Update on 12/11/2025

CURRICULUM VITAE

Yong Cai

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EDUCATION

1986 - 1989	Ph.D., Environmental Chemistry, Department of Environmental Sciences, Nankai University, 300071 Tianjin, P.R. China. Thesis Title - Occurrence, transport, and transformation of organotin compounds in Tianjin Harbor, China.
1983 - 1986	M.S., Environmental Chemistry, Department of Environmental Sciences/Department of Chemistry, Nankai University, 300071 Tianjin, P.R. China. Thesis Title - Method development for organotin compounds analysis in environmental samples.
1978 - 1982	B.Sc., Chemistry, Department of Chemistry, Ocean University of Qingdao.

EXPERIENCE

2024 – Present	Professor, Department of Chemistry & Biochemistry and Institute of Environment, Florida International University, Miami, FL 33199.
2016 – 2024	Professor and Chair, Department of Chemistry & Biochemistry and Institute of Environment, Florida International University, Miami, FL 33199.
2009 – 2016	Professor, Department of Chemistry & Biochemistry and Southeast Environmental Research Center, Florida International University, Miami, FL 33199.
2003 - 2009	Associate Professor, Graduate Program Director, Department of Chemistry & Biochemistry and Southeast Environmental Research Center, Florida International University, Miami, FL 33199.
1997 - 2003	Assistant Professor, Department of Chemistry and Southeast Environmental Research Center, Florida International University, Miami, FL 33199.
1995 - 1997	Research Associate, Southeast Environmental Research Program, Florida International University, Miami, FL 33199.
1993 - 1995	Research Associate, Environmental Chemistry Department, Consejo Superior de Investigaciones Cientificas, Centro de Investigacion y Desarrollo (C.I.D. - C.S.I.C.), Barcelona, Spain.
1989 - 1993	Post-Doctoral Research Fellow, Biogeochemistry Department, Max Planck Institute for Chemistry, Mainz, Germany.
1986 - 1989	Ph.D. Student, Department of Environmental Sciences, Nankai

	University, Tianjin, P.R. China.
1986 - 1989	Lecturer, Department of Environmental Sciences, Nankai University, Tianjin, P.R. China.
1983 - 1986	M.S. student, Department of Environmental Sciences/Department of Chemistry, Nankai University, Tianjin, P.R. China.
1982 - 1983	Laboratory Technician, Pingdu Bureau of Environmental Protection, Shandong Province, P.R. China.

Other Professional Experiences/Positions

2014-2023	Advisory Board member, the State Key Laboratory of Environ. & Bio. Anal., Hong Kong Baptist University.
2010-2023	Advisory Board member, the State Key Laboratory of Environmental Chemistry and Ecotoxicology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences.
2005-2014	Chinese National Natural Science Foundation Chemistry Division (2005-2008, 2011- 2014) grant review panel
2011-2012	International Committee Member, 4th International Congress on Arsenic in the Environment. July 23-27, Australia.
2006-2008	Member, International Committee of International Society of Trace Element Biogeochemistry
2005-2023	Guest Professor, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
2004-present	Honors Research Affiliate, The Honors College, Florida International University
2003-present	Graduate Faculty of Florida International University
2002-present	Affiliated faculty member, Department of Environmental Studies, Florida International University

HONORS, PRIZES, FELLOWSHIPS

- Florida International University Faculty Award for Excellence in Research, 2005
- Fellowship of the Ministry of Education and Sciences, Spain, Feb.1993-Feb. 1995
- Max-Planck-Gesellschaft (Max-Planck-Society) Post-Doctoral Research Fellowship, Nov. 1989-Feb. 1993
- Shixian Yang Prize for Outstanding Ph.D. Student, 1988

MEMBERSHIPS

1995- Present	American Chemistry Society
2001- Present	Society of Environmental Toxicology and Chemistry

TEACHING

Courses taught at FIU

- General Chemistry Lab (CHM 1045L)
- Hyphenated Analytical Techniques (CHM 6166)
- Instrumental Analysis (CHM 4130)
- Instrumental Analysis Laboratory (CHM 4130L)
- Sampling and Chemometrics (CHM 5931)
- Graduate Analytical Method (CHM 5150)
- Advanced Analytical Chemistry (CHM 6157)
- Introduction to Analytical Chemistry Lab (CHM 3120L)
- Environmental Chemistry of Trace Elements (CHM 6088)
- Advanced Mass spectrometry (CHM 5138)
- Undergraduate Research (CHM 4910L)
- Undergraduate Research 2 (CHM 4911L)
- Undergraduate Independent Study in The Department of Environmental Studies (EVR 4905)
- Graduate Research in Chemistry (CHM 6910L)
- Thesis Research (CHM 6970)
- Master's Thesis (CHM 6971)
- Dissertation Research (CHM 7910)
- Ph. D. Dissertation (CHM 7980)

Course and Curriculum Development Activities

- Hyphenated Analytical Techniques (CHM 6166)
- Sampling and Chemometrics (CHM 5931)
- Advanced Analytical Chemistry (CHM 6157)
- Environmental Chemistry of Trace Elements (CHM 6088)
- Modified Modern Analytical Lab (CHM 4130L) and added new experiments

Graduate Student Supervision

Ph.D:

Weihua Zhang	1999-2004. "Mechanistic study of arsenic uptake, transformation and tolerance in arsenic hyperaccumulator *Pteris vittata*". Current Affiliation: self-employed.
Zhangrong Chen	2002-2006. "Colloid-facilitated arsenic transport and speciation in porous soil media" Current Affiliation: Research Scientist, Azopharma Pharmaceutical Services, Miramar, Florida.
Yuxiang Mao	Fall 2004-2009. "Occurrence, transport and transformation of organomercury in the Florida everglades"

