaveeshwar, William E Holmes, D. Gang, Rakesh Bajpai and Ramalingam Subramaniam (2016). "Removal of Metals Form Industrial Wastewater Using Pecan Shell Based Activated Carbon". 2016 AIChE Annual Meeting. November 13-18, San Francisco, CA
- Bing Chao, <u>Zaki Uddin Ahmad</u>, Dr. Daniel D. Gang (2016). "Molecular Simulation and Validation Studies of Resorcinol Adsorption on Ordered Mesoporous Carbon." *The Eighth International Conference on Environmental Science and Technology*. June 6 -10, Houston, TX
- <u>Besse G.</u>, Sakib S., Jones B., and Gang, D. (2016). "Laboratory Study of a Novel Marsh Shoreline Protection Device: Sand Collection". 2016 State of the Coast Conference. June 1 to 3, New Orleans, LA
- <u>Sakib S.</u>, Besse G., Jones B., and Gang, D. (2016). "Optimization of the Wave Suppression and Sediment Collection (WSSC) System by Computational Fluid Dynamics (CFD) Simulation". 2016 State of the Coast Conference. June 1 to 3, New Orleans, LA
- <u>Besse G.</u>, Sakib S., Jones B., and Gang, D. (2016). "Computational Fluid Dynamic Model Validation and Optimization of a Novel Marsh Shoreline Protection Device". 2016 Data Flow Conference. May 9 to 10, Baton Rouge, LA 70808
- McCoy, Nicholas, and Gang, D. (2015). "The Wave Suppression and Sediment Collection (WSSC) System (Wave RobbersTM)". 2015 ASBPA National Coastal Conference. October 14 to 16, New Orleans, LA

- <u>Imtiaz U Ahm</u>ed, Gang, D.; Mohammad J Khattak, Hashim R Rizvi (2015)
 "Development and Evaluation of Multi-Functional Open Graded Friction Course (MOGFC) for Heavy Metal Removal from Highway Runoff as an in Situ Treatment" 88th Annual Water Environment Federation Technical Exhibition and Conference. September 26–30, Chicago, IL
- 24. <u>Gang, D.</u> (2015). "American Engineering and Technology Accreditation and Assessment." Beijing Jiaotong University, Bejing, PRC. (June 2015).
- 25. <u>Gang, D.</u> (2015). "Academic Research Journal Paper Writing." Wuhan Institute of Technology, Wuhan, PRC. (May 2015).
- 26. <u>Hanlong, Ren</u>; and Gang, D. (2014). "Modification and Characterization of Ordered Mesoporous Carbons for Resorcinol Removal". *2014 EPSCoR Advanced Materials and Manufacturing Industry-Academia Workshop*. November 7, New Orleans, LA
- McCoy, Nicholas, and Gang, D. (2014). "Wave Robbers™: Erosion Control and Land Reclamation: Function Evaluation, Mathematical Modeling, and Sensitivity Study". 2014 ASBPA National Coastal Conference. October 14 to 17, Virginia Beach, VA
- McCoy, Nicholas, Grant Bess, and Gang, D. (2014). "Wave Robbers™: Erosion Control and Land Reclamation: Preliminary Field Study". 2014 ASBPA National Coastal Conference. October 14 to 17, Virginia Beach, VA
- <u>Shou, Wan</u>; Chao, Bing; and Gang, D. (2014). "Improving Adsorption Capacity of Ordered Mesoporous Carbon (OMC) Through Addition of Crosslink Agent". 2014 TechConnect Word Innovation Conference & Expo. June 15-18, Washington, DC
- Hanlong, Ren; Chao, Bing; and Gang, D. (2014). "Modification and Characterization of Ordered Mesoporous Carbons for Resorcinol Removal". 2014 LaSPACE Council Meeting. October 4, Lake Charles, LA
- <u>Shou, Wan;</u> Ren, Hanlong; Ren, Chong; and Gang, D. (2014). "Synthesis and Characterization of High Ordered Mesoporous Carbon (OMC) Using Polyacrylamide for Resorcinol Removal." *The Seventh International Conference on Environmental Science and Technology*. June 9-13, Houston, TX
- <u>Ren, Hanlong</u>; Shou, Wan; Ren, Chong; and <u>Gang, D.</u> (2014). "Synthesis and Characterization of Modified Ordered Mesoporous Carbons for Total Organic Carbon (TOC) Model Compound (Resorcinol) Removal." *The Seventh International Conference on Environmental Science and Technology*. June 9-13, Houston, TX
- 33. <u>Gang, D.</u>; McCoy, Nicholas; Leblanc, Scott; and Li, Chunyan (2014). "Wave RobbersTM: Erosion Control and Land Reclamation Preliminary Function Evaluation, Field Evaluation, and Design Refinement Study". 2014 State of the Coast Conference. March 18 to 20, New Orleans, LA
- 34. Alam, Rifat; Benson, Barbara; Bari, Ruwaida; and Gang, D. (2014). "Cloud Cover,

