CURRICULUM VITAE March 2020

DANNY DAVID REIBLE, PhD, PE(LA), BCEE, NAE

Donovan Maddox Distinguished Engineering Chair
Paul Whitfield Horn Professor

ADDRESS: Department of Civil and Environmental Engineering
Texas Tech University
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EDUCATION:

Ph.D. Chemical Engineering, June 1982
California Institute of Technology, Pasadena, California
Thesis: Pollutant Transport in Complex Atmospheric Flows

M.S. Chemical Engineering, June, 1979
California Institute of Technology, Pasadena, California

B.S. Chemical Engineering with highest honors, May 1977
Lamar University, Beaumont, Texas

PROFESSIONAL EXPERIENCE:

Department of Civil, Environmental and Construction Eng./Chemical Eng., Texas Tech University
- Paul Whitfield Horn Professor (4/19 -)
- Donovan Maddox Distinguished Engineering Chair (9/13-)

Department of Civil, Architectural and Environmental Engineering, University of Texas
- Adjunct Prof (9/13-9/16), Director, Center for Research in Water Resources (9/11-8/13)
- Coordinator, Environmental and Water Resources (8/07-9/10)
- Bettie Margaret Smith Chair of Environmental Health Engineering (8/04-9/13)

Department of Hydraulic Engineering, Tsinghua University, Distinguished Visiting Professor (2011-)

Department of Chemical Engineering, LSU
- Professor (8/92 – 8/04), Chevron Endowed Professor (1/98- 8/04), Emeritus (8/04-)
- Director, Hazardous Substance Research Center/South & Southwest (7/05-9/07)

Shell Professor of Environmental Engineering, University of Sydney, Sydney, Australia (7/93-7/95)

Summer Faculty Researcher, Army Research Office, Vicksburg, MS (6/90-9/90)

Registration as Professional Chemical Engineer (LA- 21708, 3/27/85, Environ. 9/13/94)

HONORS AND AWARDS:

2020 Gordon Maskew Fair Award, American Academy of Env. Egr. and Scientists
2019 Paul Whitfield Horn Professor, Texas Tech University
2017 Kappe Lecturer, American Academy of Environmental Engineers and Scientists
2015 Amundson Lecturer, University of Guadalajara, Mexico
2014 Lifetime Achievement Award, Association of Environmental Health Sciences
2014 Senior Fellow, Institute for Advanced Studies, University of Bologna
2011 Malcolm Pirnie Frontier in Research Award- Association of Environ. Egr and Science Professors
2009 Fellow, American Association for the Advancement of Science (1987 Env Sci and Egr Fellow)
2007 Fellow, American Institute of Chemical Engineers
2006 Presidential Service Award for environmental mentoring of former Soviet defense scientists
2005 Elected National Academy of Engineering for "widely used means of managing contaminated sediments"
2004 Board Certified Environmental Engineer, American Academy of Env. Engineers *by eminence*
2004 Professor and Director Emeritus, Louisiana State University
2002 Charles E. Coates Award - American Chemical Society/American Institute of Chemical Eng.
2001 Lawrence K. Cecil Award of the American Institute of Chemical Engineers
1993 Fellow, Institution of Engineers, Australia
1991 Senior Visitor, Cambridge University Department of Applied Math and Theoretical Physics
1986 New Engineering Educator Excellence Award, American Society for Engineering Education

RECENT PROFESSIONAL ACTIVITIES:

Member, Programme Advisory Board - Unconventional Hydrocarbons in the UK Energy System
Lead Foreign Expert, 111 Project on Fluvial Ecohydraulics, Tsinghua University (2018-2022)
Kappe Lecturer, American Association of Environmental Engineers and Scientists (2017)
Chair, Committee on Habitat Conservation Plan of the Edwards Aquifer Authority (2014-2019)
Chair, US UK Workshop on Environmental Impacts of Unconventional Oil and Gas Development (2015)
USACE/COPRI 2014 Project Excellence Award (in support of Maul-Foster and Zidell Remediation project)
Conference Chair, Texas Water Summit: Securing our Economic Future, May 2014
Conference Chair, Managing the Environmental Challenges of Shale Gas, ECI August 2013, Boulder, CO
EPA Science Advisory Board, Environmental Engineering Committee (2011-2015)
Associate Editor or Editorial Board, *Environmental Science and Ecotechnology (Senior Editor), Environmental Toxicology and Chemistry (2014-), Journal of Environmental Forensics* (2006-)*, Journal of Environmental Engineering* (2006-), *Limnology and Oceanography: Fluids and Environments* (2010-2017)

