

RICHARD G. LUTHY, Ph.D., P.E., D.E.E.
Department of Civil and Environmental Engineering
Stanford University, Stanford, CA 94305-4020

Relevant Research Experience

- Director, NSF ERC for Re-inventing the Nation's Urban Water Infrastructure, ReNUWIIt, a consortium of four universities that promote new technologies and systems-level solutions for urban water systems to save resources and increase resiliency, reliability and social acceptance
- 40 years research on physiochemical processes for water quality improvement including application to water reuse & management of persistent and bioaccumulative organic contaminants

Education and Training

Ph.D., Civil Engineering (Environmental Engineering), University of California, Berkeley, CA 1976
MS, Civil Engineering (Environmental Engineering), University of California, Berkeley, CA, 1974
MS, Ocean Engineering, University of Hawai'i, Honolulu, HI, 1969
BS, Chemical Engineering, University of California, Berkeley, CA, 1967
Honorary Sc.D., Environmental Engineering, Clarkson University (2005)

Professional Experience

2000 - Silas H. Palmer Professor of Environmental Engineering, Dept. of Civil and Environmental Engineering, Stanford Univ.; Senior Fellow, Woods Institute for the Environment (2004 -)
2003 - 09 Chair, Department of Civil and Environmental Engineering, Stanford University
1996 - 99 Thomas Lord Professor of Environmental Engineering, Carnegie Mellon University
1986 - 88 Associate Dean, Carnegie Institute of Technology, Acting Dean (6/1988-12/1988)
1975 - 99 Asst/Assoc/Prof., Dept. of Civil & Env. Eng., Carnegie Mellon Univ. (Dept. Head 1989-96)
Professional Engineer (Pennsylvania, License PE-24546E, expires 9/30/2015)

Selected Awards, Recognitions and Professional Service

Gordon Maskew Fair Award, American Academy of Environmental Engineers and Scientists (2015)
External Review Committee, Dept. of Civil and Env. Eng., Univ. of California, Berkeley (2014)
Chair, NRC Committee on Beneficial Use of Graywater and Stormwater (2013 - 15)
Peer Committee, Civil Engineering, Vice Chair and Chair, National Academy of Engineering (2013-15)
Fellow, Water Environment Federation (2013)
Academy of Distinguished Alumni, Dept. of Civil & Env. Eng., Univ. of California, Berkeley (2012)
AEESP Distinguished Lecturer (2011-2012)
Chair/Member, AEESP Foundation Board (2009-2011)
Chair, Peer Review, Swiss Federal Institute of Aquatic Science and Technology (2009)
Chair, Review Panel, Helmholtz Program on Sustainable Water Resources Management, Leipzig (2009)
UC Berkeley, CEE Advisory Council (2007-2011)
Einstein Chair Professor, Chinese Academy of Sciences (2005)
National Research Council, Committee on Sediment Dredging at Superfund Megasites (2005-2007)
Chair Professor, Dept. of Environ. Sci. and Eng., Tsinghua University, Beijing, China (2004-2007)
Board Member, Water Environment Research Foundation (2003-2006)
Highly Cited Researcher, ISI (2003)
Lifetime National Associate of the National Academies, NAS, First Class of National Associates (2001)
Jack Edward McKee Medal, Water Environment Federation (2000)
National Science Foundation, Advisory Comm. for Environmental Res. and Education (2000-2003)
National Research Council, Chair, Committee on Bioavailability of Contaminants (2000-2002)
Association of Environmental Engineering and Science Professors, Service Award (1999)
Member, National Academy of Engineering (elected 1999)
Cleanup Project of the Year, US Dept of Defense, Strategic Environ. Res. and Dev. Program (1999)
National Research Council, Member, Vice Chair, Chair, Water Science and Technology Board (1997-2004)
National Research Council, Committee on Intrinsic Remediation (1997-1999)
School of Engineering Advisory Council, Stanford University, Stanford, CA (1997-1999)

Shimizu Corporation Visiting Professor, Dept. of Civil Eng., Stanford University, (1996-1997)
Pennsylvania Water Environment Association, Professional Research Award (1996)
National Research Council, Committee on Innovative Remediation Technologies (1994-1997)
Chair, Gordon Research Conference on Environmental Sciences: Water (1994)
Founders Award, USA National Committee, International Association on Water Quality (1986, 1993)
Editorial Advisory Board, Environmental Science and Technology (1992-1994)
Vice President/President, Association of Environmental Engineering & Science Professors (1986-1988)
Ph.D. Thesis Awards, Assn. of Environ. Engineering and Sci. Professors (1978, 1982, 1988, 2005)
Harrison Prescott Eddy Medal, Water Pollution Control Federation (1980)

Representative Recent Publications

Dr. Luthy has contributed to authorship of more than 200 peer-reviewed research publications and many more presentations at technical conferences and research symposia and workshops.