	Current Affiliation: Professor, Institute of Resources and Environment, Henan Polytechnic University, Jiaozuo, 454000, China
Lucy Yehiayan	Spring 2006-2010. "The interactions of different arsenic species with thiols: chemical and biological implications" Current Affiliation: DaVita Inc. 3951 SW 30th Ave, Fort Lauderdale, FL 33312
Sen Chen	Fall 2006-Summer 2011. "Reduced organic sulfur: speciation and interaction with mercury in the aquatic environment." Current Affiliation: Belzona Global, LLC, 14300 NW 60th AVE., Miami lakes, FL 33014
Dionne Dickson	Fall 2007-2012. "The effects of engineered iron nanoparticles on the transformation and fate of arsenic in aquatic environment" Current Affiliation: Professor in the Chemistry department at Miami Dade College, Miami, Florida.
Szabina Stice	Fall 2010-2014. "Speciation, Metabolism, Toxicity and Protein-Binding of Different Arsenic Species in Human Cells". Current Affiliation: Senior Toxicologist, FDA, College Park, Maryland
Ping Jiang	Fall 2011-Summer 2016, "HgS dissolution in environmental conditions - thermodynamic and kinetic approaches" Current Affiliation: Laboratory Manager, FIU IFRI
Mingwei Yang	Fall 2012-Summer 2017, "In situ Arsenic Speciation Using Surface-Enhanced Raman Spectroscopy" Current Affiliation:
Wenbin Cui	Fall 2012- Summer 2017 "The Evaluation of Human Exposure to Mercury through diet", Current Affiliation: ThermoFisher, China
Yongmin Wang	Fall 2012-2014, "The Effects of particulates in water on the measurement of cycling of elemental mercury" Joint Ph.D. Program with Southwest University, China. Current Affiliation: Professor, Southwest University, China.
Hansell Gonzalez-Raymat	Spring 2014-Fall 2018, "Unrefined Humic Substances as a potential low-cost remediation method for acidic groundwater contaminated with uranium." Current Affiliation: Senior Scientist at Savannah River National Laboratory
Silvina Di Pietro	Fall 2015-Spring 2021, "Uranium Fate and Mineral Transformations upon Remediation with Ammonia (NH_3) Gas"

	Current Affiliation: Senior Scientist, Lawrence Livermore Nat'l Lab, Physical and Life Sciences Directorate, Division of Material Science, Chemistry/Material Research Scientist Staff
Valery Liamtsau	Fall 2016- Summer 2021, "In Situ Arsenic Speciation using Surface-Enhanced Raman Spectroscopy and the Coffee Ring Effect" Current Affiliation: Poland
Afia Anjuman	Fall 2017-Fall 2023, "Characterization of Dissolved Organic Matter Percolated from Periphyton in Everglades and Interaction with Mercury" Current Affiliation: Post-Doc, FIU
Katelyn Lambert	Fall 2018-Summer 2023, "Characterization of New Float Glass Standards and Two Global Interlaboratory Studies to Evaluate Forensic Glass Evidence Interpretation" Current Affiliation: State of Washington Crime Laboratory
Peter Olusakin Oladoye	Spring 2021- Spring 2025 "Effect of Suspended Particles on Photochemical Redox Reactions of Mercury Species in Aquatic Environments" Current Affiliation: Texas DSHS Public Health Laboratory
Mayowa Oladipo	Fall 2022- "Understanding the Discrepancies in Determining Conditional Stability Constants of Mercury-Dissolved Organic Matter Binding"
Samuel Ogunsola	Fall 2023- "Redox Transformation of Mercury at the Sediment-Water Interface of Wetlands"
Carolyn Cooke	Fall 2023- "Utilizing Organoclay Amendments as a Sorbent for Iodine-129 in the Savannah River Site F-area Wetland"
Jonathan Awewomom	Fall 2024- "Assessment of cocaine and coca leaf provenance using strontium isotopes (87Sr/86Sr) and trace metal analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)"

MS:

Sugunya Monsalud	1997-1999. "Determination of organomercury compounds in environmental and biological samples by using derivatization and gas chromatographic detection". (Major Professor).
Maria Sheils	1999-2002 "Characterization and interactions of mercury, dissolved organic matter and organic sulfur in surface waters of the Florida Everglades". (Major Professor).

Jinhui Su	2000-2002 "Low molecular weight thiols in arsenic hyperaccumulator, *Pteris vittata*, upon exposure to arsenic and other trace elements" (Major Professor).
Myrin Georgiadis	2001-2004 "Arsenic speciation in soils and sediments" (Major Professor).
Prabhkar Pant	2002-2003 "Natural attenuation of trichloroethene: in-stream behavior, fate and transport" (Co-advisor).
Marnie Billie	2000-, "Trace metals in Feathers of Osprey population in The Everglades National Park". (co-advisor).
Julio Cabrera	2002-2009 "Mercury Characterization in Soil Collected near the DOE Oak Ridge Reservation". (Major Professor)
Katia Guanira	2002-2003. Left from the program in 2003 because of sickness. (Major Professor)
Sheena Szuri	2003-2009, "Improving arsenic uptake from soils by the hyperaccumulating plant *pteris vittata L.* through soil amendments.' (Major Professor)
Zhiwei Duan	Fall 2008 -2011 "Trace metals in the Florida Everglades". Dade College, Adjunct Professor
Shuo Li	Fall 2009-Fall 2011, "Interactions of Toxic Metals with Algal Toxins Derived from Harmful Algal Blooms".
David Buechel	Fall 2011-, "Metabolism of Arsenic in Cancer Cells Upon Exposure to Darinaparsin"
Nathan Gonzalez	Fall 2011-, "Dissolution of arsenic-containing mineral".
Robert Lapierre	Fall 2013- Fall 2018

Undergraduate Student Supervision

Jesse Hidalgo	Spring 1998 - Summer 1998, "Application of large volume injection for organomercury analysis".
David Ventriere	Fall 1997 – Summer 1998, "Occurrence of mercury in the canals around the Miami International airport". & " Comparison of the methods for extraction of organomercury from invertebrate".
Christina Romanach	Spring - Summer 1998, "Simultaneous determination of organometallic compounds using derivatization reaction followed by GC/MS and GC/AED detection".
Rick Irizarry	Summer 1998, "Selenium determination by AFS".
Joseph Moore	Fall 1998 – Summer 1999, "A comprehensive study of AFS for selenium analysis in biological samples".
Myron Georgiadis	Spring 1999, "Arsenic concentrations in Seagrass of Florida Bay".
Isabel Menchaca	Summer 1999 - , "Simultaneous determination of organo-mercury, lead, and tin using GC-AED".
Kim Sarkies	Fall 1999 – Summer 2000, "Mercury and selenium concentrations in invertebrates in the Florida Everglades".