CURRENT ACTIVITIES:

Current Research Projects (PI unless noted)

- ESTCP – High Resolution Passive Profiling … (2017-2020) 987K (co-PI)
- ESTCP – Standardization of Polymeric Sampling….(2017-2020) 1,137 K (co-PI, TTU – 150K)
- DuPont – Mercury Assessment and Management in a Freshwater Stream (2009-2019) 925K
- DHS – Center for Critical Infrastructure, Education and Workforce Development (2015-2020) 205K (Year 1)
- USACE – Evaluation of Volatile Emissions with Passive Sampling (2017-2019) 57K
- SERDP - Development of Tools to Inform the Selection of Stormwater Controls at DoD Bases to Limit Potential Sediment Recontamination (2018-2021) 1.058 M
- Chevron – Availability of Mercury in Impacted Metals in Sediments (2017-2020) 450K
- NSF – IGE: Developing Reflective Engineers (2018-2020) 498K
- NSF - Networking for Environmental Sustainability in Arid Region Urban Communities (2019-2020) 50K
- US EPA – Long-Term Monitoring Using Passive Samplers at Roxana Marsh (2019-2020) 72K
- USACE – LDPE Sheet Field Deployment and Analytical Support, Bradford Island (2019-2020) 76K

RECENT PUBLICATIONS

Books

1. Danny D. Reible, Ed. *Sediment Processes, Assessment and Remediation,* Springer, New York, 2014

Refereed Journal Publications

1. Bailon, M. X., Park, M., Choi, Y. G., Reible, D., & Hong, Y. (2020). The application of DGTs for assessing the effectiveness of in situ management of Hg and heavy metal contaminated sediment. *Membrane Water Treatment*, 11(1), 11-23.
2. Hayman, N. T., Rosen, G., Colvin, M. A., Chadwick, B. D., Rao, B., Athanasiou, D., ... & Reible, D. D. (2020). Seasonal Toxicity Observed with Amphipods (Eohaustorius estuarius) at Paleta Creek, San Diego Bay, USA. *Environmental Toxicology and Chemistry*, 39(1), 229-239.
3. Drygiannaki, I., Rao, B., Dawson, J. A., Rakowska, M., Reible, D. D., Hayman, N. T., ... & Otto, M. (2020). Assessing sediment recontamination from metals in stormwater. *Science of The Total Environment*, 139726.
4. Odetayo, A. A., Reible, D. D., Acevedo-Mackey, D., Price, C., & Thai, L. (2020). Development of polyoxymethylene passive sampler for assessing air concentrations of PCBs at a confined disposal facility (CDF). *Environmental Pollution*, 114720.
5. Bryant, W.L., Camilli, R., Fisher, G.B., Overton, E.B., Reddy, C.M., Reible, D…. and Valentine, D.L.(2020) Harnessing a decade of data to inform future decisions: Insights into the ongoing hydrocarbon release at Taylor Energy's Mississippi Canyon Block 20 (MC20) site. *Marine Pollution Bulletin*, 155, p.111056.
6. Honarparvar, S. and Reible, D. (2020). Modeling Multicomponent Ion Transport to Investigate Selective Ion Removal in Electrodialysis. *Environmental Science and Ecotechnology*, 100007.
7. Jonker, M.T., Burgess, R.M., Ghosh, U., Gschwend, P.M., Hale, S.E., Lohmann, R., Lydy, M.J., Maruya, K.A., Reible, D. and Smedes, F. (2020) Ex situ determination of freely dissolved concentrations of hydrophobic organic chemicals in sediments and soils: basis for interpreting toxicity and assessing

