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Senior Research Engineer
School of Engineering & Doerr School of Sustainability
Stanford University

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Education

Doctor of Philosophy, Environmental Engineering and Science, Department of Civil and Environmental Engineering,
Stanford University, Stanford, CA, USA
Thesis: *Field Application of Activated Carbon Amendment for In-situ Stabilization of Polychlorinated Biphenyls in Marine Sediment*
Advisor: Richard G. Luthy June 2009

Master of Science, Environmental Engineering and Science, Department of Civil and Environmental Engineering,
Stanford University, Stanford, CA, USA
Advisor: Richard G. Luthy June 2005

Master of Science, Organic Chemistry, Department of Chemistry, Seoul National University, Seoul, Korea
Thesis: *Cleavage of Avidin with Cyclen-Containing Biotin Derivatives*
Advisor: Junghun Suh February 2002

Bachelor of Science, Chemistry, Seoul National University, Seoul, Korea
Graduated Cum Laude February 2000

Seoul Science High School, Seoul, Korea February 1996

Research Experiences

Researcher: Evaluation of Impact of Aging on DDT Bioavailability using Passive Sampler Technique and Microcosm Bioassay, *DDT Bioavailability Assessment of Aged Soil Bioavailability at Montrose Superfund Site*, Montrose Chemical Corporation of California, USA 2022-present

Researcher and Project Manager: Development of an Enhanced Treatment System using Various Types of Geomedia for Stormwater Impacted by Organic and Inorganic Contaminants, *Prevention of Sediment Recontamination by Improved BMPs to Remove Organic and Metal Contaminants from Stormwater Runoff*, Strategic Environmental Research and Development Program Project ER18-1145, US Department of Defense (DoD), USA 2018-2023

Researcher: Modeling and Experimental Evaluation of Long-term Performance of AC Amendment, *Activated Carbon Treatability Study for the United Heckathorn Superfund Site*, Montrose Chemical Corporation of California, USA 2016-present

Researcher: Evaluation of Passive Sampling Technique for Food Chain PCB Uptake Modeling, *PCB Monitoring in San Francisco Bay PMUs using Passive Sampling Techniques*, collaboration with San Francisco Estuary Institute, USA 2016-2024

Researcher: Investigation of Concurrently Occurred Biological Attenuation Processes and Engineered Remedial Actions of Heteroatomic PAHs, *Fungal Degradation of Fluorene and its Heteroatomic Analogs: Dibenzofuran, Dibenzothiophene, and Carbazole* 2015-2024

Researcher and Project Manager: Contaminant Mass Transfer Modeling with Consideration of Dynamic Field Conditions, Bioturbation Modeling, Community-level Bioturbation Parameterization, Development of a Nobel Sediment Desorption Kinetic Experiment using Polyethylene Sampler, *In-situ Remediation of Petroleum Hydrocarbon*

Impacted Sediments: Advancing the State-of-the-Art, Phase III, Chevron Energy Technology Company, USA
2016-2018

Researcher: Assessment of Plant Uptake of Emerging Contaminant and Nutrient for Potential Use of Phytoremediation for Stormwater Treatment, *Responses of Aquatic and Wetland Plants to Benzotriazole and Nitrate in Stormwater*, Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt), Stanford
2015-2018

Researcher: LCA study on Remedial Options for Contaminated Sediment, *Secondary environmental impacts of remedial alternatives for sediment contaminated with hydrophobic organic contaminants*, Sustainable Remediation Forum (SURF) Stanford Student Chapter
2012-2014

Researcher: Assessment of Natural Attenuation Process and Evaluation of Impact of Bioturbation, Bioturbation Process Modeling, *Environmental Remediation: Sediment Management and Restoration*, Eni S.p.A., Italy
2011-2016

Researcher and Project Manager: Analytical Method Development for Alkylated PAHs, Mass Transfer Modeling, Sediment Column Study of In-situ AC Amendment, *In-situ Remediation of Petroleum Hydrocarbon Impacted Sediments: Advancing the State-of-the-Art, Phases I and II*, Chevron Energy Technology Company, USA
2010-2015

