Richard G. Luthy, Ph.D., P.E., D.E.E.

Department of Civil and Environmental Engineering
Stanford University
Yang & Yamazaki Environment & Energy Building, Room 191
473 Via Ortega, Stanford, CA 94305-4020

Telephone: (650) 721-2615
Fax: (650) 725-9720
Email: luthy@stanford.edu

Director, NSF Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure, ReNUWIt (renuwit.org)

University Appointments:

- Assistant Professor (1975-1980), Associate Professor (1980-1983), Professor (1983-1999), Department of Civil and Environmental Engineering, Carnegie Institute of Technology, Carnegie Mellon University
- Faculty Chairman-Chairman/Elect, Carnegie Institute of Technology, Carnegie Mellon University (1984-1986, 1997-1999)
- Associate Dean, Carnegie Institute of Technology, Carnegie Mellon University (1986-1988), Acting Dean (June, 1988-December, 1988)
- Head, Department of Civil and Environmental Engineering, Carnegie Institute of Technology, Carnegie Mellon University (1989-1996)
- Thomas Lord Chair Professor of Environmental Engineering, Carnegie Institute of Technology, Carnegie Mellon University (1996-1999)
- Silas H. Palmer Professor of Civil and Environmental Engineering, Stanford University, Stanford, CA (2000 - Present)
- Chair, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA (2003-2009)
- Senior Fellow, Woods Institute for the Environment, Stanford University, Stanford, CA (2005 - Present)

Previous Professional Positions:

- Junior Chemical Engineer, Hercules Incorporated, Hercules, California (Summer, 1966)
- Research Aide, Stanford Electronics Laboratory, Stanford University (Summer, 1967)
- Graduate Assistant, International Business Machines, Data Processing Center, Honolulu, Hawaii (Summer, 1969)
- Research Assistant, Department of Civil Engineering, University of Hawaii, Honolulu, Hawaii (1968-1969)
- Research Assistant, Division of Sanitary and Hydraulic Engineering, Department of Civil Engineering, University of California, Berkeley, California (1973-1975)

Research Interests: Environmental Engineering and Water Quality

- Bioavailability and physicochemical processes for sediment management and restoration
- Physicochemical processes affecting organic contaminant fate and transport
- Water reuse and ecosystem restoration
- Advancing more sustainable solutions for urban water systems, such as stormwater capture and use, and informed by a deeper understanding of institutional frameworks

Education & Honorary Degrees:

- BS in Chemical Engineering, University of California, Berkeley, California (1967)

- MS in Civil Engineering (Ocean Engineering), University of Hawaii, Honolulu, Hawaii (1969)
- MS in Civil Engineering (Environmental Engineering), University of California, Berkeley, California (1974)
- PhD in Civil Engineering (Environmental Engineering), University of California, Berkeley, California (1976)
- Honorary Doctor of Science, Clarkson University, Potsdam, NY (2005)

Military Status:

- U.S. Navy Civil Engineer Corps, Ensign, Research Project Officer, U.S. Navy Civil Engineering Laboratory, Port Hueneme, California (1970-1971)

Qualified US Navy Ship Salvage Diving Officer and Deep Submergence Vehicle Operator

- U.S. Navy Civil Engineer Corps, Lieutenant Junior Grade, Assistant Officer in Charge, Underwater Construction Team One, Davisville, Rhode Island (1971-1972)
- Navy Achievement Medal (1973)
- U.S. Navy Civil Engineer Corps, Lieutenant, Inactive Reserve (1973-1979)

Memberships in Honoraria, Societies, Associations:

- American Society of Civil Engineers
- American Water Works Association
- Water Environment Federation, Fellow
- American Chemical Society
- Association of Environmental Engineering and Science Professors
- American Academy of Environmental Engineers, Diplomate
- National Academy of Engineering

Academic Awards, Honors:

- Gordon Maskew Fair Award, American Academy of Environmental Engineers and Scientists, for significant contributions to the practice of environmental engineering and improvement of the world's environment (2015)
- WEF Fellow, Water Environment Federation (2013)
- "Re-Inventing Urban Water Systems to Increase the Sustainability of Cities," R. G. Luthy, Invited Plenary Speaker, 2nd Water Research Conference, International Water Association (January 20-23, 2013) Singapore
- Invited Congressional Brief, "Designing Urban Water Infrastructure to Save Energy and Water," Honorary Host, Senator Harry Reid, Discover Magazine and the National Science Foundation, Senate Visitors Center (April 25, 2012)
- Inaugural Class, Department of Civil and Environmental Engineering Academy of Distinguished Alumni, University California Berkeley, Berkeley, CA (2012)
- New Horizons in Engineering Distinguished Lecture, Clarkson University (2012)
- Association of Environ. Engineering and Science Professors Service Award (2012)
- Association of Environ. Eng. and Science Professors Distinguished Lecturer, presentations at 12 locations in the US and Canada (2011-2012)
- Inaugural Pool Lecture, U. So. Carolina (2011)
- Chancellor's Lecture, U. Missouri (2011)