Julio Cabrera	Summer 2000 - , "Fate and transport of arsenic species in the soils of South Florida golf courses"
Gustavo Gonzalez	Fall 2000 - , "Arsenic and phosphorus in water and sediment samples from Florida Bay"
Sheena Powell	Spring 2002- December 2002, "Equilibrium dialysis as viable analytical technique to study the fate transport of arsenic leached from CCA-treated wood".
Jill Schrlau	Summer 2002-Summer 2003, "Arsenic transport and transformation associated with MSMA application on a golf course green".
Terry Pitman	Summer 2003, Department of Environmental Studies (working at RSMAS UM with Lora Fleming), "Overview of the environmental health effects of harmful algal blooms".
Damaris Hernandez	Summer 2003-Summer 2008, "A study of arsenic speciation in rainwater leaching of pond ash from the Savannah River site".
Alejandro Jaramillo	Summer 2004-Fall 2004, "The effects of organic matter and colloids on the adsorption of arsenic to golf course soil-water systems".
Carlos Zuniga	Summer 2004-Spring 2005, "Arsenic speciation in Alga *Nostoc*".
Raidel Figueroa	Summer 2004-Spring 2005, "Total arsenic concentration in traditional Chinese medicinal herbs via ICP/MS."
Sandra Zapata	Summer 2005-Fall 2005, "Comparisons of techniques for mercury analysis in water samples."
Robyn Thompson	Fall 2005-Summer 2006, "The effects of soil parameters on the adsorption of arsenic species to gardening and high organic content soils."
Elys Viera	Spring 2007-Summer 2008, "The presence of methylmercury in cooked and uncooked Fish".
Aymara Fernandez	Spring 2007-Summer 2008, "Evidence for the binding arsenite to dissolved metal humate"
Cristina Diez-Rivas	Summer 2007-Spring 2008, "Pilot study of mobility of arsenic, chromium, and copper from soil column".
Ivy Fernandez	Summer 2007-Spring 2008, "Heavy metals contamination of herbal supplements".
Nelly Membreno	Spring 2008-Fall 2009, "Total Arsenic determination in KMS 11 and 8826/s multiple Myelome cells".
Glenda Alvarado	Spring 2009-Fall 2009, "Determination of the major source and sink of MeHg in the Florida Everglades"
Sergiv Fiodorov	Spring 2009-fall 2009, "Innovative Mercury Remediation technologies"
Reinier Hernandez Rodriguez	Fall 2009-Spring 2010, "Characterization of Iron-Polyphosphate precipitates formation"

Mercy Jimenez	Spring 2011-fall 2011, "The methyl mercury content in commercial rice in the US"
Silvina Di Pietro	Spring 2012-Fall 2012, "Total Mercury Content of Commercial Rice in the US"
Susana Bellido	Fall 2012, "Human exposure to mercury, methylmercury and other key trace elements in fish: Assessment of the effects of food processing"
Jennifer Gonyea	Spring 2013, "Comparisons of trace metals and oxalate in teas"
Stephanie Caceres	Spring 2013, "The effects of organic matter on As adsorption on Nanoparticle Fe"
Nicole Lapeyrouse	Spring 2013, "Bioavailability of mercury in fish after cooking using a physiologically based extraction test"
Christian Pino	Fall 2014, "FIU's Support for Groundwater Remediation at SRS F/H Area."
Vanessa Alvarez	Fall 2014, "Arsenic-containing drugs: chemistry and biology aspects"
Andres Marin	
Carolina Liriano	Fall 2015, "Adsorption Elemental Mercury in Soil and Aqueous Environments."
Christopher Schnoor	Spring 2016, "Surface-Enhanced Raman Spectroscopy for multiple detection of organic and inorganic Arsenicals by utilization of Silver Nanofilm."
Patricia Fernandez	Spring 2016, "Survey of Trace Metals in Infant Rice and Oatmeal Cereals."
Afia Anjuman	Spring 2017, "Surface-Enhanced Raman Spectroscopy study of Arsenic Speciation under Cellular Matrix influence."
Angel Rojas	Spring 2017, "Determination of Methyl Mercury and Total Mercury Concentrations in Everglades Periphyton."
Christopher Schnoor	Spring 2017, "Surface-Enhanced Raman Spectroscopy for multiple detection of organic and inorganic Arsenicals by utilization of Silver Nanofilm."
Michael Ojeda	Spring 2017, "The Bioaccessibility of Methylmercury in Infant Rice Cereal and Fish."
Rosario Mayta Villegas	
	Fall 2018, "Speciation of Cysteine and Methionine by Coffee Ring Effect coupled with Surface-Enhanced Raman Spectroscopy."
Brooke Bailey	Fall 2018, "
Rafael Espinoza	Summer 2019, "Transformation of Roxarsone in the Environment and Potential Environmental Impact."
Emili Lopez	Spring 2020, "Periphyton EPS: Characterization and Relation to Biogeochemistry of Trace Metals."
Marie Marseille	Spring 2020, " Determination of Heavy Metals in Greenwashing Cosmetic/ Personal Care By ICP-MS."

Zaria Edwards	Fall 2020, “
Keith Tinjaca	Fall 2020, " Occurrence, source and possible mechanisms of dimethylmercury production in natural environment.”
Victor Escalante	Fall 2020, " Applications of coffee ring effect in analytical chemistry.”
Jose Ortega	Fall 2020, “The role of particulate Hg in the transport of riverine Hg to coastal seas and further to open oceans.”
Asael Rodriguez	Spring 2021, “Synergetic role of bacteria and algae within periphyton: From nutrient cycling to metal metabolism.”
Jose Miguel Sanz	
Alyssa Diaz	Fall 2021,
Paola Parrales	Fall 2021,
Juan Olaya	Spring 2023, “Effects of nanoparticles on mercury transformation in Aquatic environment.”
Amoya Bunsie	Spring 2024-Spring 2025 “Mercury in the soil and sediment in the Everglades, REMAP V”
Daniel Kouefati	Summer 2024-Spring 2025
Neekita Konde	Fall 2024-Spring 2025
Naiara Irizarry	Spring 2025

High School Student Research Supervision

The following high school students worked/studied in my lab through Miami-Dade County Public School Advanced Academic Internship Program

Xiaolong Zhou	Fall 1999 – Summer 2001 “Determination of trace metals in soils from the Florida Everglades using ICP-MS”. 2002 US Presidential Award winner.
Amy Cruzeta	Fall 2001 – Summer 2002 “Determination of organic acids in Brake fern using capillary electrophoresis”
Loumarie Colon	Fall 2003 – “Arsenic phytoremediation using *P. vittata* from fly ash”

Visiting Scientist/Post-Doctoral

Professor Alfred Hirner	Fall 1999, on a sabbatical leave from University of Essen, Germany.
Professor Guibin Jiang	Fall 2005, on a sabbatical leave from Eco-Environmental Research Center, Chinese Academy of Science. China.
Dr. Min Feng	2002-2004, Fudan University, China.
Dr. Guangliang Lu	2004-2007, Nankai University, China.
Dr. Ligang Hu	2006-2010, Eco-Environmental Research Center, Chinese Academy of Science. China.
Dr. Yanbin Li	Fall 2008-Fall 2012, Ocean University of Qingdao.