Researcher and Project Manager: Mass Transfer Modeling, Assessment of Long-term Effectiveness of AC Amendment, *Long-term Risk Reduction from Activated Carbon Treatment of Sediment*, Strategic Environmental Research and Development Program Project ER-1552 Add-on, US Department of Defense (DoD), USA
2009-2016

Research Assistant: Inverse Modeling of Heat Transfer, *Measurement and Modeling of Ecosystem Risk and Recovery for In-situ Treatment of Contaminated Sediments*, Strategic Environmental Research and Development Program Project ER-1552, US DoD, USA
2007-2009

Research Assistant, Project Manager, and Project Quality Assurance Manager: Validation of Benefits and Minimal Adverse Impacts by In-situ AC Amendment in Field, *Field Testing of Activated Carbon Mixing and In-situ Stabilization of PCBs in Sediment at Hunters Point Shipyard Parcel F San Francisco Bay, California*, Environmental Security Technology Certification Program Project ER-0510, US DoD, USA
2005-2008

Research Assistant: Field Monitoring Tool Development, Validation of Concept & Feasibility, *Hunters Point Shipyard Parcel F Treatability Study*, Naval Facilities Engineering Command Project, US Navy, USA
2004-2005

Research Assistant: Synthesis of Artificial Protease, *Investigation and Application of Molecular Recognition Based on Model Compounds*, Brain Korea 21 Project, Korea
2000-2002

Teaching Experiences

Adjunct Faculty of ENV5100 *Understanding our Environment, Environmental Science and Environmental Studies*, University of San Francisco, San Francisco, CA, USA
Fall 2022

Guest Lecturer of CHEM151 *General Chemistry for Engineers and Scientists, Department of Chemistry II*, University of San Francisco, San Francisco, CA, USA
Spring 2022, Spring 2023

Adjunct Faculty of CHEM150 *General Chemistry for Engineers and Scientists, Department of Chemistry*, University of San Francisco, San Francisco, CA, USA
Fall 2021, Fall 2022

Lecturer of *Stanford Environmental & Water Studies Summer Program: New Ideas from the Inside*
Jan-Feb 2021

Lecturer & Course Developer of CEE 170s/270s *Environmental Disasters*, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA, USA
Summer 2018

Lecturer & Course Developer of CEE 273s *Chemical Transformation of Environmental Organic Contaminants*, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA, USA
Spring 2011

Guest Lecturer of CEE 276e *Environmental Toxicants*, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA, USA Spring 2008

Teaching Assistant of CEE 270 *Movement, Fate, and Effects of Contaminants in Surface Waters and Groundwater*, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA, USA Fall 2004

Full-Time Teaching Assistant of Department of Chemistry, Seoul National University, Seoul, Korea 2002-2003

Teaching Assistant of *Chemistry Laboratory*, Seoul National University, Seoul, Korea Spring 2001

Teaching Assistant of *Summer School for International Chemistry Olympiad*, The Korean Chemical Society, Seoul, Korea Summer 2000

Administrative Experiences

Financial Associate, *Overseeing financial activities of a four-institution research center, preparing budget and funding projections, collecting financial information from participating projects and organizations, preparing annual financial reports to NSF. Developing and managing center's data management system (Zoho DB, bibliography), NSF Engineering Research Center for Re-inventing the Nation's Urban Water Infrastructure (ReNUWIt), Stanford* 2014-2022

Honors, Awards, and Recognition

Staff Service Award, School of Engineering, Stanford University, CA, USA Mar 2019

Certificate of Appreciation from American Chemical Society Publications in recognition of contribution and dedicated service in the peer review, 2012 and 2013

Stanford Graduate Fellowship in Science and Engineering, Gabilan Fellowships, Stanford University, CA, USA 2005-2008

Award of Excellence Environmental Chemistry Division, American Chemical Society, USA Sep 2005

Graduate Study Abroad Scholarship Korea Science and Engineering Foundation, Korea 2003-2005