- Visiting Professorship, Swiss Federal Institute of Aquatic Science and Technology [Eawag], Dübendorf, Switzerland (September – November, 2009)
- CH2M-Hill Inaugural Lecture, Virginia Institute of Technology (2008)
- Feng Lecture, Univ. of Mass. (2007)
- Lichtenstein Distinguished Lecture, Ohio State University (2007)
- Distinguished Lecturer, University of Texas, Dept. Civil, Arch. & Env. Eng. (2007)
- Shaw Distinguished Lecture, North Carolina State University (2006)
- Vernon L. Snoeyink Distinguished Lecturer, University of Illinois (2006)
- PhD thesis award (Outstanding Doctoral Dissertation Award), Association of Environmental Engineering and Science Professors [with John R. Zimmerman] (2006)
- Elected Einstein Professor of the Chinese Academy of Sciences, Beijing, China (August 22, 2005)
- Honorary Doctor of Science, Clarkson University (2005) ["For his significant contributions to interdisciplinary research in physicochemical processes in environmental systems and the safety of our Nation's water supply."]
- Chair Professor, Dept. of Environ. Sci. and Eng., Tsinghua University, Beijing, China (2004-2007)
- John Henske Distinguished Lecture, Yale University (2004)
- Board Member, Water Environment Research Foundation (2003-2006)
- Appointed Chair Professor, Department of Environmental Science and Engineering, Tsinghua University, Beijing, China (2003-2006)
- Recognized as a Highly Cited Researcher in "Ecology and the Environment", and in "Engineering," by Thomson ISI [Institute for Scientific Information], awarded to the top ranked researchers (0.5 percentile) in their field in terms of citations (http://www.isihighlycited.com/) (2003)
- National Science Foundation, Advisory Comm. for Environmental Res. and Education (2000-2003)
- National Research Council, Chair, Committee on Bioavailability of Contaminants (2000-2002)
- National Research Council, Member and Vice Chair/Chair, Water Science and Technology Board (1997-2004)
- Lifetime National Associate of the National Academies, NAS, First class of National Associates (2001)
- Jack Edward McKee Medal, Water Environment Federation (2000)
- Association of Environmental Engineering and Science Professors, Service Award (1999)
- Member, National Academy of Engineering (elected 1999)
- Cleanup Project of the Year, US Department of Defense, Strategic Environmental Research and Development Program (1999)
- Shimizu Corporation Visiting Professor, Department of Civil and Environmental Engineering, Stanford University, Stanford, California (1996-1997)
- Pennsylvania Water Environment Federation, Professional Research Award (1996)
- Reith Distinguished Lecture, School of Civil Engineering, Purdue University (1996)
- Chair, 1994 Gordon Research Conference on Environmental Sciences
- Founders Award, best paper award in Water Research for 1992, presented by the USA National Committee of the International Association on Water Quality (1993)
- PhD thesis award (Engineering-Science Doctoral Thesis Award), presented by the Association of Environmental Engineering Professors as advisor for outstanding thesis, with J.R. Mihelcic (1988)

- Chair, NSF/AEEP Conference on Fundamental Research Directions in Environmental Engineering (1988)
- Professor of the Year Award, Pittsburgh Section of the American Society of Civil Engineers for distinction in civil engineering education and research (1987)
- Vice President/President, Association of Environmental Engineering Professors (1986-1988)
- Kappe Distinguished Lecture, Department of Civil Engineering, Pennsylvania State University (1987)
- Founders Award, best paper award in Water Research for 1985, presented by the USA National Committee of the International Association on Water Pollution Research and Control (1986)
- PhD thesis award (Nalco Award), presented by the Association of Environmental Engineering Professors for significant physiochemical research with R.W. Walters (1982)
- Harrison Prescott Eddy Medal, best paper award presented by the Water Pollution Control Federation for outstanding research in fundamentals of wastewater treatment (1980)
- PhD thesis award (Nalco Award), presented by the Association of Environmental Engineering Professors for significant chemical research in industrial waste treatment, with R.E. Selleck (1978)
- George Tallman Ladd Award, Carnegie Institute of Technology; research award presented to young engineering faculty (1977)

Professional Registration:

- Professional Engineer, Commonwealth of Pennsylvania, PE-24546-E.

Patents:

- Provisional Patent Application: "Method for Automated Control of a Combined Greywater/Stormwater System with Forecast Integration," Inventors: Marcus Quigley, Geosyntec Consultants; Brian Halaburka, Stanford University; Richard Luthy, Stanford University; David Sedlak, University of California, Berkeley. Docket Number: GST-003Xq800, filed October 24, 2012
- Richard G. Luthy and Eun Ah Kim, "Polysulfide-Rubber Coated Activated Carbon (PSR-AC) as a Multi-Sorbent for Mercury and Polychlorinated Biphenyls (PCBs)," US Patent No. 8,748,338 B2, June 10, 2014
- R. G. Luthy and U. Ghosh, "In Situ Stabilization of Persistent Hydrophobic Organic Contaminants in Sediments Using Coal- and Wood-Derived Carbon Sorbents," US Patent Application, October 16, 2002, patent award, US 7,101,115 B2, Sept. 5, 2006.
- Method for Treating Water Contaminated with Cyanide, Co-inventors, Rajat S. Ghosh, David A. Dzombak, and John R. Smith, Patent No. 5,837,145 issued November 17, 1998.
- Underwater Angle Measuring Device (with J.B. Ciani), U.S. Patent Number 3,783,624, issued January 8, 1974.