Dr. Yongguang Yin	Fall 2008, on a sabbatical leave for one month from Eco-Environmental Research Center, Chinese Academy of Science. China. Fall 2009- Fall 2010, Visiting Scientist
Dr. Luis Carrasco	Fall 2008, short term visiting scholar from Environmental Chemistry Department, Consejo Superior de Investigaciones Cientificas, Centro de Investigacion y Desarrollo (C.I.D. - C.S.I.C.), Barcelona, Spain.
Professor Zongwei Cai	Hong Kong Baptist University
Dr. Chao Tai	Fall 2010-2011, Institute of Resources and Environment, Henan Polytechnic University, Jiaozuo, 454000, China
Dr. Haiyu Yan	Fall 2010-2011, Institute of Geochemistry, the Chinese Academy of Sciences (CAS), China
Dr. Yiqun Xu	Fall 2011-2012, Yangzhou University, China
Dr. Bo Meng	Spring 2013- Spring 2014, Post-Doc, Institute of Geochemistry, the Chinese Academy of Sciences (CAS), China
Dr. Yongmin Wang	Southwest University, China
Dr. Naseem Rauf	Jan. 14 to Jan. 15. Fulbright Professor, Pakistan Council of Scientific & Industrial Research
Dr. Changjun Fan	September 2016-November 2018, Post-Doc
Dr. Ping Jiang	Jan 2019-Summer 2019, Post-Doc
Dr. Kang Wang	Fall 2019- Present, Post-Doc.

PUBLICATIONS

BOOKS

1. **Yong Cai** and Olin Braids, Editors, "Biogeochemistry of Environmentally Important Elements". ACS Symposium Series 835, American Chemical Society, Washington, DC. Oxford University Press, 2002.
2. Guangliang Liu, **Yong Cai,** Nelson O'Driscoll, Editors, "Advances in Environmental Chemistry and Toxicology of Mercury". John & Wiley Book, 2012.

REFERRED PUBLICATIONS

(FIU students or Post-Doc supervised by Yong Cai are underlined)

2025-2026

2024-2025

1. Wang, Z. D.; Tang, W. Y.; Ding, X. D.; Dong, Q.; Guo, Y. Y.; Liu, G. L.; Liu, Y. W.; Liang, Y.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Different extractable pools of Cd and Pb in agricultural soil under amendments: Water-soluble concentration sensitively indicates metal availability. J. Environ. Sci. 2025, 150, 297-308.
2. Zhang, L.; Dai, Q. L.; Liu, H*. Q.; Li, Y. B.; Yin, Y. G.; Liu, G. L.; Dai, P.; Cao, X. Q.; Zhang, J.; Cai, Y*., Probing methylmercury photodegradation by different fractions of natural organic matter in water: Degradation kinetics and mercury isotope fractionation characteristics. Environmental Pollution 2025, 367. https://doi.org/10.1016/j.envpol.2024.125563
3. Yin, Z. P.*; Zhang, M.; Liu, R. Z.; Cai, Y.*, Explainable machine learning models enhance prediction of PFAS bioactivity using quantitative molecular surface analysis-derived representation. Water Research 2025, 280. https://doi.org/10.1016/j.watres.2025.123500
4. Yang, P. J.; Wang, Y.; Tian, X. W.; Cui, Y. F.; Jiang, T.; Liu, G. L.; Liu, Y. W.; Guo, Y. Y.; Hu, L. G.; Shi, J. B.; Zhang, Q. H.; Yin, Y. G.*; Cai, Y.; Jiang, G. B., Heating-Induced Redox Property Dynamics of Peat Soil Dissolved Organic Matter in a Simulated Peat Fire: Electron Exchange Capacity and Molecular Characteristics. Environmental Science & Technology 2025, 59, (1), 489-500. https://doi.org/10.1021/acs.est.4c09174
5. Wang, Z. D.; Tang, W. Y.; Ding, X. D.; Dong, Q.; Guo, Y. Y.; Liu, G. L.; Liu, Y. W.; Liang, Y.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Different extractable pools of Cd and Pb in agricultural soil under amendments: Water-soluble concentration sensitively indicates metal availability. Journal of Environmental Sciences 2025, 150, 297-308. https://doi.org/10.1016/j.jes.2024.01.055
6. Wang, X.; Wang, Y. J.; Zhang, Y. Q.; Liu, Z. Y.; Ji, X. M.; Cai, Y., Mercury contents and potential exposure risk of rice-containing food products. Journal of Environmental Sciences 2025, 148, 683-690. https://doi.org/10.1016/j.jes.2024.02.004
7. Wang, X.; Cui, W. B.; Wang, Y. J.; Li, Y. B.; Meng, B.; Nicolas, G.; Ojeda, M.; **Cai, Y.*,** The compounding effect of re-adsorptionon on bioaccessibility of methylmercury in rice-based infant cereals by vitro digestion assessment. Journal of Environmental Sciences 2025, 152, 477-487. https://doi.org/10.1016/j.jes.2024.05.052
8. Liu, X. Q.; Wang, Y. J.; Ji, X. M.; Zhang, Q. Z.; Song, Y.; Li, Y. B.; Yin, Y. G.; Cai, Y., Organic matter content, source, and composition varying with seasons and anthropogenic activities regulate methylmercury dynamics in the Yellow River. Environmental Pollution 2025, 372. https://doi.org/10.1016/j.envpol.2025.126042