Water Quality, and Spatial Analysis: Enhancements to a Mechanistic Model of Light Dynamics and Phytoplankton Growth in Little Vermillion Bay". 2014 State of the Coast Conference. March 18 to 20, New Orleans, LA

- <u>Gang, D.</u> (2013). "Selenium (Se) Removal by Adsorption Using Iron-Coated GAC." Chemical Engineering Department Seminar, University of Louisiana at Lafayette, Lafayette, La USA (Sept. 30th 2013)
- 36. <u>Gang, D.</u> (2013). "Selenite Removal by Iron-Coated GAC." Huanggang Normal University, Huanggang, Hubei, PRC. (June 18th, 2013)
- Jing Nie, Gang, D.; Dufreche, S.; Subramaniam, R.; Bajpai R.; and Zappi, M (2013).
 "Fenton's oxidation for landfill leachate treatment", 245th American Chemical Society (ACS) National Meeting & Exposition, April 7 - 11, New Orleans, LA.
- 38. <u>Gang, D.</u> (2013). "Selenite Removal by Adsorption using Iron-Coated GAC." Wuhan Institute of Technology, Hubei, Wuhan, PRC. (June 2013)
- 39. Jing Nie, Gang, D.; Dufreche, S.; Subramaniam, R.; Bajpai R.; and Zappi, M. (2012).
 "Fenton's oxidation pretreatment of landfill leachate for biogas production" *VerTech* 2012 Conference. November 6 8, Lafayette, LA
- 40. <u>Gang, D.</u> (2012). "Disinfection by-products (DBPs) and Endocrine Disrupting Chemicals in Water" 2012 American Water Works Association Southwest Section Annual Conference & Exposition. October 14 – 16, Lafayette, LA
- 41. <u>Ruixuan Guo</u>, and Gang, D. (2012). "Synthesis and Surface Modification of Ordered Mesoporous Carbons for Resorcinol Removal." *The Sixth International Conference on Environmental Science and Technology*. June 25-29, Houston, TX
- 42. <u>Gang, D.</u> (2012). "Chemical Hazardous Waste Treatment Phytoremediation" Hubei University of Arts and Science, Xiang Yang, Hubei, PRC. (June 2012)
- 43. Gang, D.; <u>LeBlanc, S</u>.; and Hayes, D. (2012). "Wave Robbers[™]: Erosion Control and Land Reclamation: Preliminary Function Evaluation and Design Refinement Study". *2012 State of the Coast Conference*. June 25 to 27, New Orleans, LA
- 44. Gang, D. (2012). "Phytoremediation." Wuhan Institute of Technology, Hubei, Wuhan, PRC. (June 2012)
- 45. <u>Ruixuan Guo</u>, Lu Lin, Victoria Hover, and Gang, D. (2011). "Development and Evaluation of Ordered Mesoporous Carbons for Resorcinol Removal." *The 41st International Conference on Environmental Systems*, July 17–21, Portland, Oregon
- Liang Wang, <u>Hashim R. Rizvi</u>, Mohammad J. Khattak, Gang, D. (2011).
 "Development and Evaluation of Functional Open Graded Friction Courses (FOGFC) Mixtures for In Situ Highway Runoff Treatment." *Geo-Frontiers 2011 Conference*, March 13–16, Dallas, TX
- 47. <u>Gang, D.</u> (2011). "Development of Nano-Scale Mesoporous Sorbents for Space Water Recovery Systems (WRS)" Wuhan Institute of Technology, Wuhan, PRC.

