

## 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.

### REFERRED PUBLICATIONS

1. Guangliang Liu, Yong Cai, Thomas Philippi, Peter Kalla, Daniel Scheidt, Jennifer Richards, Leonard Scinto, and Charlie Appleby. 2006. Distribution of Total and Methyl Mercury in Different Ecosystem Compartments in the Everglades: Implications for Mercury Accumulation. *Environ. Sci. Technol.* Submitted.
2. Bernine Khan, Helena M. Solo-Gabriele, Jenna Jambeck, Timothy G. Townsend, and Yong Cai, 2007. Response to Comment on "Release of Arsenic to the Environment from CCA-Treated Wood: Part II – Leaching and Speciation during Disposal". *Environ. Sci. Technol.* 41, 347-348.
3. Yong Cai, Guangliang Liu, 2005. Biogeochemical cycling of arsenic and mercury, *In Advances in Environmental Chemistry*, Editor: Shugui Dai, Chemical Industry Press, Beijing China. pp. 209-246.
4. Tomoyuki Shibata, Helena Solo-Gabriele, Lora Fleming, Yong Cai, and Timothy Townsend. 2007. A mass balance approach for evaluating Leachable arsenic and chromium from an in-service CCA-treated wood structure. *The Science of Total Environment.* 372, 624-635.
5. Prabhakar Pant, Marshall Allen, Yong Cai, Krishnaswamy Jayachandran, Yin Chen. 2006. Influence of Physical Factors on Trichloroethylene Evaporation from Surface Water. *Water, Air, and Soil Pollution.* Submitted.
6. Guangliang Liu, Julio Cabrera, Marshall Allen, and Yong Cai. 2006. Mercury characterization in a soil sample collected nearby the DOE Oak Ridge Reservation utilizing sequential extraction and thermal desorption method. *The Science of Total Environment.* 369, 384-392.
7. Zhangrong Chen, Yong Cai, Helena Solo-Gabriele, George H. Snyder, John L. Cisar, 2006. Interactions of Arsenic and the Dissolved Substances Derived from Turf Soils. *Environ. Sci. Technol.* 40, 4659-4665.
8. Yong Cai, Helena Solo-Gabriele; Timothy Townsend; Bernine Khan; Myron Georgiadis; and Brajesh Dubey, 2006. Elemental Speciation and Environmental Importance Associated with Wood Treated with Chromated Copper Arsenate. *In Environmental Impacts of Treated Wood*, Chapter 7. Townsend and Solo-Gabriele Eds. Taylor & Francis, Boca Raton, pp117-137.
9. Yong Cai, Min Feng, Jill E. Schrlau, George H. Snyder, Ming Chen, John L. Cisar, and Raymond Snyder, 2006. Response to Comment on Arsenic Transport and Transformation Associated with MSMA Application on a Golf Course Green. *Journal of Agricultural and Food Chemistry*, 54, 2438-2440.