9. Liu, W. J.; Wang, W. T.; Jing, C. Y.; Yin, Z. P.*; Cai, Y., Novel arsenate-respiring bacteria drive arsenic biogeochemical cycling in Tibetan geothermal springs revealed by DNA-SIP based metagenomics. Journal of Hazardous Materials 2025, 485. https://doi.org/10.1016/j.jhazmat.2024.136899
10. Liu, F. Y.; Xue, H.; Kang, T. S.; Lei, Q. P.; Chen, J. Z.; Zuo, Z. H.; Han, B.; Lu, X. Z.; Yang, X.; Shan, X. C.; Song, X. Y.; Zhang, Q. Z.*; Yin, Y. G.; Cai, Y., Efficient photodegradation of perfluoroalkyl substances under visible light by hexagonal ZnIn2 S4 nanosheets. Journal of Environmental Sciences 2025, 148, 116-125. https://doi.org/10.1016/j.jes.2024.01.014
11. Fang, Y. Y.; Song, Q. Y.; Yang, Q. Q.; Xia, Y.; Chen, B. L.; Lin, Z.; Liang, Y.; Yin, Y. G.; Cai, Y.; Jiang, G. B., •OH Dominates the Dark Oxidation of Elemental Mercury at the Liquid-Ice Interface during Environmentally Relevant Freeze-Thaw Cycles. Environmental Science & Technology Letters 2025. https://doi.org/10.1021/acs.estlett.5c00296
12. Cui, Y. F.; Zhang, X. Y.; Yang, P. J.; Liu, Y. W.; Song, M. Y.; Su, G. J.; Guo, Y. Y.; Yin, Y. G.*; Jiao, W. T.; Cai, Y.; Jiang, G. B., Low-molecular weight organic acids can enhance the microbial reduction of iron oxide nanoparticles and pollutants by improving electrons transfer. Journal of Hazardous Materials 2025, 486. https://doi.org/10.1016/j.jhazmat.2025.137123
13. Zhang, D. X.; Chu, B. W.; Yang, Q. Q.; Zhang, X. Y.; Fang, Y. Y.; Liu, G. L.; Liang, L. A.; Guo, Y. Y.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Degradation of organic mercury in high salt environments by a marine aerobic bacterium Alteromonas macleodii KD01. Bioresource Technology 2024, 402. https://doi.org/10.1016/j.biortech.2024.130831
14. Yang, P. J.; Wang, S.; Sun, T. R.; Jiang, T.; Cui, Y. F.; Liu, G. L.; Guo, Y. Y.; Liu, Y. W.; Hu, L. G.; Shi, J. B.; Zhang, Q. H.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Fire-Induced Multiple Changes in Electron Transfer Properties of Peat Soil Organic Matter: The Role of Functional Groups, Graphitic Carbon, and Iron. Environmental Science & Technology 2024, 58, (46), 20457-20467. https://doi.org/10.1021/acs.est.4c06586
15. Xu, T.; Tian, X. W.; Liu, Y. W.; Guo, Y. Y.; Hu, L. G.; Yin, Y. G.; Zhang, Q. H.; Cai, Y.; Jiang, G. B., Advances in Inductively Coupled Plasma-Mass Spectrometry for Detection of Endogenous and Exogenous Substances in Single Cells. Chinese Journal of Analytical Chemistry 2024, 52, (10), 1403-1412.
16. Xu, K.; Ren, J. J.; Zhang, M.; Yin, Y. G.; Jing, C. Y.; Cai, Y., Fast On-Site Speciation and High Spatial Resolution Imaging of Labile Arsenic in Freshwater and Sediment Using the DGT-SERS Sensor. Analytical Chemistry 2024, 96, (44), 17486-17495. https://doi.org/10.1021/acs.analchem.4c01824
17. Xiang, Y. P.; Liu, G. L.; Yin, Y. G.*; Li, Y. B.; Wang, D. Y.; **Cai, Y**.*; Jiang, G. B., Human activities shape important geographic differences in fish mercury

concentration levels. Nature Food 2024, 5, (10). https://doi.org/10.1038/s43016-024-01049-z

18. Wu, Y. R.; Liu, G. L.; Liu, X. Q.; Mao, Y. X.; Guo, Y. Y.; Liu, Y. W.; Zhu, L. C.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Towards a better understanding of ethylmercury in the environment: Addressing propylation derivatization artifact and verifying its occurrence in Chinese wetlands. Water Research 2024, 263. https://doi.org/10.1016/j.watres.2024.122167
19. Wang, M. X.; Liu, Y.; Cai, Y.; Song, Y.; Yin, Y. G.; Gong, L. Y., Inhibition of nitrate accumulation in vegetable by Chroococcus sp. and related mechanisms. Rhizosphere 2024, 31. https://doi.org/10.1016/j.rhisph.2024.100934
20. Tian, X. W.; Yang, Q. Q.; Zhao, Y. Q.; Cao, D. D.; Liu, Y. W.; Guo, Y. Y.; Cui, W. B.; Hu, L. G.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Comprehensive Multidimensional Analysis of Metal(loid)-Containing Dust in Plastic Sports Facilities: Insights into the Potential Sources and Health Risks. Environmental Science & Technology 2024, 58, (52), 23212-23221. https://doi.org/10.1021/acs.est.4c11896
21. Shen, Z. L.; Liu, G. L.; Guo, Y. Y.; Jiang, T.; Liu, Y. W.; Shi, J. B.; Hu, L. G.; Song, Y.; Yin, Y. G.; Cai, Y.; Jiang, G. B., Competitive Binding Kinetics of Methylmercury-Cysteine with Dissolved Organic Matter: Critical Impacts of Thiols on Adsorption and Uptake of Methylmercury by Algae. Environmental Science & Technology 2024, 58, (32), 14410-14420. https://doi.org/10.1021/acs.est.4c01127
22. Oladoye, P. O.; Wang, K.; Aguilar, K.; Liu, G. L.; **Cai, Y.*,** Particles-involved photochemical processes: A review for the case of mercury reduction in relation to aquatic mercury cycling. Science of the Total Environment 2024, 931. https://doi.org/10.1016/j.scitotenv.2024.172845
23. Oladoye, P. O.; Liu, G. L.; Zhang, Q.Z.; **Cai, Y.***, Reduction and amalgamation of mercury in silver nanoparticle suspensions under dark conditions. Chemosphere 2025, 144035. https://doi.org/10.1016/j.chemosphere.2024.144035
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312. **Yong Cai** and J.M. Bayona. Simultaneous Speciation of Butyl-, Phenyl-, and cyclohexyltin Compounds in Aqueous matrices Using Ethylation Followed by Solid-Phase Trace Enrichment, Supercritical Fluid Extraction and Gas Chromatographic Determination, *J. Chromatogr. Sci.* **1995**, 33, 89-97.
313. **Yong Cai**, Spyridon Rapsomanikis, and M.O. Andreae. Determination of Butyltin Compounds in Sediments Using An Improved Aqueous Ethylation Method, *Talanta.* **1994,** 41. 589-594.
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318. Shugui Dai, Guolan Huang, and **Yong Cai.** Absorption Behavior of Dimethyltin from Seawater Matrix onto the Suspended Particulate Matters in Tianjin Harbor, *Environ. Pollution.* **1993,** 82, 217-221.
319. Guolan Huang, **Yong Cai**, Weihua Zhang, and Hongxia Lei. Determination of Butyltin Compounds in Water with GC-AAS Combination Technique, *Acta Scientiarum Naturalium Universitatis Nankaiensis.* **1993**, 4, 23-28.
320. **Yong Cai**, Spyridon Rapsomanikis, and M.O. Andreae. Efficiency of Tributyltin Extraction from Rhine River Sediment, *Mikrochim. Acta.* **1992,** 109, 67.
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322. Shugui Dai, Guolan Huang, and **Yong Cai.** A Study of Methylation of Inorganic tin by Iodomethane in an Aquatic Environment with 13C Carbon Isotope Tracer Technique, *Applied Organometallic Chemistry.* **1989,** 3, 115-120.