(June 2011)

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- <u>Guo, J</u>; Xiao, L; Lua, AC; Gang, D. (2010) "Activated Carbons Prepared from Biomass Solid Waste and their Applications for Gaseous Pollutant Removal." *1st Conference on Environmental Pollution and Public Health*, September 10–11, Wuhan, PR CHINA
- 50. <u>Gang, D</u>. (2010) "Functional Adsorbents Development and its Environmental Applications." 2010 China-America-Japan-Singapore Symposium on Water and Environmental Safety, May 20–21, Tsinghua University Shenzhen Graduate School, Shenzhen, PR. China
- 51. <u>Gang, D</u>. (2010). "Functional Adsorbents Development and Their Environmental Applications." Hebei University of Science and Technology, Shijiazhuang, May, 31st, PRC.
- 52. <u>Gang, D.</u> (2010). "Development and Evaluation of Functional Open Graded Friction Courses (FOGFC) Mixtures for in Situ Highway Runoff Treatment" Wuhan Institute of Technology, Wuhan, PRC. (May 2010)
- 53. <u>Gang, D.</u> (2010). "American Engineering and Technology Accreditation and Assessment." Wuhan Institute of Technology, Wuhan, PRC. (June 2010).
- 54. Ning Zhang, Gang, D.; <u>L.-S. Lin</u> (2009) "Comparison of selenite and selenate adsorption with iron-coated GAC." *The IASTED International Conference on Environmental Management and Engineering*, July 6-8, Banff, Alberta, Canada
- 55. <u>Gang, D.</u> (2009). "Recovery and Removal of Chromium and Arsenic from Mining Waste Water." South-Central University for Nationalities, Wuhan, July, 1st, PRC.
- 56. <u>Gang, D.</u> (2009). "Removal of Selenium (Se) from Coal Mine Wastewater by GAC-Based Iron-Containing Adsorbents." Wuhan Institute of technology, Wuhan, June, 9th, PRC.
- <u>Ning Zhang</u>, Lian-Shin Lin, and Gang, D. (2007) "Evaluation of GAC based Iron-Containing Adsorbents for Selenite Removal", 234th American Chemical Society (ACS) National Meeting & Exposition, August 19–23, Boston, MA.
- <u>Gang, D.</u> and Bolin Deng (2007). "Mercury Reduction from Coal Power Plant Emission Using Functionalized Ordered Mesoporous Carbons (FOMCs)". 2007 *Center for Advanced Separation Technologies (CAST) Annual Workshop*, July 24–26, Blacksburg, VA.
- 59. Lin Lian-Shin, Ning Zhang, and <u>Gang, D.</u> (2007). "Evaluation of GAC-Based Iron-Containing Adsorbents for Selenite Removal". 2007 Center for Advanced Separation

Technologies (CAST) Annual Workshop, July 24–26, Blacksburg, VA.