Brain Korea 21 Fellowship Brain Korea 21 Project, Korea 2000-2002

Appreciation Plaque, dedicated service for ChemWorld Periodical, The Korean Chemical Society, Korea 2001

Seoul National University Honor Scholarship (partial & full tuition) Seoul National University, Korea 1996-2000

Publications

Sim, W.S.; Song, S. W.; Park, S.; Jang, J. I.; Kim, J. H.; Cho, Y.-M.; Kim, H. M., Unveiling Microplastics with Hyperspectral Raman Imaging: From Macroscale Observations to Real-world Applications. *Journal of Hazardous Materials*, **2024**, 463(5), doi: 10.1016/j.jhazmat.2023.132861

Pritchard, J. C.; Cho, Y.-M.; Hawkins, K. M.; Spahr, S.; Higgins, C. P.; Luthy, R. G., Predicting PFAS and Hydrophilic Trace Organic Contaminants Transport in Black Carbon-Amended Engineered Media Filters for Improved Stormwater Runoff Treatment. *Environmental Science & Technology*, **2023**, 57(38), 14417–14428 doi:10.1021/acs.est.3c01260

Pritchard, J. C.; Hawkins, K. M.; Cho, Y.-M.; Spahr, S.; Struck, S. D.; Higgins, C. P.; Luthy, R. G., Black Carbon-Amended Engineered Media Filters for Improved Treatment of Stormwater Runoff. *ACS Environ. Au*, **2023**, 3(1), 34-46. doi: 10.1021/acsenvironau.2c00037

Brandon, A. M.; Abbadi, S.H.E.; Ibekwe, U. A.; Cho, Y.-M.; Wu, W.; Criddle, C. S., Fate of Hexabromocyclododecane (HBCD), A Common Flame Retardant, In Polystyrene-Degrading Mealworms: Elevated HBCD Levels in Egested

Polymer but No Bioaccumulation. *Environmental Science & Technology*, **2020**, 54(1), 364-371. doi: 10.1021/acs.est.9b06501

Wolfand, J. M.; Seller, C.; Bell, C. D.; Cho, Y.-M.; Oetijen, K.; Hogue, T. S.; Luthy, R. G., Occurrence of Urban-Use Pesticides and Management with Enhanced Stormwater Control Measures at the Watershed Scale. *Environmental Science & Technology Letters*, **2019**, 53(7), 3634-3644.

Pritchard, J. C.; Cho, Y.-M.; Ashoori, N.; Wolfand, J. M.; Sutton, J. D.; Carolan, M. E.; . . . Luthy, R. G., Benzotriazole Uptake and Removal in Vegetated Biofilter Mesocosms Planted with *Carex praegracilis*. *Water*, **2018**, 10(11). doi:10.3390/w10111605

Lin, D.; Cho, Y.-M.; Tommerdahl, J.; Werner, D.; Luthy, R. G., Bioturbation Facilitates DDT Sequestration by Activated Carbon against Deposition of Contaminated Sediment, *Environmental Toxicology and Chemistry*, **2018**, 27(7), 2013-2021

Wu, Y.; Cho, Y.-M.; Luthy, R.G.; Kim, K.; Jung, J.; Gala, W.R.; Choi, Y., Assessment of hydrophobic organic contaminant availability in sediments after sorbent amendment and its complete removal. *Environmental Pollution*. **2017**, 231, 1380-1387.

Lin, D.; Cho, Y.-M.; Oen, A.; Eek, E.; Tommerdahl, J.; Luthy, R. G., Assessment of Natural Recovery from DDT-Contaminated Sediment in Pallanza Bay, Lake Maggiore, Italy. *Water Research*, **2017**, 121, 109-119.

Choi, Y.; Cho, Y.-M.; Gala, W. R.; Hoelen, T. P.; Luthy, R. G., Decision-making framework for the application of in-situ activated carbon amendment to sediment. *Journal of Hazardous Material*, **2015**, 306, 184-192.