Professional Activities (selected):

- National Academy of Engineering: Peer Committee, Civil Engineering, Vice Chair and Chair (2013-2016)
- Department of Civil and Environmental Engineering, University of California, Berkeley, External Review Committee, October 2014
- Board, CEE Academy of Distinguished Alumni, U. of California, Berkeley (2013-2016)

- Chair and Member, AEESP Foundation Board (2009-2011)
- International Advisory Committee, Division of Environment, Hong Kong University of Science and Technology, July 26-27, 2010, Hong Kong.
- Visiting Committee, College of Engineering, Nanyang Technological University, March 3-5, 2010, Singapore
- Extramural Review Committee, Graduate Programs in Chemical and Environmental Engineering, University of California – Riverside, January 25-26, 2010
- Chair, Committee to Review Communication Activities, Board on Environmental Studies and Toxicology, Division on Earth and Life Sciences, National Research Council, Washington, DC. 2009-2010
- Chair, Peer Review, Swiss Federal Institute of Aquatic Science and Technology (2009)
- Chair, Review Panel, Helmholtz Program on Sustainable Water Resources Management, Leipzig (2009)
- Civil and Environmental Engineering Advisory Council, University of California, Berkeley, CA [2007- 2011]
- MIT Corporation Visiting Committee, Department of Civil and Environmental Engineering, Massachusetts Institute of Technology [2006-2008]
- National Research Council, Committee on Effectiveness of Dredging at Superfund Megasites [2006-2007]
- External Reviewer, Department of Civil and Environmental Engineering, UCLA, 2005
- Member, Community Resource Group for Implementation of Stanford University's General Use Permit, Santa Clara County Planning Department [2003-]
- External Review Team Member, Department of Civil and Environmental Engineering, Duke University, March 25-26, 2004
- Board Member, Water Environment Research Foundation, Alexandria, VA [2003-2006]
- Chair, Peer Review Committee, Swiss Federal Institute for Environmental Science and Technology (EAWAG), September 29-October 3, 2003, Dubendorf, ETH, Switzerland
- Co-Chair, National Science Foundation, U.S./Italy Workshop on Sediment Management Research: A CLEANER Scenario, December 9-10, 2002, Arlington, VA
- Asst. Chair, Workshop 2: Collaborative Large-scale Engineering Networks for Environmental Research, Defining the Concept of Environmental Field Facilities (EFFs), University of Minnesota, October 20-22, 2002
- Reviewer, Making the Nation Safer: The Role of Science and Technology, Committee on Science and Technology for Countering Terrorism, National Research Council, National Academies, June, 2002
- Host and co-chair, NSF workshop on Collaborative Large-scale Engineering Networks for Environmental Protection, Stanford University, Stanford, CA, Dec 4-5, 2001
- Workshop on Graduate Enrollment Issues in Environmental Engineering, University of California, Berkeley (September 7, 2001)
- National Research Council, Chair, Water Science and Technology Board (2001-2004)
- Program Review Committee, Department of Civil and Environmental Engineering, The University of Washington (2001)
- Advisory Committee, Department of Geography and Environmental Engineering, The Johns Hopkins University (1998-)
- National Science Foundation, Advisory Comm. for Environmental Res. and Education (2000-2003)
- National Research Council, Water Science and Technology Board, Chair, Committee on Bioavailability (2000-2002)

- External Review Team, Division of Environmental Engineering, University of Toronto (1999)
- Advisory Council, School of Engineering, Stanford University, Stanford, CA (1998-2000)
- Progress Review, Environmental Science, The Ohio State University (1998)
- Visiting Committee, Co-Chair, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA (1997)
- National Research Council, Water Science and Technology Board, Committee on Intrinsic Remediation (1997-2000)
- National Research Council, Member and Vice Chair, Water Science and Technology Board (1997-2001)
- Chair, Workshop on Chemical Processes that May Bind or Sequester Hydrophobic Organic Contaminants on Soils or Sediments, US Air Force Office of Scientific Research, Pittsburgh, PA (1996)
- International Association on Water Quality, USA National Committee (1996-1999)
- The Environmental City Task Force, Pittsburgh as an Environmental Research, Technology and Education Center Working Group (1995-1997)
- National Research Council, Water Science and Technology Board, Committee on Innovative Remediation Technologies, Washington, DC (1994-1997)
- Project Review Team, NAPL Contaminated Soil/ Groundwater Remediation Using Foams, Argonne National Laboratory, Argonne, IL (1995)
- Group Leader, Session on Soil, Workshop on Environmentally Acceptable Endpoints in Soil, Gas Research Institute, Arlington, VA, (1995)
- Chair, Pre-Conference Impacts Assessment Seminar, AEEP/NSF Research Opportunities Conference (1995)
- Panel for Review of Soil Quality Criteria, Bureau of Waste Management, Department of Environmental Resources, Commonwealth of Pennsylvania, Harrisburg, PA (1994-1996)
- National Institute of Environmental Health Sciences, Superfund Hazardous Substances Basic Research Program Panel, National Institutes of Health, Research Triangle Park, NC, (1994)
- Scientific Advisory Committee, Western Region Hazardous Substance Research Center, Department of Civil and Environmental Engineering, Stanford University (1994-1999)
- University of Arizona, Review Panel, Center for Toxicology, Hazardous Waste Research Projects, College of Pharmacy and Department of Hydrology, Tucson, Arizona (1994)
- Engineering Advisory Council, School of Engineering, Clarkson University, Potsdam, NY (1993-1996)
- US EPA, Environmental Research Laboratory, Athens, GA, Review Panel on Effects of Nonionic Surfactants on Microbial Anaerobic Dechlorination of Hazardous Organic Compounds (1993)
- Academic Research Infrastructure Program, National Science Foundation, Review Panel, Washington, DC (1993)
- US EPA Science Advisory Board, Environmental Engineering Committee, Subcommittee on Superfund Ground-Water Strategic Plan and Dense Non-Aqueous Phase Liquids (1992)
- Editorial Advisory Board, Environmental Science and Technology (1992-1994)
- Water Environment Federation, Research Foundation, Project Subcommittee on Dehalogenation of Organic Pollutants in Anaerobic Digestion (1992-1996)