- Shameem Hasan, Dhanarekha Vasireddy, Zhimang Gu, Jun Fang, <u>Gang, D</u>, Baolin Deng (2007). "Use of Chitosan-iron Composite Beads for Arsenic Treatment". 2007 *Center for Advanced Separation Technologies (CAST) Annual Workshop*, July 24–26, Blacksburg, VA.
- 61. <u>Ravi Kumar Kadari1</u>, Baolin Deng, Gang, D. (2006) "Kinetics Modeling of Hexavalent Chromium Adsorption Onto Quaternized Poly(4-Vinylpyridine) Coated Activated Carbon", 231st American Chemical Society (ACS) National Meeting & *Exposition*, March 26–30, Atlanta, GA.
- Jason D. Monnell, Radisav D. Vidic, Gang, D., Andrew Karash, Evan J. Granite (2006) "Recent Advances in Trace Metal Capture Using Micro and Nano-Scale Sorbents", 23rd Annual International Pittsburgh Coal Conference, September, 25–28, Pittsburgh, PA.
- 63. Isaac Chapman. <u>Shelley Watkins</u>, and Gang, D (2006). "The Coal Industry and Mercury Pollution in West Virginia." 2006 American Society for Engineering Education (ASEE) Illinois-Indiana and North Central Joint Section Conference. March 31–April 1, 2006, Fort Wayne, Indiana
- 64. Kadari, R.; Deng, B.; and <u>Gang, D.</u> (2005). "Hexavalent Chromium Removal by Quaternized Poly(4-Vinylpyridine) Coated Activated Carbon from Aqueous Solution". 2005 Center for Advanced Separation Technologies (CAST) Annual Workshop, July 26-28, Blacksburg, VA.
- 65. <u>Thomas, G.</u>; Minnick, M., and Gang, D. (2005). "Evolution of a Freshman Software Tools Class." 2005 American Society for Engineering Education (ASEE) Annual Conference & Exposition. June 12-15, 2005, Portland, Oregon
- 66. <u>Fang, J.</u>, Gu, Z.; Deng. B., and Gang, D. (2005) "Evaluation of a Synthetic Adsorbent (GAC-QPVP) for Chromate Removal from Aqueous Solution", 230th American Chemical Society (ACS) National Meeting & Exposition, Aug. 28 to Sept. 1, Washington, DC.
- 67. <u>Gang, D.;</u> Clevenger, T. E.; and Banerji, S. K. (2004). "Effects ff Alum Coagulation on Speciation and Distribution of Disinfection by Products". *American Water Works Association (AWWA) Water Quality Technology Conference (WQTC)*, Nov. 14-18, San Antonio, Texas.
- <u>Fang, J.</u>, Deng. B., and Gang, D. (2004) "Chromate Removal by Quaternized Poly(4-Vinyl Pyridine) Coated Activated Carbon", *9th Annual Mid-America Environmental Engineering Conference*, Sept. 18, 2004, Southern Illinois University Edwardsville.
- <u>Gang, D.</u>; Luo, X.; Hinderberger, E.; and Clevenger, T. E. (2003) "Improved Nnitrosodimethylamine (NDMA) determination method using solid-phase extraction (SPE), GC/MS and chemical ionization," 226th American Chemical Society (ACS) National Meeting, September 7-11, 2003, New York, NY

- Khoo, G.; <u>Gang, D.</u>; Clevenger, T. E.; and Segar, R. (2003) "Disinfection by-product (DBP) and its precursor removal by sequential treatments of PAC, alum, PACl, and MIEX," *American Water Works Association (AWWA) Water Quality Technology Conference (WQTC)*, November 2-5, 2003, Pennsylvania, Philadelphia.
- Luo, X.; Clevenger, T. E.; and <u>Gang, D.</u> (2003) "Analytical methods comparisons of NDMA and its occurrence in Missouri," *American Water Works Association (AWWA) Water Quality Technology Conference (WQTC)*, November 2-5, Poster presentation, Pennsylvania, Philadelphia.
- 72. Cheng, J.; Clevenger, T. E.; and <u>Gang, D.</u> (2003) "HAAs/THMs variability in Missouri," *American Water Works Association (AWWA) Water Quality Technology Conference (WQTC)*, November 2-5, Pennsylvania, Philadelphia.
- Luo, X.; <u>Gang.</u> D.; Clevenger, T. E. (2003) "N-Nitrosodimethylamine (NDMA) and its occurrence in Missouri." *AWWA/WEA Joint Annual Conference (Missouri section)*. March 23 - 25, Lake Ozark, MO.
- Cheng, J.; <u>Gang, D.</u>; Clevenger, T. E. (2003) "HAAs/THMs variability in Missouri." *AWWA/WEA Joint Annual Conference (Missouri Section)*, March 23 - 25, Lake Ozark, MO.
- <u>Gang, D.</u> (2003) "Emerging Pollutants: Endocrine Disrupting Chemicals in Water." 39th WVU Tech Technical Conference, Montgomery, WV. November 20, 2003.
- Jesky, J.; <u>Gang, D</u>.; Clevenger, T. E.; Segar, R.; Crosby, D.; and Brazos, B. (2002). "Use of Biodosimetry in Evaluation UV System Performance". *Annual American Water Works Association 2002 Water Quality Technology Conference*. Nov. 10-14, Seattle, Washington.
- 77. <u>Gang, D.</u>; Segar, R. L.; Clevenger, T. E.; and Banerji, S. K. (2001) "Prediction of TTHM and HAA₉ Formation Based on the Chlorine Demand of Raw and Coagulated Surface Waters". *Annual American Water Works Association Water Quality Technology Conference*, Nov. 11-14, Nashville, Tennessee.
- <u>Gang, D.</u>; Banerji, S. K., Clevenger, T. E.; and Segar, R. L. (2001) "Modeling HAA and THM Formation in Missouri Surface Water upon Chlorination". AWWA *Missouri Section Annual Conference*, April 16 – 18, St. Louis, MO.
- 79. <u>Gang, D.</u>; Banerji, S. K.; and Clevenger, T. E. (2000) "Chromium Removal and Recovery by Modified PVP Coated Silica Gel", *Hazardous Substance Research Centers (HSRC) Research Symposium*, July 9-12, Asilomar, CA.
- 80. <u>Gang, D.</u> (2000). "Chromium Removal and Recovery by Modified PVP Coated Silica Gel." Wuhan Institute of Technology, Wuhan, Hubei PRC. (June 2000).
- <u>Gang, D.</u>; Banerji, S. K.; and Clevenger, T. E. (1999) "Chromium (VI) removal by modified PVP coated silica gel". *Annual Conference on Hazardous Waste Research*. May 24 - 27, St. Louis, MO.