Choi, Y.; Thompson, J.M.; Lin, D.; Cho, Y.-M.; Ismail, N.S.; Hsieh, C.-H.; Luthy, R.G., Secondary environmental impacts of remedial alternatives for sediment contaminated with hydrophobic organic contaminants. *Journal of Hazardous Materials*, **2015**, 304, 352-359.

Lin, D.; Eek, E.; Oen, A.; Cho, Y.-M.; Cornelissen, G.; Tommerdahl, J.; Luthy, R. G., Novel Probe for In Situ Measurement of Freely Dissolved Aqueous Concentration Profiles of HOCs at the Sediment-Water Interface. *Environmental Science & Technology Letters*, **2015**, 2 (11), 320-324.

Choi, Y.; Cho, Y.-M.; Predicted effectiveness of in-situ activated carbon amendment for field sediment sites with variable site- and compound-specific characteristics *Journal of Hazardous Materials*, **2015**, 301, 424-432.

Cho, Y.-M.; Werner, D.; Janssen, E. M.-L.; Luthy, R. G., *In-situ* treatment for control of hydrophobic organic contaminants using sorbent amendment, Chapter 11 in *Process, Assessment and Remediation of Contaminated Sediment*, SERDP ESTCP Remediation Technology, Vol.6, SERDP ESTCP, **2014**

Choi, Y.; Cho, Y.-M.; Luthy, R. G., In-Situ Sequestration of Hydrophobic Organic Contaminants in Sediments under Stagnant Contact with Activated Carbon: 2. Mass Transfer Modeling. *Environ. Sci. Technol.*, **2014**, 48(3), 1843-1850.

Choi, Y.; Cho, Y.-M.; Luthy, R. G., In-Situ Sequestration of Hydrophobic Organic Contaminants in Sediments under Stagnant Contact with Activated Carbon: 1. Column Studies. *Environ. Sci. Technol.*, **2014**, 48(3), 1835-1842.

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. *Environ. Sci. Technol.*, **2014**, 48(2), 1175-1183.

Choi, Y.; Cho, Y.-M.; Luthy, R. G., Polyethylene-water partitioning coefficients for parent- and alkylated-polycyclic aromatic hydrocarbons and polychlorinated biphenyls. *Environ. Sci. Technol.*, **2013**, 47(13), 6943-6950.

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 in Petroleum-Impacted Sediments. *Environ. Sci. Technol.*, **2013**, 47 (2), 1024-1032.

Cho, Y.-M.; Werner, D.; Choi, Y.; Luthy, R. G., Long-term Monitoring and Modeling of the Mass Transfer of Polychlorinated Biphenyls in Sediment Following Pilot-Scale after Field Application of Activated Carbon Amendment in Marine Sediment. *Journal of Contaminant Hydrology*, **2012**, 129130(15), 25-37.

Cho, Y.-M.; Werner, D.; Moffett, K. B.; Luthy, R. G., Assessment of Advective Porewater Movement Affecting Mass Transfer of Hydrophobic Organic Contaminants in Marine Intertidal Sediment. *Environ. Sci. Technol.* **2010**, 44 (15), 5842-5848.

Cho, Y.-M.; Ghosh, U.; Kennedy, A. J.; Grossman, A.; Ray, G.; Tomaszewski, J. E.; Smithenry, D. W.; Bridges, T. S.; Luthy, R. G., Field Application of Activated Carbon Amendment for *In-situ* Stabilization of Polychlorinated Biphenyls in Marine Sediment. *Environ. Sci. Technol.* **2009**, 43 (10), 3815-3823. (cited 240 times as of Nov 11 2022)

Cho, Y.-M.; Smithenry, D. W.; Ghosh, U.; Kennedy, A. J.; Millward, R. N.; Bridges, T. S.; Luthy, R. G., Field Methods for Amending Marine Sediment with Activated Carbon and Assessing Treatment Effectiveness. *Marine Environmental Research* **2007**, 64, 541-555. (cited 157 times as of Nov 11 2022)

Tomaszewski, J. E.; Smithenry, D. W.; Cho, Y.-M.; Luthy, R. G.; and Lowry G. V, et al., Treatment and Containment of Contaminated Sediments, Chapter 3 in *Assessment and Remediation of Contaminated Sediments*, NATO Science Series, Volume 73, Springer-Verlag, Dordrecht, Netherlands, **2006**.