- Science Advisory Committee, US EPA Great Plains and Rocky Mountains Hazardous Substance Research Center (1992-1994)
- Chairman, AEEP Committee on Future Concerns in Environmental Engineering Graduate Education (1991)
- US EPA Bioremediation Action Committee, Research and Education Subcommittee (1990-1992)
- US EPA Science Advisory Board, Environmental Engineering Committee, Toxic Treatability Subcommittee (1990)
- Conference Organizing Committee, 16th Biennial Conference, Washington, D.C., International Association on Water Pollution Research and Control (1990-1992)
- Water Environment Federation, Awards Committee (1989-1994)
- Groundwater Committee, Water Pollution Control Federation (1989-1991)
- Board of Editors, Research Journal Water Pollution Control Federation (1989-1992)
- US EPA, Environmental Research Laboratory, Athens, GA, Physicochemical Processes Research Review (1989)
- American Academy of Environmental Engineers, Engineering Education Committee (1988-1992)
- US EPA R.S. Kerr Environmental Research Laboratory, Ada, OK, Abiotic Processes Research Program Review (1989)
- US Department of Energy, Subsurface Science Program Review, Gaithersburg, MD (1989)
- National Research Council, U.S. Scientific Delegation on Clean and Efficient Utilization of Water in Iron and Steel Making, National Academy of Sciences, Beijing (1988)
- Visiting Committee, University of California, Berkeley, Environmental Engineering Program (1987)
- Research Symposia Subcommittee, Water Pollution Control Federation (1985-1987)
- Association of Environmental Engineering Professors: Distinguished Lecturer Committee (1982-1984), Chairman (1984-1985); Awards Committee (1983-1984; 1989-1991); Director (1985-1988), Vice President/President (1986-1988)
- Pesticide Manufacturing Waste Treatment and Effluent Standards, U.S. EPA, Science Advisory Board, Environmental Engineering Committee, Washington, D.C., (1983)
- Consultant, US EPA Science Advisory Board, Environmental Engineering Committee (1983-present)
- Director, Pittsburgh Section ASCE (1982-1984)
- Awards Committee, Water Pollution Control Federation (1981-1984)
- Hazardous Waste Management Committee, American Society of Civil Engineers (1979-1982)
- Technical Advisor, Allegheny County Health Department, Water Quality and Solid Waste Control (1977-1981)
- Reviewer various journals--Journal Water Pollution Control Federation/Water Environment Research --Environmental Science and Technology --Water Research --Journal of Environmental Engineering, etc.
- Joint Task Group Committee for Standard Methods: Oil and Grease, Cyanide (1975-present); Chairman, Joint Task Group on Cyanide (1985-1995)
- Faculty Advisor, Student Chapter ASCE, Carnegie Mellon University (1975-1979); ASCE Award for Outstanding Service (1978)

Funded Research:

- Geomedia to Sequester or Transform Contaminants from Urban Stormwater at Rory M. Shaw Wetlands Park, Los Angeles Department of Water & Power, Department of Public Works Bureau of Sanitation and the Los Angeles County Flood Control District, R. G. Luthy, PI, David L. Sedlak, Co-PI, $855,000, February 2015—January 2018.
- Enhanced Removal of Nutrients from Urban Runoff with Novel Unit-Process Capture, Treatment and Recharge Systems, Water Research Foundation (US EPA Nutrient Center), R. G. Luthy, PI, David L. Sedlak, Co-PI, $459,125, Nov. 1, 2016—Oct. 30, 2016
- US—UK Clean Water Collaboration Student Exchange Program, National Science Foundation, R. G. Luthy, PI, $50,000, 2014-2015 (Newcastle and Glasgow Universities)
- In-situ Remediation of Petroleum Hydrocarbons in Sediment: Advancing the State of the Art; Phase 2, Chevron Energy Technology Company, Richmond, CA, R.G. Luthy PI, O. Fringer, S. Monismith, Co-PI, $1,101,500,7/1/12-8/31/15.
- Trace Organics in Recycled Water: Analysis of Plant Uptake and Processing, Woods Institute for the Environment, Stanford University, E. S. Sattely, PI, R.G. Luthy, Co-PI $175,000 [7/1/12- 6/30/14].
- Engineering Research Center for Re-inventing America's Urban Water Infrastructure, National Science Foundation, R.G. Luthy, Director and PI, David L. Sedlak, Jörg E. Drewes, N. Khandan, Co-PIs, August 1, 2011 – July 31, 2016, $18.5 million. Renewed, August 1, 2014—July 31, 2019, R.G. Luthy, Director and PI, David L. Sedlak, John McCray, N. Khandan, Co-PIs, five year renewal, $20 million (including years 4&5).
- Environmental Remediation: Sediment Management and Restoration (Fate and Environmental Risk of DDT and Metabolites in Lake Maggiore, Italy), Eni, S.p.A., Italy, R.G. Luthy, PI, O. Fringer, S. Monismith Co-PI, $1,356,930, 2/1/2011-12/31/2015.
- Long-Term Risk Reduction from Activated Carbon Treatment of Sediment, US Dept. of Defense, Strategic Environmental Research and Development Program, R.G. Luthy, PI, $1,055,714, 9/28/10-9/30/15 (additional supplement, $126,000).
- Pilot-Scale Deployment of Activated Carbon at Castro Creek, Richmond, CA, Chevron Environmental Management Co., R.G. Luthy, $96,000, 9/1/2011- 5/31/2011.
- In-Situ Immobilization of Mercury from Sediment Using Reduced-Sulfur-Enriched Activated Carbon; National Institute of Health National Institute of Environmental Health Sciences, Superfund Research Program, R. G. Luthy, PI, $150,000 (7/1/2010 - 7/31/12).
- In-situ Remediation of Petroleum Hydrocarbons in Sediment: Advancing the State-of-the-Art, Chevron Energy Technology Company, Richmond, CA R.G. Luthy, PI, $499,000, 7/1/10-6/30/12.
- Evaluation of Amendment for In-situ Management of Sediment from a Chevron Site in Northern California, ChevronTexaco Corp., Chevron Energy, Technology Co., Richmond, CA, R. G. Luthy, PI, $271,280, 6/1/09- 9/30/10; $48,000 supplement, 10/1/10-12/31/10; Supplement $48,000 [10/1/10 – 12/31/10].
- Decision-making in Recycled Water Project Implementation: Symmetry in Scientific Knowledge and Political Economy, Woods Institute for the Environment, Stanford University, R.G. Luthy, PI $199,587, [7/1/08- 6/30/11].
- Activated Carbon as a Multifunctional Amendment to Treat Mercury and PCBs, National Institute of Health, National Institute of Environmental Health Sciences; R. G. Luthy, PI, S. Fendorf Co-PI, $920,172 [10/1/07 – 9/30/10].
- Measurement and Modeling of Ecosystem Risk and Recovery for In Situ Treatment of Contaminated Sediments, US Department of Defense, Strategic Environmental Research

and Development Program, R. G. Luthy, PI, S. N. Luoma and J. K. Thompson, Co-PIs, $1,474,000, 3/1/2007 – 2/28/2010.

- Biodynamic Modeling of Perfluorchemical Bioaccumulation to Assess the Use of Recycled Wastewater for Urban Stream Flow Augmentation and Habitat Restoration, UPS Foundation, $50,000, R.G. Luthy, M. Reinhard, D. Epel, Stanford University [2006-2008].
- Field Testing of Activated Carbon Mixing and In Situ Stabilization of PCBs In Sediment US, Dept. of Defense Environmental Security and Technology Certification Program, $1,006,000, R.G. Luthy, PI, T. Bridges, Co-PI, U. Ghosh, Co-PI (6/13/05-12/31/07).
- PAH Analyses in Lampblack-Impacted Sediments from Lake Union, Puget Sound Energy and ReTeC Group, $64,500, R. G. Luthy, PI (1/1/05-9/30/05).
- Smart Chemical Design: Integrating Functional Performance with Environment with Environmental Fate and Toxicity, $120,000, C.W. Frank, C.S. Criddle, R.G. Luthy, D. Epel, Woods Institute for the Environment, Stanford University [2004-2006].
- Preliminary Field Testing of Activated Carbon Mixing and In situ Stabilization of PCBs in Sediment, Southwest Division Naval Facilities Engineering Command, US Navy, San Diego, $104,000, R. G. Luthy, PI (7/1/04- 3/31/05).
- Analysis of Lampblack Samples, Gas Technology Institute, $12,000, R.G. Luthy, PI (4/1/03-09/30/03).
- Major Research Instrumentation Grant for Acquisition of Analytical Equipment for Interdisciplinary Research on Emerging Contaminants in Aquatic Environments National Science Foundation, $638,381, R.G. Luthy, PI, C. Criddle, Co-PI, D. Epel, Co-PI, M. Reinhard, Co-PI, S. Fendorf, Co-PI (8/1/02-7/31/05).
- Perfluorinated Organic Compound Biotransformation, Fate, and Availability in the Environment, National Science Foundation, $398,989, R.G. Luthy, PI, C. Criddle, Co-PI (7/15/02-6/30/05).
- Measurement of Site-Specific Partition Coefficients and Risk Assessment for PAHs at Alameda Point, Department of the Navy, $160,000, R. Luthy, PI, U. Ghosh, Co-PI (5/20/02-5/31/03).
- Nitromusk Compounds: Are They Bioavailable and Do They Compromise Toxin Defense Systems?, California Sea Grant Program, $397,221 D. Epel, PI, R. Luthy, Co-PI (3/1/02-2/28/05).
- "Microscale Characterization of the Binding and Sequestration of Nitroaromatics in Soils." US Army Engineer Research and Development Center, $100,000, R.G. Luthy, PI, U. Ghosh Co-PI (2001-2002).
- "In Situ Stabilization of Persistent Organic Contaminants in Marine Sediments," US Dept. of Defense, Strategic Environmental Research and Development Program, $1,500,000, R.G. Luthy, PI, R.N. Zare, U. Ghosh, J.W. Talley, Todd S. Bridges, Co-PIs, (2001-2004).
- "Contaminated Sediment Processes and Bioavailability," Stanford University Bio-X Interdisciplinary Initiative Program, $166,000, R.G. Luthy, PI, SG. Monismith, D. Epel, and R.N. Zare Co-PIs (2001-2003).....
- "Geochemistry of PCBs in Sediments." Ford Fund, Ford Motor Company, $245,000, R.G. Luthy, PI (2000-2003).
- "Characterization of Lampblack Materials in Soils," Gas Technology Institute ($125,000), R.G. Luthy, PI (2000-2002).