82. <u>Gang, D.</u>; Banerji, S. K.; and Clevenger, T. E. (1998) "Chromium (VI) removal by reactive polymer coated silica gel". *3rd Annual Mid-America Environmental Engineering Conference (MAEEC), Oct. St. Louis, MO*

SELECTED REVIEWER FOR PROFESSIONAL JOURNALS

- Applied Surface Science (Elsevier Science)
- Bioresource Technology (Elsevier Science)
- Chemical Engineering Journal (Elsevier Science)
- Chemosphere (Elsevier Science)
- Colloid and Polymer Science (Springer)
- Desalination and Water Treatment (Taylor & Francis)
- Ecological Engineering (Elsevier Science)
- Environmental Engineering and Management Journal
- Environmental Engineering Science (AEESP)
- Environmental Science and Pollution Research (Springer)
- Environmental Science & Technology (ACS)
- Environmental Modeling and Assessment
- International Journal of Environmental Research and Public Health
- Journal of Agricultural and Food Chemistry (ACS)
- Journal of American Water Works Association (AWWA)
- Journal of Environmental Engineering (ASCE)
- Manuscript Reviewer, Journal of Environmental Engineering & Science
- Journal of Hazardous Material (Elsevier Science)
- Journal of Materials Science (Springer)
- Journal of Science of the Total Environment
- Journal of the Air & Waste Management Association
- Journal of Applied Polymer Science (Wiley)
- Journal of the American Chemical Society (ACS)
- Molecules (MDPI)
- Microporous and Mesoporous Materials (Elsevier Science)
- Reactive and Functional Polymers (Elsevier Science)

- Sensors & Actuators: B. Chemical (Elsevier Science)
- Sustainable Chemistry & Engineering (ACS)
- Water Quality Research Journal of Canada
- Water Research (Elsevier Science)
- Water Environment Research (WEF)