Presentations

Cho, Y.-M.; Luthy, R.G., Feasibility demonstration of activated carbon remediation technology for in-situ stabilization of DDT at the United Heckathorn Superfund site, The American Chemical Society Fall 2023, San Francisco, CA, Aug **2023**.

Cho, Y.-M.; Pritchard, J.C.; Whelan, M.; Patmont, C.; Luthy, R.G., Assessment of In-situ Treatment of Multicomponent Contaminated Sediment using Activated Carbon under Differing Levels of Contamination and Disturbance: Preliminary Results and Pilot Study Design, The SETAC North America 39th Annual Meeting, Sacramento, CA, Nov **2018**.

Cho, Y.-M.; Zhang, Z.; Wolfand, J.; Choi, Y.; Luthy, R.G., Additive remediation effectiveness of activated carbon amendment on fungal degradation of fluorene and its heteroatomic analogs: Dibenzofuran, dibenzothiophene, and carbazole, The American Chemical Society 256th National Meeting, Boston, MA, Aug **2018**.

Cho, Y.-M.; Werner, D.; Choi, Y.; Luthy, R.G., HOC mass transfer modeling with consideration of bioturbation and on-going sediment influx, The American Chemical Society 256th National Meeting, Boston, MA, Aug **2018**.

Pritchard, J.C.; Cho, Y.-M.; Ashoori, N.; Luthy, R.G., Benzotriazole removal mechanisms in biofilters planted with *Carex praegracilis*, The American Chemical Society 256th National Meeting, Boston, MA, Aug **2018**.

Pritchard, C.; Cho, Y.-M, R Luthy, Activated carbon amendment for treatment of sediment contaminated with DDT and other hydrophobic organic pollutants concentrated 10-100x more than prior studies, The American Chemical Society 256th National Meeting, Boston, MA, Aug **2018**.

Cho, Y.-M.; Luthy, R.G., Semi-Quantitative Evaluation of Effects of Benthic Community-Level Bioturbation on Contaminant Availability: San Francisco Bay Case Study, 27th NorCal SETAC at Sacramento, CA, May **2017**.

Cho, Y.-M.; Werner, D.; Luthy, R.G., HOC Mass Transfer Modeling with Consideration of Bioturbation and On-going Sediment Influx, 27th NorCal SETAC at Sacramento, CA, May **2017**.

Cho, Y.-M.; Luthy, R.G., In-situ Activated Carbon Amendment Technology for Sediment Remediation: Status Update and Sustainability Aspects, SURF 30 at Rice University, Huston, TX, Oct 6 **2015** [invited].

Lin, D.; Cho, Y.-M.; Oen, A.; Eek, E.; Luthy, R.G., Field Assessment of Natural Attenuation from DDT in Pallanza Bay, Lake Maggiore, ContaSed 2015 at Ascona, Switzerland, March 11 **2015**.

Choi, Y.; Cho, Y.-M.; Luthy, R. G., Contaminant Mass Transfer Model to Assess the Effectiveness of In-situ Activated Carbon Treatment in Sediments, SETAC North America 34th Annual Meeting, Nashville, TN, **2013**.

Lin, D.; Cho, Y.-M.; Luthy, R. G.; Eek, E.; Oen, A., Assessing Recovery from DDT-Contaminated Sediment in Freshwater Lake in Europe, SETAC North America 34th Annual Meeting, Nashville, TN, **2013**.

Lin, D.; Cho, Y.-M.; Werner, D.; Luthy, R. G., Bioturbation affects on natural attenuation and in-situ remediation with thin layer AC application, SETAC Europe 23rd Annual Meeting, Glasgow, UK, May 12-16 **2013**.