- "Biostabilization of Polycyclic Aromatic Hydrocarbons Under Denitrification Conditions in Sediments," US Army Research Office ($100,000), Gas Research Institute ($100,000), and R.G. Luthy and R.N. Zare (1998-1999).
- "Assessment and Prediction of Biostabilization of Polycyclic Aromatic Hydrocarbons (PAHs) in Sediments," US Dept. of Defense, Strategic Environmental Research and Development Program, $1,500,000, J.W. Talley, R.G. Luthy, R.N. Zare and H. Pritchard, Co-PIs (1997-2000).
- "Subsurface Fate and Transport of Cyanide at MGP Sites," Electric Power Research Institute, Palo Alto, CA, and Wisconsin Power and Light Company, Madison, WI, $59,430 (continuation funding), D.A. Dzombak and R.G. Luthy, Principal Investigators (1995-1999).
- "Cyanide Formation and Fate in Complex Effluents and Its Relation to Water Quality Criteria," Water Environment Research Foundation, Electric Power Research Institute, and Gas Research Institute, $210,000, D.A. Dzombak and R.G. Luthy, Principal Investigators (1998-2001). Other collaborators with separate funding: Malcolm-Pirnie, Oakland, CA, and Clarkson University.
- "Characterization of the Distribution and Assessment of the Bioavailability of Hydrophobic Organic Contaminants on Geosorbents." US Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS, $166,000, R.G. Luthy, Principal Investigator (1997-2000).
- "Bioavailability and Biostabilization of PCBs in Soil," DOE/EPA/NSF/ONR Joint Program on Bioremediation, US Environmental Protection Agency, Office of Research and Development, Washington, DC, $524,000, R.G. Luthy, Principal Investigator (1997-2001).
- "Chemical Processes that Affect the Persistence and Release of Hydrophobic Organic Contaminants in Soils or Sediments," Gas Research Institute, Chicago, IL, and Remediation Technologies, Inc., for support of sabbatical leave to Stanford University, $40,000, R.G. Luthy, Principal Investigator (1996-1997).
- "Focused Workshop on Chemical Processes that May Bind or Sequester Organic Contaminants in Soils or Sediment," Air Force Office of Scientific Research, Directorate of Chemistry and Life Sciences, Bolling Air Force Base, DC, $19,400, R.G. Luthy, Principal Investigator (1996-1997).
- "Evaluation of Physical-Chemical Mechanisms Controlling PCB Release from Contaminated River Sediment," Aluminum Company of America, Alcoa Technical Center, Alcoa Center, PA, $101,678, D. A. Dzombak and R. G. Luthy, Co-Principal Investigators (1995-1996).
- "Treatment of Cyanide-Contaminated Water via Iron-Cyanide Precipitation," Aluminum Company of America, Alcoa Technical Center, Alcoa Center, PA, $150,000, D. A. Dzombak and R. G. Luthy, Co-Principal Investigators (1995-1997).
- "Subsurface Fate and Transport of Cyanide at Manufactured Gas Plant Sites", Electric Power Research Institute, Palo Alto, CA, $270,000, D. A. Dzombak, R. G. Luthy and D. V. Nakles, Co-Principal Investigators (1995-1997).
- "Laboratory Investigations of Leaching of PCB Congeners from Contaminated Sludges and Soils," Aluminum Company of America, Alcoa Technical Center, Alcoa Center, PA, $193,900, D.A. Dzombak and R.G. Luthy, Co-Principal Investigators (1994-1995).
- "Laboratory Investigations of Leaching of PCB Congeners from Contaminated Sludges and Soils," Aluminum Company of America, Alcoa Technical Center, Alcoa Center, PA, $88,900, D.A. Dzombak and R.G. Luthy, Co-Principal Investigators (1994).