323. Shugui Dai, Guolan Huang, and **Yong Cai**. The Methylation of Inorganic Tin by Humic Materials in an Aquatic Environment, *Applied Organometallic Chemistry.* **1989,** 3, 437-441.
324. Shugui Dai, Guolan Huang, and **Yong Cai.** Speciation of Organometallic Compounds in the Environment, *Heavy Metals in the Environment.* **1988**. 217-221, Science Press.
325. Shugui Dai, Guolan Huang, and **Yong Cai**. Alkylation of Metals in the Environment, *Environmental Science.* **1987,** 8(6), 2-6.
326. Shugui Dai, Guolan Huang, and **Yong Cai.** Speciation of Methyltin Compounds in Aquatic Environment, *Environmental Monitoring in China.* **1987,** 3(6), 1-4.
327. Liansheng Liu, Shihuai Zheng, Zhengbin Zhang, Diyi Zhou, **Yong Cai** and Gang Pan. An Interfacial Stepwise Ion Exchange Isotherm of Zinc Liquid-Solid Partitioning on δ-MnO2, and γ-MnOOH and Manganite in Seawater, *Journal of Shandong College of Oceanology.* **1984,** 14(3), 31-37.

TECHNICAL REPORTS (selected)

1. Ben Gu, Donald M. Axelrad, Ted Lange,George Aiken , Yong Cai , Tom DeBusk , Forrest Dierberg, Cynthia Gilmour , David Krabbenhoft , William Landing, Yanbin Li, Guangliang Liu, J. Mabry McCray , William H. Orem , Curtis D. Pollman and Alan L. Wright. Chapter 3B: Regional Mercury and Sulfur Monitoring and Environmental Assessment. 2012 South Florida Environmental Report.
2. Robert Stamps, Uttam Saha, Lena Ma, Yong Cai, Edward Zillioux. Effect of Arsenic Levels in Refill Water and Frond Harvest Methods on Arsenic Phytoremediation by Chinese Brake Fern, ASHS-2008 Annual Conference, 21 - 24 July, in Orlando, Florida.
3. Helena Solo-Gabriele, Bernine Khan, Timothy Townsend, Jin-Kun Song, Jenna Jambeck, Brajesh Dubey, Yong-Chul Yang, and Yong Cai, Arsenic and Chromium Speciation of Leachates from CCA-Treated Wood, Prepared for State University System of Florida, FLORIDA CENTER FOR SOLID AND HAZARDOUS WASTE MANAGEMENT, Gainesville, FL 32609. May 30, 2004. Report # 03-06.
4. Adolfo Fernandez, Mark Cejas, Rudolf Jaffe, Yong Cai, Gary Rand, and Piero R. Gardinali. Distribution and Occurrence of Inorganic and Organic Contaminants in Sediments of Everglades and Biscayne National Parks: Progress Report. Report to the Department of Interior, Everglades National Park, February 2003. 10 pp + appendixes + electronic deliverables.
5. Ebadian, M.A., Pant, P., Katsenovich, Y., Oztruk, Z., Jayachandran, K., & Cai, Y. (2003). Determination of Natural Attenuation Mechanisms and Kinetics', Year-end technical progress report for the Fiscal year 2003. Prepared for U.S. Department of Energy-Office of Environmental Management, Office of Science and Technology, Grant No. DE-FG26-00NT40806.
6. Helena Solo-Gabriele, Bernine Khan, Timothy Townsend, Jin-Kun Song, Jenna Jambeck, Brajesh Dubey, Yong-Chul Yang, and Yong Cai, Arsenic and Chromium Speciation of Leachates from CCA-Treated Wood, Prepared for State

University System of Florida, FLORIDA CENTER FOR SOLID AND HAZARDOUS WASTE MANAGEMENT, Gainesville, FL 32609. June 2003.
7. Piero R. Gardinali, Principal Investigator In cooperation with Yong Cai, Rudolf Jaffe, and Joseph Boyer. Effects of increased urban and agricultural landuse on the anthropogenic loading to Southwest Florida estuaries: Volume I Technical report; Volume II Analytical Data. Prepared for the Environmental Services Division, Pollution Control Department Collier County, Florida. October 2002, 194 pp + electronic deliverables.
8. Yong Cai and Marshall Allen, Mercury Contaminated Material Decontamination and Assessment, Final report prepared for US DOE under grant No DE-FG21-95-EW55094, 2001.

HIGHLIGHTS OF RESEARCH and PUBLICATIONS

1. W. Zhang, **Y. Cai**, C. Tu, and L.Q. Ma, Arsenic speciation and distribution in an arsenic hyperaccumulating plant, *Sci. Total Environ*., 2002, 300, 167-177. Ranked 3rd among the most download articles from April to December 2002 in the Journal.
2. The research on golf course arsenic was featured in Environ. Sci. Technol. Online News, Science News, February 9, 2005.
3. Two papers published in Environ. Sci. Technol. 2006, 40, 998-993, and 994-999, were featured in Environ. Sci. Technol. Environmental News Section, February 1, 2006, Vol. 40, Issue. 3.
4. Article published in Environ. Sci. Technol., 2006; *40*(3) pp 994 – 999, was one of the top 10 most-cited articles in 2006. "Release of Arsenic to the Environment from CCA-Treated Wood. 2. Leaching and Speciation during Disposal Bernine I. Khan, Jenna Jambeck, Helena M. Solo-Gabriele, Timothy G. Townsend, and Yong Cai, *Environ. Sci. Technol.*; 2006; *40*(3) pp 994 – 999. http://pubs.acs.org/journals/esthag/promo/most/most_cited/2006.html
   2006 Most-Cited Articles are articles published in 2006 receiving the most citations in the same year. ACS Publications recognizes these articles as research of immediate interest.

OTHER PUBLICATIONS (INTERVIEWS, FEATURE ARTICLES ETC.)

1. Feature article appeared on Banian Bulletin, "FIU Professor develops speciation methods using PSA systems", Banian Technologies, April, 1999.
2. FIU News Letter, Feature Article, July, 2001, "FIU Scientists Conducting Research on Arsenic-Eating Ferns"

RESEARCH

RESEARCH GRANTS

Successful grant proposals

1. Yong Cai (PI) (transferred from Jose Almirall who retired from FIU in October 2022.
   NSF
   Center for Advanced Research in Forensic Science (CARFS), Phase I IUCRC Site at FIU.