Ismail, N.S., Dodd, H., Sassoubre, L.M., Horne, A.J., Boehm, A.B., Luthy, R.G., "Improvement of Urban Lake Water Quality by Removal of *Escherichia coli* through the Action of the Bivalve *Anodonta californiensis*, *Environmental Science & Technology* 2015 49 (3) pp 1664-1672, DOI:10.1021/es5033212

Ismail, N.S., Müller, C.E., Morgan, R.R., Luthy, R.G., Uptake of Contaminants of Emerging Concern by the Bivalves *Anodonta californiensis* and *Corbicula fluminea*, *Environmental Science & Technology* 2015 48 (16) pp 9211-9219, DOI:10.1021/es5011576

Choi, Y., Cho, Y.-M., Werner, D., Luthy, R.G., In Situ Sequestration of Hydrophobic Organic Contaminants in Sediments under Stagnant Contact with Activated Carbon. 2. Mass Transfer Modeling, *Environmental Science & Technology* 2014 48 (3) pp 1843-1850, DOI:10.1021/es404209v

Lin, D., Cho, Y.-M., Werner, D., Luthy, R. G., "Bioturbation Delays Attenuation of DDT by Clean Sediment Cap but Promotes Sequestration by Thin-Layered Activated Carbon," *Environmental Science & Technology* 2014 48 (2), 1175-1183 DOI:10.1021/es404108h

Hering, J. G., Waite, T. D., Luthy, R. G., Drewes, J. E., Sedlak, D. L., "A Changing Framework for Urban Water Systems," *Environmental Science & Technology*, Cover Feature Article, 2013, 47 10721-10726 DOI:10.1021/es4007096

Halaburka, B. J., Lawrence, Justin E., Bischel, H. N., Hsiao, J., Plumlee, M. H., Resh, V. H., Luthy, R. G.; "Economic and Ecological Costs and Benefits of Streamflow Augmentation Using Recycled Water in a California Coastal Stream. *Environ. Sci. & Technol.*, 2013: 47, 10735-43; DOI:10.1021/es305011z

Bischel, H. N., Simon, G. L., Frisby, T. M., Luthy, R. G. Luthy, "Management Experiences and Trends for Water Reuse Implementation in Northern California," *Environmental Science & Technology*, 2012, 46 180-188, DOI: 10.1021/es202725e

Bischel, H. N.; MacManus-Spencer, L. A.; Zhang, C.; Luthy, R. G., "Strong Associations of Short-Chain Perfluoroalkyl Acids with Serum Albumin and Investigation of Binding Mechanisms," *Environ. Toxicol. & Chem.*, 2011, 30(11) 2423-2430 DOI: 10.1002/etc.647

Oen, A.M.P., Janssen, E. L.-M., Cornelissen, G., Breedveld, G.D., Eek, E., Luthy, R.G., "In-situ Measurement of PCB Porewater Concentration Profiles in Activated-Carbon Amended Sediment," *Environ. Sci. & Technol.*, 45(9) pp 4053-4059, 2011 [DOI: 10.1021/es303770c]

Choi, Y., Cho, Y.-M., Gala, W.R., Luthy, R.G., "Measurement and Modeling of Activated Carbon Performance for the Sequestration of Parent- and Alkylated-Polycyclic Aromatic Hydrocarbons," *Environ. Sci. & Technol.*, 2013 47(2) 1024-11032 DOI: 10.1021/es102694h

Examples of the Broader Impacts of Professional and Scholarly Activities. Dr. Luthy is a member of the National Academy of Engineering (elected 1999). He is a former Chair of the NRC's Water Science and Technology Board, a past member of the Board of the Water Environment Research Foundation, and a past president of the Association of Environmental Engineering and Science Professors. His research is advancing scientific and regulatory views on water reuse, and environmental risk and management of persistent and bioaccumulative contaminants. He regularly serves on Academic Visiting/External Review Committees. **Collaborators and Other Affiliations:** Ph.D. Advisor: Robert E. Selleck; collaborators noted in the above publications, and Chevron, San Ramon, CA; Norwegian Geotechnical Institute, Oslo; Newcastle University, England; Eni S.p.A., Milano, Italy; Eawag, Switzerland; UNSW, Australia.