- "Support for the 1994 Gordon Research Conference on Environmental Sciences: Water," US EPA, Athens Environmental Research Laboratory, Athens, GA, $15,790; US Air Force, Environmental Research Division, Tyndall Air Force Base, Panama City, FL, $15,000; R.G. Luthy, Principal Investigator (1994).
- "Modeling of Transport of PCB Congeners in Porous Media", Aluminum Company of America, Alcoa Technical Center, Alcoa Center, PA, $29,900, D.A. Dzombak and R.G. Luthy, Co-Principal Investigators (1993).
- "Product Design for the Environment", IBM Corporation, Environmental Research Program, Stamford, CT, $1,920,000, R.G. Luthy, Principal Investigator, 15 Co-PIs (1993-1997).
- "Renovation of the Environmental Engineering Laboratories at Carnegie Mellon University", National Science Foundation, Academic Research Infrastructure Program, $429,800, R.G. Luthy, C.I. Davidson and D.A. Dzombak, Co-Principal Investigators (1993-1995).
- "Surfactant-aided Pump-and-Treat Remediation of Dense Non-aqueous Phase Liquids", US Environmental Protection Agency, Office of Exploratory Research, Washington, DC, $319,000, R.G. Luthy and D.A. Dzombak, Co-Principal Investigators (1992-1995).
- "Graduate Fellowship in Bioremediation and Cleanup of Soil or Aquifer Media Contaminated by Coal Tar", Baltimore Gas and Electric Co., $186,000, R.G. Luthy, Principal Investigator (1992-1995).
- "Process Evaluation of Landfill Leachate Treatment by Evaporation", Chambers Development Corporation, Pittsburgh, PA, $100,000, R.G. Luthy and F.C. McMichael, Co-Principal Investigators (1992-1993).
- "Solubilization of Polycyclic Aromatic Hydrocarbon Contaminants in Soil-Water Systems Using Surface Active Agents", U.S. Environmental Protection Agency, Office of Exploratory Research, Washington, D.C., $208,700, R.G. Luthy, Principal Investigator, A.M. Jacobson, Co-Principal Investigator (1991-1993).
- "Graduate Student Fellowship for Research on Bioremediation", Environmental Technology Applications, subsidiary of Beazer PLC, Monroeville, PA, $16,000, R.G. Luthy, Principal Investigator (1991-1992).
- "Biodegradation of PAH Compounds in Porous Media", Texaco Inc., Research and Development, Beacon, NY, Graduate Fellowship, $60,000, R.G. Luthy, Principal Investigator (1991-1993).
- "In Situ Solvent Extraction for Remediation of Coal Tar Sites", U.S. Geological Survey, Reston, VA, $61,000, D.A. Dzombak and R.G. Luthy, Co-Principal Investigators (1990-1991).
- "Center for Solid Waste Management", Ben Franklin Technology Center, Pittsburgh, PA, $20,000, F.C. McMichael and R.G. Luthy, Co-Principal Investigators (1990-1991).
- "Distillation of Landfill Leachate", Chambers Development Corporation, Pittsburgh, PA, $103,400, R.G. Luthy, Principal Investigator (1990-1991).
- "Microbial Mineralization of Coal-Derived Hydrophobic Organic Contaminants", U.S. Department of Energy, Advanced Coal Research at U.S. Colleges and Universities, Pittsburgh Energy Technology Center, Pittsburgh, PA, $210,000, R.G. Luthy, Principal Investigator (1990-1993).
- "Microbial Denitrification and Degradation of Hydrophobic Aromatic Hydrocarbon Compounds in Soil-Water Systems", U.S. Environmental Protection Agency, Office of Exploratory Research, Washington, D.C., $209,500, R.G. Luthy, Principal Investigator (1989-1991).

- "In Situ Solvent Extraction for Remediation of Coal Tar Sites", Electric Power Research Institute, Palo Alto, CA, $315,000, R.G. Luthy, Principal Investigator, David A. Dzombak, Co-Investigator (1989-1992).
- "Enhanced Bio-Remediation of Hydrophobic Organic Contaminants in Soil-Water Systems Through Addition of Solubilizing Agents", U.S. Environmental Protection Agency, Office of Exploratory Research, Washington, DC, $181,000, R.G. Luthy, Principal Investigator (1988-1990).
- "Conference on Fundamental Research Directions in Environmental Engineering", National Science Foundation, $44,400; U.S. Environmental Protection Agency, $10,000, R.G. Luthy, Principal Investigator, C.R. O'Melia and J.J. Morgan, Co-Principal Investigators (1988-1989).
- "Chemical Degradation of Substituted Aromatic Hydrocarbons in Soil/Sediment Systems," Advanced Coal Research at US Colleges and Universities, US Department of Energy, Pittsburgh Energy Technology Center, Pittsburgh, PA, $141,000, R.G. Luthy Principal Investigator (1986-1988).
- "Prediction of Solute Solubility in Solvent/Water Mixtures", U.S. Environmental Protection Agency, Robert S. Kerr Environmental Research Laboratory, Ada, OK, $84,500, R.G. Luthy, Principal Investigator (1985-1986).
- "Adsorption and Degradation of PAH Compounds in Soil," U.S. Department of Energy, Grand Forks Project Office, Grand Forks, ND, $320,000, R.G. Luthy, Principal Investigator (1984-1987).
- "Engineering Chemistry and Biochemistry of Hydantoins," Advanced Coal Research at U.S. Colleges and Universities, U.S. Department of Energy, Pittsburgh Energy Technology Center, Pittsburgh, PA, $142,000, R.G. Luthy, Principal Investigator (1984-1986).
- "The Effect of Electrical Gradients on Movement of Organic Chemical Pollutants in Saturated Flow Through Soil," Office of Toxic and Hazardous Waste Management, Pennsylvania State University, University Park, PA, $15,000, R.G. Luthy and F.C. McMichael, Co-Principal Investigators, (1983-1984).
- "Pollutant Sorption to Soils/Sediments in Organic/Aqueous Solvent Systems," U.S. Environmental Protection Agency, Environmental Research Laboratory, Athens, GA, $60,000, R.G. Luthy, Principal Investigator (1983-1984).
- "Cooling Tower Simulation with Wastewater", U.S. Department of Energy, $100,400, R.G. Luthy, Principal Investigator, (1982-1983).
- "Investigation of Limiting Engineering and Chemical Factors for Recycle and Reuse of Blast Furnace Scrubber Waters Under the Clean Water Act and RCRA," U.S. Environmental Protection Agency, Washington, D.C., $172,000, R.G. Luthy and F.C. McMichael, Principal Investigators (1981-1983).
- "Ion Chromatography for Analysis of Environmental Samples," National Science Foundation, $13,400 Equipment Grant, C.I. Davidson and R.G. Luthy, Principal Investigators (1981-1982).
- "Studies for Removal of Organic Constituents in Process Wastewater From Modified In-Situ Oil Shale Retort," Argonne National Laboratory, Argonne, IL, $35,000, R.G. Luthy, Principal Investigator (1981).
- "Treatment of Slagging Fixed-Bed Gasification Process Wastewater: Disposition of Trace Organic Compounds," Grand Forks Energy Technology Center (US DOE), $188,500, R.G. Luthy, Principal Investigator (1981-1982).