Choi, Y.; Cho, Y.-M.; Luthy, R. G., Effect of Activated Carbon Amendment for the Treatment of Parent- and Alkylated- Polycyclic Aromatic Hydrocarbons in a Petroleum-Impacted Sediment under Stagnant Conditions, SETAC North America 33rd Annual Meeting, Long Beach, CA, **2012**.

Oen, A.; Beckingham, B.; Cho, Y.-M.; Werner, D.; Cornelissen, G.; Ghosh, U.; Luthy, R.G., The Influence of Field Aging of Activated Carbon in Sediment on PCB Sorption in Field Trials, SETAC Europe 22nd Annual Meeting, Berlin, Germany, **2012**.

Cho, Y.-M.; Choi, Y.; Werner, D.; Luthy, R. G., Hunters Point seven-year narrative: In-situ sequestration of HOCs in sediment by activated carbon sorbent amendment. Oral presentation, 243th American Chemical Society (ACS) National Meeting, San Diego, CA, **2012**.

Choi, Y.; Cho, Y.-M.; Janssen, E. M.-L.; Werner, D.; Luthy, R. G., Long Term Risk Reduction from Activated Carbon Treatment of Sediment, Partners in Environmental Technology Technical Symposium & Workshop, Washington D.C., **2011**.

Choi, Y.; Cho, Y.-M.; Luthy, R. G., Assessing Bioavailability of Parent- and Alkylated-Polycyclic Aromatic Hydrocarbons (PAHs) Using Polyethylene Passive Samplers in Petroleum Oil-Impacted Sediment Treated by Activated Carbon, SETAC North America 32nd Annual Meeting, Boston, MA, **2011**.

Luthy, R. G.; Cho, Y.-M.; Janssen, E. M.-L.; Kim, E.-A. In-place Management of Sediment Contaminants: Advances in Modeling Performance, Assessing Bio-uptake, and Designing New Sorbents, NIH, Superfund Research Program, Risk E- Learning Web seminar, January 19, **2011**.

Choi, Y.; Cho, Y.-M.; Janssen, E. M.-L.; Werner, D.; Luthy, R. G., Long Term Risk Reduction from Activated Carbon Treatment of Sediment, Partners in Environmental Technology Technical Symposium & Workshop, Washington D.C., **2010**.

Janssen, E. M.-L.; Cho, Y.-M. et al., Measurement and Modeling of Ecosystem Risk and Recovery for *In-situ* Treatment of Contaminated Sediments, Partners in Environmental Technology Technical Symposium & Workshop, Washington D.C., **2010**.

Cho, Y.-M.; Werner, D.; Luthy, R. G.; Modeling *In-situ* Application of Activated Carbon to Sequester Hydrophobic Organic Compounds in Sediments, Invited Paper, 239th American Chemical Society (ACS) National Meeting. San Francisco, CA, **2010**.

Cho, Y.-M.; Janssen, E. M.-L.; Werner, D.; Luthy, R. G., Long Term Risk Reduction from Activated Carbon Treatment of Sediment Partners in Environmental Technology Technical Symposium & Workshop, Washington D.C., **2009**.

Janssen, E. M.-L.; Cho, Y.-M.; Thompson, J.; Luoma, S.N.; Luthy, R. G.; Measurement and Modeling of Ecosystem Risk and Recovery for In Situ Treatment of Contaminated Sediment, International Network for Sediment Research, University of Newcastle, UK, Workshop May 29-30, **2009**.

Luthy, R. G.; Cho, Y.-M.; Ghosh, U.; Kennedy, A. J.; Bridges, T. S. Field Application of Activated Carbon Amendment for In-situ Stabilization of PCBs in Sediment, American Chemical Society 237th Annual Meeting, Division of Environmental Chemistry, Symposium in Honor of James O. Leckie, Salt Lake City, UT, March 22-26, **2009**.

Cho, Y.-M.; Luthy, R. G.; Ghosh, U.; Kennedy, A. J.; Bridges, T. S. Field Testing of Activated Carbon Mixing and In-situ Stabilization of PCBs in Sediment, Partners in Environmental Technology Technical Symposium & Workshop, Washington D.C., December 2-5, **2008**.