2. Yong Cai (PI) (transferred from Jose Almirall who retired from FIU in October 2022.
   NSF
   PFI-TT: A reliable, fast and low-cost field test for hemp.
   8/1/2021-1/31/2025
   $249,956

3. Yong Cai (PI) (transferred from Jose Almirall who retired from FIU in October 2022.
   NSF
   PFI-TT: A reliable, fast and low-cost field test for hemp. Supplement
   8/1/2021-1/31/2025
   $45,766

4. Yong Cai (co-PI) with Daniel Gann (PI),
   National Park Service, Everglades National Park, USEPA
   R-EMAP V
   3/7/2023-4/14/2028
   $548,774 total ($226,551 for Cai)

5. Yong Cai (PI) with Guangliang Liu (co-PI) and Kevin O'Shea (co-PI)
   NSF
   "Photochemical Reactions of Particulate Mercury Species at the Water-Particle Interface in Aquatic Environments"
   8/1/2019 to 7/31/2024
   $424,189

6. Yong Cai (co-PI) with Raphael Raptis (PI), Chris Dares (co-PI) and Konstantinos Kavallieratos (co-PI)
   DOE-SRNS
   "Development of Separations Methods to Address the Challenge of Organic Mercury in Tank Waste"
   9/17-8/18, $391,090.00
   9/18-8/19, $391,090.00
   9/19-8/20, $391,090.00

7. Yong Cai (co-PI) with Kevin O'Shea (PI)
NSF
"Collaborative Research: Adsorption and Photochemical Transformations of Arsenic and Selenium Species by Natural Organic Matter-Coated Magnetic Nano-sized Iron Oxide Particles"
8/15/2017 to 7/31/2020
$258,377

8. Yong Cai (PI)
US Nuclear Regulatory Commission (NRC)
FIU Faculty Development
6/30/2017 to 6/29/2020
$900,000

9. Yong Cai (one of the 6 Team Leaders) (PI: Todd Crowl)
NSF
CREST: Center for Aquatic Chemistry and the Environment CACE
4/5/2016 to 3/31/2021
$5,000,000

10. Yong Cai (Subproject PI)
R-EMAP (Regional Environmental Monitoring and Assessment Program (REMAP) IV
7/1/2013 to 6/30/2016
$275,000

11. Yong Cai (Subproject PI)
"Fate and Transformation of Mercury in Soil Environment"
A research project sponsored by DOE (DE-FG01-05EW07033). FIU Account No. 80000396 (Yong Cai).
The goal of this study is to evaluate the factors controlling transport and transformation of mercury in soil environment.
5/7/10 to 05/6/11
$84.318 (Direct) and $34,889 (Indirect). $119,207 (Total cost)
5/16/11 to 5/15/12
1) $28,802 (Total), received May 25, 2012
2) $49,650 (Total), received December 13, 2012
4/30/2013 to 5/1/2014

12. Yong Cai (PI) with Martin Grocell
NIH-NIEHS-ARCH Program, Administrative Supplement
"Interactions of Toxic Metals with Algal toxins Derived from Harmful Algal Blooms"
9/1/2010 to 8/30/2012 (total budget: $115,526 indirect)
1) $44,837, received for year 1 (9/1/2010 to 8/30/2011)

2) $56,823, received for year 2 (9/1/2011 to 8/30/2012)

13. Yong Cai (PI) with Guangliang Liu (Co-PI)
"The Interactions of Reduced Organic Sulfur and Mercury in the Florida Everglades"
Everglades Foundation Fellowship Program
04/01/10-03/31/11
$20,000

14. Yong Cai (PI) with Guangliang Liu
"Development and Marketing of a Novel Analytical Service for Organomercury Species"
The Entrepreneurial Academy of the Eugenio Pino & Family Global Entrepreneurship Center, 2009 Kauffman Professors
03/01/09-02/28/10
$15,000

15. Yong Cai (Co-Investigator) with Lawrence H. Boise at UM (PI)
"Arsenic-induced apoptosis in myeloma"
NIH (R01CA129968-01)
01/01/09-11/31/13
$160,000 (budgeted total award to FIU).
$32,801 for year 1 (1/1/09 – 11/31/09)
The goals of this study are to better understand the molecular mechanisms of action of arsenical-induced cell death in myeloma. This includes determining the role of differences in uptake and metabolism in the sensitivity of cells to organic vs. inorganic arsenicals.
1) $31,384, received for year 4 (12/1/11 to 11/30/12)

16. Yong Cai (Subproject PI)
"Fate and Transformation of Mercury in Soil Environment"
A research project sponsored by DOE (DE-FG01-05EW07033) under FIU Main Account No. 120702502.
3/1/08 to 05/6/10
    1) $41.809 (Direct) and $16,932 (Indirect). $58,741 (Total cost)
    2) $29,835 (Direct) and $12,083 (Indirect). $41,919 (Total cost)
    3) $7,097 (Direct) and 2,875 (indirect). $9,972 (Total cost)
    Total: 110,632

17. Yong Cai (Co-PI) with Kelly Rein (PI)
"Environmental Health Science at FIU" Administrative Core
NIH-NIEHS-ARCH Program
9/1/2006 to 8/30/2011
$798,155 (Total direct cost) for the Administrative Core.

18. Yong Cai (PI)
NIH-NIEHS-ARCH Program, Trace Metal Core

9/1/2006 to 8/30/2011
$250,000 (Total direct cost) for the Trace Metal Core

19. Yong Cai (PI)
NIH-NIEHS-ARCH Program, Pilot Project 3
"Leachability and Toxicity of As, Copper, and Chromium Associated with CCA-treated Wood"
9/1/2006 to 8/30/2011
$196,575 (Total direct cost) for the Pilot project

20. Yong Cai (co-PI) with Dave Roelant (PI), Marshall Allen et al.
A research project in the Continuation Application to DOE (DE-FG01-05EW07033)
"Remediation and Treatment Technology Development and Support"
09/01/06 – 02/18/07
$1,372,083
$16,864.77 (Direct) and $23,695 (Total) awarded to Yong Cai
02/19/07 – 02/17/08, $40,910 (Direct) to Yong Cai

21. Yong Cai (Sole PI)
A Research Project in NIH-MBRS Program (3 S06 GM008205-20S1)
"Understanding factors controlling speciation and release of arsenic from soil into groundwater".
04/01/2005 – 03/31/2008
$352,855 (direct), app. $435,197 (total)
Y1: $147,174 (direct) + $41,785 (indirect)

22. Yong Cai (Co-PI) with Konstantinos Kavallieratos (PI) and Frank J. Millero
A Research Project in NIH-MBRS Progam (3 S06 GM008205-20S1)
"Toxic metal sensor discovery via ion-change extraction"
04/01/2005 – 03/31/2008
$400,913 (direct), app. $561,278 (total)

23. Yong Cai (Co-PI) with Pete Karla (PI), K. Thornton, J. Richards, R. Welch, M. Madden, J. Trexler, E. Gaiser, T. Phillipi, P. Kalla, and D. Scheidt
Department of Interior/NPS/EPA. CA H5297-05-008 (Account #5297-7106-454)
"Monitoring, Modeling and Assesment of the Everglades Ecosystem in Support of Comprehensive Everglades Restoration Program (CERP): R-EMAP Phase III".
05/01/2005 – 04/30/2008
$210,834 (direct cost), $249,000 (total) awarded to Yong Cai

24. Yong Cai (PI)
FPL/UF. 205001512 (FIU Account Number)
"Phytoremediation of arsenic contaminated groundwater using Chinese Brake fern". Subcontracted to University of Florida
04/01/2005 – 12/31/2006

$17,142 (direct), $18,000 (Total).