- "Water Management and Wastewater Reuse in Coal Conversion Facilities," U.S. Department of Energy, Pittsburgh Energy Technology Center, $138,700, R.G. Luthy, Principal Investigator (1980-1983).
- "Physicochemical Adsorption Phenomena of Polycyclic Aromatic Hydrocarbons in Coal Conversion Wastewaters," U.S. Department of Energy, $101,600, R.G. Luthy, Principal Investigator (1980-1982).
- "Removal of Organic Constituents from Gasification Wastewater by Solvent Extraction and Powdered Activated Carbon/Activated Sludge Treatment," Argonne National Laboratory, Argonne, IL; $44,000, R.G. Luthy, Principal Investigator (1980).
- "Treatment of Slagging Fixed-Bed Gasification Process Wastewater," Grand Forks Energy Technology Center, Grand Forks, ND; $65,400; R.G. Luthy, Principal Investigator (1979-1980"Removal of Polycyclic Aromatic Compounds in Coke Plant Wastewater," MPC Corporation, Pittsburgh, Pennsylvania; $44,000; R.G. Luthy, Principal Investigator (1979-1980).
- "Development of Procedures for Evaluating Wastewater Emulsified Oil Separation," Lancy Division of Dart Environment and Services Co., $23,000; R.G. Luthy, Principal Investigator (1979-1980).
- "Evaluation of Treatment Technologies for Water Reuse in Coal Coking and Coal Gasification," U.S. Department of the Interior, Office of Water Research and Technology, $58,580; R.G. Luthy, Principal Investigator (1978-1979).
- "Environmental Assessment in the DOE Coal Gasification Development Program," U.S. Department of Energy, $359,000; M.J. Massey and R.W. Dunlap, Principal Investigators; R.G. Luthy, F.C. McMichael and E.S. Rubin, Co-Investigators (1976-1978). J.P. Fillo, R.G. Luthy, M.J. Massey, Principal Investigators, $380,000 (1978-1979).
- "Biological Oxidation of High Strength Coal Refinery Wastewaters," National Science Foundation, $19,900; R.G. Luthy, Principal Investigator (1977-1978).

Journal Papers, Book Chapters and Discussions Critically Reviewed Before Publication:

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Improvement of Urban Lake Water Quality by Removal of Escherichia Coli Through the Action of the Bivalve *Anodonta Californiensis* By: Ismail, Niveen S.; Dodd, Hanna; Sassoubre, Lauren M.; Horne, Alexander J.; Boehm, Alexandria B.; Luthy, Richard G. ENVIRONMENTAL SCIENCE & TECHNOLOGY Volume: 49 Issue: 3 Pages: 1664-1672 Published online: Jan 14 2015 DOI: 10.1021/es5033212

In situ sediment treatment using activated carbon: A demonstrated sediment cleanup technology (Critical Review) By: Patmont, Clayton R.; Ghosh, Upal; LaRosa, Paul; Menzie, Charles A.; Luthy, Richard G.; et al. Integrated Environmental Assessment and Management, Published online: Jan 6 2015 DOI: 10.1002/ieam.1589

Engagement at the Science-Policy Interface By: Hering, Janet G.; Dzombak, David A.; Green, Sarah A.; Luthy, Richard G., ENVIRONMENTAL SCIENCE & TECHNOLOGY Volume: 48 Issue: 19 Pages: 11031-11033 Published: OCT 7 2014 DOI: 10.1021/es504225t

Uptake of Contaminants of Emerging Concern by the Bivalves *Anodonta californiensis* and *Corbicula fluminea* By: Ismail, Niveen S.; Mueller, Claudia E.; Morgan, Rachel R.; et al. ENVIRONMENTAL SCIENCE & TECHNOLOGY Volume: 48 Issue: 16 Pages: 9211-9219 Published: AUG 19 2014 DOI: 10.1021/es5011576

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Measurement and modeling of activated carbon performance for the sequestration of parent- and alkylated-polycyclic aromatic hydrocarbons in petroleum-impacted sediments; Choi, Yongju; Cho, Yeo-Myoung; Gala, William R; Luthy, R. G.; Environmental Science & Technology, Vol. 47 (2), pp 1024-1032, DOI 10.1021/es303770c, Published Jan 15, 2013

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Assessment of Nontoxic, Secondary Effects of Sorbent Amendment to Sediments on the Deposit-Feeding Organism Neanthes arenaceodentata: Janssen Elisabeth M. -L.; Choi Yongju; Luthy Richard G., Environmental Science & Technology, Volume: 46 (7), pg 4134-4141, DOI: 10.1021/es204066g Published: APR 3 2012

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