Janssen, E.M.-L.; Cho, Y.-M.; Tomaszewski, J. E.; Ahn, S.W.; Luthy, R. G.; Thompson, J.; Luoma, S.N. Measurement and Modeling of Ecosystem Risk and Recovery for In Situ Treatment of Contaminated Sediments, Gordon Research Conference on Environmental Sciences, Holderness School, NH, June 22-26, **2008**.

Luthy, R. G.; Cho, Y.-M.; Kennedy, A. J.; Bridges, T. S.; Ghosh, U. Field Testing of Activated Carbon Mixing and In-situ Stabilization of PCBs in Sediment, International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, CA, May 19-22, **2008** [invited].

Cho, Y.-M.; Smithenry, D. W.; Ghosh, U.; Kennedy, A. J.; Millward, R. N.; Bridges, T. S.; Luthy, R. G. Field Testing of Activated Carbon Mixing and In-situ Stabilization of PCBs in Sediment, Partners in Environmental Technology Technical Symposium & Workshop, Washington D.C., **2006**.

Cho, Y.-M.; Smithenry, D. W.; Ghosh, U.; Kennedy, A. J.; Millward, R. N.; Bridges, T. S.; Luthy, R. G. Application of Activated Carbon Amendment for In-situ Stabilization of PCBs in Sediment: Field-Scale Studies, CALFED Bay-Delta Program Science Conference, Sacramento, CA, **2006**.

Cho, Y.-M.; Smithenry, D. W.; Luthy, R. G., Preliminary Field Testing of Activated Carbon Mixing and In-situ Stabilization of PCBs in Sediment. Poster presentation, 230th American Chemical Society (ACS) National Meeting. Washington D.C., **2005**.

Cho, Y.-M.; McLeod, P.B.; Smithenry, D.W., Reducing PCB bioaccumulation in the lab and field. Invited presentation, Environmental Engineering and Science Lecture Series, Department of Civil and Environmental Engineering, Stanford University, Stanford, CA, **2004**.

Academic Services

Academic Mentor, NSF Research Experiences for Undergraduates (REU) Program, ReNUWIt, Stanford	2020
Judging Panel for STENnovation Challenge at Harker Research Symposium, Harker Upper School, San Jose, CA	2019
Guest speaker for AVID program at Branham High School, San Jose, CA	2019
Guest lecturer for Science class at Burlingame Intermediate School, Burlingame, CA	2019
Academic Mentor, The Raising Interest in Science and Engineering (RISE) Summer Internship Program, Stanford University	2015, 2016, 2019
Academic Mentor, Ignited (formally Industry Initiatives for Science and Math Education IISME Program)	2015, 2016
Advisor, The Sustainable Remediation Forum (SURF), Student Chapter at Stanford University	2012-2014
Peer Reviewer, Environmental Science and Technology, American Chemical Society	since 2009
EES Seminar Committee, Department of Civil and Environmental Engineering, Stanford University	2005

Extracurricular Activities

President of Stanford Korean Tennis Club, KSAS, Stanford University	2005
Vice President of Stanford Korean Tennis Club, KSAS, Stanford University	2004
Interviewer of ChemWorld Periodical, The Korean Chemistry Society	2000
Website designer & content manager:	
J. H. Suh research group, Seoul National University	2000-2003
Department of Chemistry, Seoul National University	2002-2003
R. G. Luthy research group, Stanford University http://luthygroup.stanford.edu	2005-present

Languages

Native in Korean, fluent in English

Skills

Analytical Instruments

HPLC, LC-MS/MS, GC, GC-MS, UV-VIS, NMR, IR, MALDI TOF

Computational

OS: Window, Mac, Linux, Unix

Software: MicroSoft Office, Adobe Creative Suite, SimaPro, ArcGIS, Latex, Bibtex, EndNote

Programming: MatLab, Python, R, Java, C

Webdesign: HTML, PHP, Drupal

Database: MSSQL, MySQL, Zoho Applications (Creator, Invoice)