UNDERGRADUATE RESEARCH ADVISEES

- 2019 Joshua Broussard (under-graduate research assistant; Civil Engineering)
- 2018 Cutrer Chase (under-graduate research assistant; Civil Engineering)
- 2017 Connor McCarthy (under-graduate research assistant; Civil Engineering)
- 2017 Christopher L Cooper (under-graduate research assistant; Civil Engineering)
- 2016 Alex Williams (under-graduate research assistant; Civil Engineering)
- 2016 Austin Aucoin (under-graduate research assistant; Petroleum Engineering)
- 2016 Wenqiongzi Yin (under-graduate research assistant; Chemical Engineering)
- 2015 Brant Jones (under-graduate research assistant; Petroleum Engineering)
- 2015 Wenqiongzi Yin (under-graduate research assistant; Chemical Engineering)
- 2014 Kristopher Charpentier (under-graduate research assistant; Civil Engineering)
- 2014 Michael Kimmey (under-graduate research assistant; Civil Engineering)
- 2013 Nick McCoy (under-graduate research assistant; Civil Engineering)
- 2013 RoShan Sharma (under-graduate research assistant; Civil Engineering)
- 2013 Leonard Chauvin (under-graduate research assistant; Civil Engineering)
- 2013 Kristoper Charpentier (under-graduate research assistant; Civil Engineering)
- 2013 Michael Kimmey (under-graduate research assistant; Civil Engineering)

UNIVERSITY SERVICE

University of Louisiana at Lafayette

- 2011- present Chair, Civil Engineering Department Graduate Committee
- 2009- present Member, Environmental Engineering Specialty Minor Committee
- 2015- present Academic Advisor, Undergraduate Apprenticeship Program
- 2016- present Member, Coastal Engineering Specialty Minor Committee
- 2017- present Research fellow, Institute for Coastal & Water Research
- 2018- present Ph.D. Executive Committee, College of Engineering

2015-2017	Board Member, Institute for Coastal & Water Research Advisory	
2017	Member, Chemical Engineering Faculty Search Committee	
2016	Faculty Mentor, Senior Capstone Design Project for the St. Landry Parish Solid Waste Disposal District.	
2016	Member. Environmental Engineering Faculty Search Committee	
2016	Member, Inst. of Mate. and Res. Innovations Director Search Committee	
2016	Member, Chevron Endowed Professorship Screening Committee	
2015-2016	Member, ICaWR Director Search Committee	
2015-2016	Member, Faculty Senate Governmental Concerns Committee	
2013-2016	Member, Faculty Senate	
2015	Member, Department Tenure and Promotion Committee	
2011-2014	Member, College of Engineering Academic Affairs Committee	
2011-2014	Member, ICEE Director Search Committee	
2011-2014	Member, UL Committee on Academic Affairs and Standards	
2010-2014	Member, Faculty Grievance Committee	
2012-2013	Member, ABET Review Committee	
2012-2013	Member, ABET Outcome Assessment Committee	
2011-2012	Member, UL Graduate Council, Graduate Curriculum Committee	
2011-2012	Member, College of Engineering Academic Affairs Committee	
2011-2012	Member, Faculty Senate Governmental Concerns Committee	
2010-2013	Faculty Advisor, Chinese Students and Scholars Association (CSSA) of UL	
2010-2012	Member, Faculty Senate	
2010-2012	Co-Chair, UL-WIT Cooperation Ad-hoc Committee	
2009-2010	Faculty Team Member, UL Beausoleil Home	
2008	Member, Department Tenure and Promotion Committee	
2007	Member, ABET Outcome Assessment Committee	
2007-2011	Member, Undergraduate Curricula Committee	
2007-2011	Member, Department Resources Committee	
West Virginia University Institute of Technology		
2005-2006	Chair, Water Resources Faculty Search Committee	

- 2005-2006 Member, ABET Outcome Assessment Committee
- 2005-2006 Member, ABET Review Committee

2006-2007	Member, Faculty Status Committee
2004-2005	Member, Civil Engineering Chair Search Committee
2006-2007	Member, Academic Appeals Committee
2006-2007	Member, Research Committee, member
2005	Member, Tech R&D Assessment Committee
2006-2007	Member, Transportation Faculty Search Committee
2005-2006	Member, Geotech Faculty Search Committee
2005-2007	Member, Structure Faculty Search Committee
2003-2007	Member, Graduate Committee