bioavailability, risks and remediation necessity. *Nature Protocols*, 15(5), pp.1800-1828.
8. Honarparvar, S., Zhang, X., Chen, T., Na, C., & Reible, D. (2019). Modeling technologies for desalination of brackish water—toward a sustainable water supply. *Current Opinion in Chemical Engineering*, 26, 104-111.
9. Li, X., Huang, L., Fang, H., He, G., Reible, D., & Wang, C. (2019). Immobilization of phosphorus in sediments by nano zero-valent iron (nZVI) from the view of mineral composition. *Science of the Total Environment*, 694, 133695.
10. Liu, Y., Reible, D., Hussain, F., Fang, H. (2019). Role of bioroughness, bioirrigation and turbulence on oxygen dynamics at the Sediment-Water Interface. Water Resources Research, 55(10), 8061-8075.
11. He, G. J., Han, X., Fang, H. W., Reible, D., & Huang, L. (2019). Effects of roughness Reynolds number on scalar transfer mechanisms at the sediment-water interface. Water Resources Research, 55. https://doi.org/10.1029/2018WR024493
12. Shen, X., & Reible, D. (2019). An analytical model for the fate and transport of performance reference compounds and target compounds around cylindrical passive samplers. Chemosphere, 232, 489-495.
13. Oleszczuk, P., Rakowska, M., Bucheli, T. D., Godlewska, P., & Reible, D. D. (2019). Combined Effects of Plant Cultivation and Sorbing Carbon Amendments on Freely Dissolved PAHs in Contaminated Soil. Environmental science & technology, 53(9), 4860-4868.
14. Schneider, H., Jackson, A., Rainwater, K., Reible, D., Morse, S., Hatzinger, P., Garcia-Rubalcalva, U. (2019) "Estimation of Interstitial Velocity Using a Direct Drive High Resolution Passive Profiler" Groundwater, DOI:10.1111/gwat.12874
15. Fang, H., Ni, K., Wu, J., Li, J., Huang, L., & Reible, D. (2019). The effects of hydrogen bonding on the shear viscosity of liquid water. International journal of sediment research, 34(1), 8-13
16. Shen, X., Lampert, D., Ogle, S., & Reible, D. (2018). A software tool for simulating contaminant transport and remedial effectiveness in sediment environments. Environmental Modelling & Software, 109, 104-113.
17. Lai, H., Fang, H., Huang, L., He, G., & Reible, D. (2018). A review on sediment bioflocculation: dynamics, influencing factors and modeling. Science of The Total Environment, 642, 1184-1200.
18. Honarparvar, S., Saravi, S. H., Reible, D., & Chen, C. C. (2018) Comprehensive Thermodynamic Modeling of Saline Water with Electrolyte NRTL Model: A Study of Aqueous Sr2+-Na+-Cl−-SO42− Quaternary System, Fluid Phase Equilibria, 470, 221-231
19. M. T. O. Jonker, S. A. van der Heijden, D. Adelman, J. N. Apell, R. M. Burgess, Y. Choi, et al. including Reible, D.,(2018) "Advancing the Use of Passive Sampling in Risk Assessment and Management of Sediments Contaminated with Hydrophobic Organic Chemicals: Results of an International Ex Situ Passive Sampling Interlaboratory Comparison," Environmental Science & Technology, vol. 52, pp. 3574-3582.
20. Han, X., Fang, H., He, G., & Reible, D. (2018). Effects of roughness and permeability on solute transfer at the sediment water interface. Water research, 129, 39-50.
21. Uddameri, V., & Reible, D. (2018) Food-energy-water nexus to mitigate sustainability challenges in a groundwater reliant agriculturally dominant environment (GRADE). Environmental Progress & Sustainable Energy.
22. Cui, Z., Fang, H., Huang, L., Ni, K., & Reible, D. (2017). Effect of surface heterogeneity on phosphorus adsorption onto mineral particles: experiments and modeling. Journal of Soils and Sediments, 1-12.
23. Vlassopoulos, D., Russell, K., Larosa, P., Brown, R., Mohan, R., Glaza, E., Drachenberg, T., Reible, D., Hague, W., Mcauliffe, J. And Miller, S. (2017) Evaluation, Design, and Construction of Amended Reactive Caps to Restore Onondaga Lake, Syracuse, New York, USA. Journal of Marine Environmental Engineering, 10(1).

Current Consulting Activity

Sediment Remedial Planning and Allocation
- Lower Passaic River, NJ (2016-)
- Penobscot River, Bangor ME (2016-)
- Gowanus Canal, NY (2013 -)
- Newtown Creek, NY (2011 -)
- Portland Harbor, OR (2015 -)
- Spirit Lake, MI (2018 -)
- Activated Carbon Performance Evaluation, ADA Carbons (2020 -)