25. Yong Cai (PI)
FIU/ABR (Access to Biomedical Research), "New derivatization and analytical methods for speciation of toxic organometallic and metallic compounds in biological and environmental samples".
June 2004 – December 2004.
$5,000.

26. Yong Cai (Co-PI) with Konstantinos Kavallieratos (PI) and Frank J. Millero
NIEHS-ARCH, "Recognition and sensing of Pb(II) by sulfonamide ion exchangers".
08/01/2004 – 07/30/2006
$150,000 (direct), app. $210,000 (total)

27. Yong Cai (Co-PI) with Jose Almirall (PI)
NSF, "Request for a LA-HR-ICP-MS".
Three years starting from August 2004
$415,434

28. Yong Cai (PI) with Helana Solo-Gabrrele and M. Grosell (co-PIs)
Pilot Project Program/P30 ES05705, NIEHS-MFBS
"Toxicity testing of leaching from wood treated with chromated copper arsenate (CCA) – interplay with ambient salinity"
05/01/04 - 04/30/05
$25,000 (direct)

29. Yong Cai (Subproject PI)
DOE/FIU-HCET (DE-FG26-00NT40806)
"Fate, Transport, and Remediation of Mercury in DOE sites at Oak Ridge Reservation".
08/01/03-11/30/05
$94,806 (including $10,000 for supplies and small equipment, such as a purge and trap system for Mercury Analyzer).

30. Yong Cai (Co-PI) with Jose Almirall (PI)
Instrument Grant from PE SCIEX
"Partial Instrument donation of DRC II ICP/MS instrument for research in Forensic and Environmental sciences"
Year 2003
$140,000 and matching fund from FIU A& S ($25,000) and DSRT (25,000). (Total value of the instrument $220.0 K)

31. Yong Cai (Sub-account PI)
MWH/EMAX Laboratories (Main Account FIU/HCET)
"Method development for metal analysis in earth worms"

August 2004 – December 2004
$13,970 (Total)

32. Yong Cai (Subproject PI)
DOE/FIU-HCET (DE-AC09-02SR22229)
"Determination of Natural Attenuation mechanisms & Kinetics, Task Two: Arsenic and Selenium in Fly Ash".
11/01/02-11/24/04
$89,000 ($39,000 for PI salary in Summer 2003 and a graduate tuition and salary for one year, $45,000 for instruments and supplies, including a Millennium AFS System).

33. Yong Cai (Sole PI)
FIU A&S College's Summer Research Support Program
"Sulfur-containing compounds and their roles for arsenic hyperaccumulation in Brake fern".
Summer 2002
$4,000. Fund was used for summer salary ($3,500) and laboratory expenses ($500).

34. Yong Cai (Subproject PI)
DOE/FIU-HCET (DE-AC09-SR22229)
"Technical Research and development of environmental remediation and restoration".
03/01/02-02/28/03
$39,000 (initial $14,050 + $8,000 supplement + tuition and salary for one student).

35. Yong Cai (Sole PI)
Kirk Pharmaceutical, Inc.
"Arsenic decontamination by plants".
02/01/02-01/30/04
$30,000

36. Yong Cai (Sole PI)
Florida Department of Environmental Protection, Rookery Bay National Estuarine Research Reserve (NERR)
"Occurrences of Organotin Compounds in Rookery Bay, CICEET program".
10/01/01-08/30/02
$9,300

37. Yong Cai (PI) with Helena Solo-Gabriela (Co-PI)
National Institute of Environmental Health Sciences (S11 ES11181). Pilot Project in NIEHS/ARCH program "Environmental health Sciences at Florida International University"

Pilot project, "Impacts of arsenic from CCA-treated wood within marine and terrestrial environment, evaluating the toxicity of leachates".
08/01/01-01/31/04
$180,000 (direct)

38. Yong Cai (Co-PI) with L. Ma (PI), D. Sylvia, K. Downum, and Jean-Francois Gaillard.
National Science Foundation/UF. (FIU Account Number 205000512).
"Understanding & enhancement of phytoextraction of arsenic from contaminated soil".
08/01/01-07/30/04
$445,877. Subcontract in the amount of $74,787 (direct cost) to FIU through University of Florida ($24,929 per year).

39. Yong Cai (sole PI)
FIU, Provost's Office and Foundation
"Impact of arsenic from CCA-treated wood: a speciation study".
05/01/01-12/31/01
$15,061

40. Yong Cai (Co-PI) with G. Rand (PI), P. Gardinali, and R. Jaffe.
U.S. Department of Interior, National Park Service
"Screening Level Risk Assessment to Determine Potential High Priority Contaminants and Natural Resources at Risk in Biscayne and Everglades National Parks: Critical information needs for CERP"
04/01/01-03/30/04
$736,000

41. Yong Cai (Co-PI) with P. Gardinali (PI), R. Jaffe, and J. Boyer.
Collier County
"Effects of increased urban and agricultural land use on the anthropogenic loading to southwest Florida estuaries: baseline information to assess changing watersheds".
04/01/01-03/30/02
$88,000

42. Yong Cai (Co-PI) with L. Ma (PI), A. Green, and G. Urdos
National Science Foundation. (FIU Account Number 579901800).
"Phytoremediation of Arsenic Contaminated Soils and Wastes: Feasibility and Optimization".
09/01/00-08/30/02
$185,406. Subcontract in the amount of $22,000 (direct cost) to FIU through University of Florida.

43. Yong Cai (Sole PI)
University of Miami. (FIU Account Number 579901100).

"Method development for arsenic speciation in the leachate of CCA-treated wood".
10/01/00-09/30/01
$8,800. The fund of $4,400 was received initially for six month and with $4,400 renewal for additional six month.

44. Yong Cai (Subproject PI)
DOE/FIU-HCET
"Mercury Contaminated Material Decontamination and Assessment".
11/06/99-10/30/01. $99,100.
The support for Phase I (11/06/99-4/30/2000) was $20,000. Additional fund was awarded for Phase II to a total of $99,100.

45. Yong Cai (Sole PI)
FIU College Grant-in-aid
"Speciation of arsenic using HPLC coupled with AFS".
03/04/99-06/15/99
$680

46. Yong Cai (Co-PI) with R. Jones (PI), R. Jaffe US
EPA/National Park Service
"Mercury Study in the Everglades"
1997-1998; $98,682.
1998-1999; $582,800.
1999-2000, $179,284.

47. Yong Cai (Sole PI)
FIU, College Grant-in-aid
"New derivatization reagents for speciation of organometallic compounds".
10/01/98-12/31/98
$320

48. Yong Cai (Sole PI)
FIU, Provost's Office and Foundation
"New derivatization and analytical methods for speciation of organometallic and metallic compounds in environmental samples".
05/04/98-12/31/98
$13,097.22