RESEARCH PROJECTS IN PROGRESS OR COMPLETED

Projects in Functional Adsorbents Development and Environmental Applications

- 1. Synthesis and Characterization of Novel Functionalized Ordered Mesoporous Carbon (OMC) for Resorcinol and Sunset Yellow Removal.
- 2. Functionalized Mesoporous Sorbents Development for Hydraulic Fracturing Flowback Water Treatment
- 3. Novel Multifunctional Open Graded Friction Courses (MOGFC) Development for Insitu Highway Runoff Treatment
- 4. Development and Evaluation of Nano-Scaled Mesoporous Sorbents for Space Environmental Control and Life Support System (ECLSS)
- 5. Novel Hydrophobic Silica Adsorbent Development for in Situ Burning of Oil Spills from Sea Water
- 6. Nano-Scale Mesoporous Sorbents (NSMS) Development for Space Lightweight Contingency Water Recovery Systems (LWC-WRS)
- 7. Novel Sorbent Development for Space Missions and International Space Stations Water Recovery Systems
- 8. GAC-Based Iron-Containing Adsorbents Development for Selenium (Se) Removal from Coal Mine Wastewater
- 9. Reactive Polymer Coated Absorbents for Chromium and Arsenic Removal and Recovery from Toxic Waste Stream
- 10. Iron Based Chitosan Adsorbent Development for Arsenic Removal form Acid Mine Drainage (AMD)

- 11. Functionalized Ordered Nano-porous Carbons (FONCs) Development for Mercury Reduction from Coal Power Plant Emission
- 12. Modified Poly(4-vinylpyridine) (PVP) Coated Silica Gel Adsorbent Development for Chromium (VI) Removal from Aqueous Solution

Projects in Environmental Engineering Areas Associated with Energy Industries

- 13. Functionalized Mesoporous Sorbents Development for Hydraulic Fracturing Flowback Water Treatment
- 14. Hydrophobic Silica Sorption and In Situ Catalytic Burning of Oil Spills
- 15. Evaluation of Advanced Anaerobic Digester Technology for Distributed Power Generation
- 16. Coupling Bioreactors with Manufacturing Processes to Reduce Carbon Footprint.
- 17. Mercury Reduction from Coal Power Plant Emission Using Functionalized Ordered Nano-porous Carbons (FONCs)
- 18. Low-Maintenance Biofilter Development for Mine Influenced Water (MIW) Treatment and Metal Recovery
- 19. Removal of Selenium (Se) from Coal Mine Wastewater by GAC-Based Iron-Containing Adsorbents
- 20. Recovery of Chromium and Arsenic from Toxic Waste Stream By Reactive Polymer-Coated Absorbents
- 21. Arsenic Removal form Acid Mine Drainage (AMD) Using Iron Based Chitosan Adsorbent

Projects in Coast Restoration Area

- 1. Optimization Design of the Wave Suppressor Sediment Collection (WSSC) System through Computational Simulation Study
- 2. Field Investigation of the Wave Suppressor Sediment Collection (WSSC) System, a Highly Effective System for Shoreline Protection and Sediment Retention
- 3. Modular Sediment Retention and Shoreline Protection Structure
- 4. Coastal Protection and Restoration Field Study Using Wave Suppressor Sediment Collection (WSSC) System
- 5. Dredging Sediment Residuals Quantification

Projects in Drinking Water Quality Area

- 6. Modeling THMs and HAAs formation upon chlorination
- 7. On site prediction of TTHM and HAA₅ formation based on the chlorine demand model
- 8. The effects of dissolved organic carbon (DOC) structure on the HAA/TTHM -ratio

- 9. TTHM & HAA9 formation in ultrafiltration NOM fraction waters
- 10. Fate and transport of nitroso-dimethylamine (NDMA) in drinking water distribution systems
- 11. Chlorine decay modeling
- 12. Mechanisms and kinetics of NDMA formation in drinking water
- 13. Evaluation of conventional treatment processes for removal of nitrosodimethylamine (NDMA) from drinking water
- 14. Impact of endocrine disruptors (EDs) on drinking water systems

Projects in Wastewater Area

- 15. Landfill Leachate Treatment by Fenton's oxidation
- 16. Development of Nano-Scale Mesoporous Sorbents (NSMS) for Space Lightweight Contingency Water Recovery Systems (LWC-WRS)
- 17. Development and evaluation of Functional Open Graded Friction Courses (FOGFC) materials for in situ highway runoff treatment
- 18. Modeling nitrate-nitrogen removal process in first-flush reactor for stormwater treatment
- 19. Novel Sorbent Development for Space Missions and International Space Stations Water Recovery Systems
- 20. Chromium (VI) removal using synthesized PVP coated silica gel
- 21. WHE-1 flocculent preparation and application in treatment papermaking, electroplating, and mineral processing wastewaters

Projects in Air Pollution Control Area

- 1. Catalytic oxidation of elemental mercury using nano-titanium dioxide
- 2. Mercury Reduction from Coal Power Plant Emission Using Functionalized Ordered Nano-porous Carbons (FONCs)

TEACHING

Graduate Courses

University of Louisiana at Lafayette

CIVE 663 (3 hr) Solid and Hazardous Waste Management (PhD level)

Current issues and legislation. Collection, storage and disposal. Treatment technologies including incineration and sanitary and hazardous waste landfills.

CIVE 661 (3hr) Physicochemical Treatment Processes (PhD level)

Fundamental principles, analysis, modeling, and design of physical and chemical process that influence water quality in engineered and natural systems. Covers material balances, transport phenomena, reaction kinetics, reactor theory, sedimentation/Flotation, adsorption, membrane separation and advanced oxidation processes.

CIVE 591 (1 hr) Graduate Seminar (PhD/MS level)

CIVE 563 (3 hr) Solid and Hazardous Waste Management (MS level)

Current issues and legislation. Collection, storage and disposal. Treatment technologies including incineration and sanitary and hazardous waste landfills.

CIVE 561 (3 hr) Physicochemical Treatment Processes (MS level)

Fundamental principles, analysis, modeling, and design of physical and chemical process that influence water quality in engineered and natural systems. Covers material balances, transport phenomena, reaction kinetics, reactor theory, sedimentation/Flotation, adsorption, membrane separation and advanced oxidation processes.

CIVE 497 (3 hr) Special Topics ((senior/graduate level)

CIVE 460 (3 hr) Waste Water Treatment (senior/graduate level)

Pollutants of importance; design approach; pretreatment; primary, secondary, tertiary treatment alternatives; biological process design; sludge characterization and treatment. Wastewater treatment and collection system technical management.

University of Missouri

Cv Eng 492 Physical-Chemical Treatment Processes (graduate level)

Undergraduate Courses

University of Louisiana at Lafayette

CIVE 422 (3hr) Environmental Engineering II (senior/graduate level)

Physical, chemical, and biological treatment of water and wastewater treatment units. Examination of water and wastewater quality.

CIVE 422 (1 hr) Environmental Engineering II Laboratory (senior/graduate level)

CIVE 322 (3 hr) Environmental Engineering I (junior level)

Mass transfer, environmental chemistry, mathematics of growth, water pollution, risk assessment, water and wastewater treatment, air pollution, global atmospheric change, and hazardous and municipal solid wastes management; laboratory examination of water and wastewater quality.

CIVE 322 (1hr) Environmental Engineering I Laboratory (junior level)

CIVE 101 (1 hr) Introduction to Civil Engineering (freshman level)

Introduction to the technical practice areas, professional requirements, history and ethics of civil engineering.

West Virginia University Institute of Technology

CVLE 453 (3 hr) Civil Engineering Project (senior level)

CVLE 435 (3 hr) Solid Waste Management (senior level)

CVLE 434 (3 hr) Advanced Sanitary Engineering (senior level)

CVLE 432 (3 hr) Sanitary Engineering (junior level)

CVLE 432 (1 hr) Sanitary Engineering Laboratory (junior level)

CVLE 431 (3 hr) Hydraulic Engineering (junior level)

CVLE 431 (1 hr) Hydraulic Engineering Laboratory (junior level)

CVLE 491 (3 hr) Civil Engineering Research (senior level)

GENE 111 (3 hr) Software Tools for Engineers (freshman level)

CHEM 461 (3 hr) Principal of Environmental Chemistry (junior level)