10. Weihua Zhang, Yong Cai and Konstantinos Kavallieratos, 2006. Investigation of disulfonamide ligands derived from o-phenylenediamine and their Pb(II) complexes by electrospray ionization mass spectrometry. *Rapid Communications in Mass Spectrometry*. 20, 305-308.
11. Myron Georgiadis, Yong Cai, Helena M. Solo-Gabriele. 2006. Extraction of Arsenate and Arsenite Species from Soils and Sediments. *Environmental Pollution*. 141, 22-29.
12. Bernine Khan, Jenna Jambeck, Helena M. Solo-Gabriele, Timothy G. Townsend, and Yong Cai, 2006. Release of Arsenic to the Environment from CCA-Treated Wood: Part II – Leaching and Speciation during Disposal. *Environ. Sci. Technol.* 40, 988-993.
13. Bernine Khan, Jenna Jambeck, Helena M. Solo-Gabriele, Timothy G. Townsend, and Yong Cai, 2006. Release of Arsenic to the Environment from CCA-Treated Wood: Part I – Leaching and Speciation during Service. *Environ. Sci. Technol.* 40, 994-999.
14. Weihua Zhang, Yong Cai. 2005. Metal tolerance in plants: the roles of thiol-containing peptide. *Water Encyclopedia: Surface and Agricultural Water*, Eds. Jay Lehr and Jack Keeley. pp609-615.
15. Tomoyuki Shibata, Helena M. Solo-Gabriele, Lora E. Fleming, Stuart L. Shalat Yong Cai, and Timothy Townsend. 2005. Potential arsenic exposures to children associated with in-service and recycled chromated copper arsenate (CCA)-treated wood in tropical environments. In *WIT Transactions on Ecology and the Environment (ISSN 1743-3541) Vol. 85. Environmental Exposure and Health*. 349-365.
16. Tielian Xu, Yong Cai, Stephen Mezyk, and Kevin E. O'Shea, 2005. The role of hydroxyl radical, superoxide anion radical and hydrogen peroxide in the oxidation of arsenite by ultrasonic irradiation, In *Advances in Arsenic Research, Intergration of Experimental and Observational Studies and Implications for Mitigation*, O'Day, P.; Vlassopoulos, D.; Meng, X.; Benning, L. G., Eds; Symposium Series 915; American Chemical Society, Washington DC, 2005, Ch 24, 333-343.
17. Kertulis, G.M., L.Q. Ma, G.E. MacDonald, R. Chen., J.D. Winefordner, and Yong Cai. 2005. Arsenic speciation and transport in *Pteris vittata* L. and the effects on phosphorus in the xylem sap. *Environ. Exp. Bot.* 54, 239-247.
18. Yong Cai, Weihua Zhang, and Guangliang Liu, 2005. Metals and Organometallics: GC for speciation analysis, In *Encyclopedia of Chromatography*, Editor: Jack Cazes, Taylor & Francis. pp. 1032-1037.
19. Min Feng, Jill Schrlau, Raymond Snyder, George Snyder, Ming Chen, John Cisar, and Yong Cai, 2005. Arsenic Transport and Transformation Associated with MSMA Application on a Golf Course Green. *J. Agric. Food Chem.* 53, 3556-3562.
20. Bernine I. Khan, Helena M. Solo-Gabriele, Brajesh K. Dubey, Timothy G. Townsend, Yong Cai, 2004. Speciation of Solvent-Extracted Leachate from New and Weathered CCA-Treated Wood, *Environ. Sci. Technol.* 38, 4527-4534.
21. Weihua Zhang, Yong Cai, Lena Ma, and Kelsey Downum, 2004. Arsenic complexation in arsenic hyperaccumulator-*Pteris vittata* (Chinese Brake fern), *J. Chromatogr. A*. 1043, 249-254.

22. Weihua Zhang, Yong Cai, Lena Ma, and Kelsey Downum, 2004. Thiol synthesis and arsenic hyperaccumulator in *Pteris vittata* (Chinese brake fern), *Environ. Pollution*. 131, 337-345.
23. Jinhui Su, Yong Cai, Lena Ma, 2004. Low molecular weight thiols in arsenic hyperaccumulator *Pteris vittata* upon exposure to arsenic and other trace elements, *Environ. Pollution*. 129, 69-78.
24. Weihua Zhang and Yong Cai, 2003. Purification and characterization of thiols in an As hyperaccumulator under As exposure. *Anal. Chem.* 75, 7030-7035.
25. Yong Cai, 2003. Derivatization and Vapor Generation Methods for Trace Element Analysis and Speciation. In *Sample Preparation for Trace Element Analysis*, Editors: Mester, Z. and Sturgeon, R., Elsevier. 575-590.
26. Cong Tu, Lena Q. Ma, Weihua Zhang, Yong Cai, Willie G. Harris, 2003. Arsenic species and leachability in the fronds of the hyperaccumulator Chinese brake (*Pteris vittata* L.) *Environ. Pollution*. 124, 223-230.
27. Rudolf Jaffé, Piero R. Gardinali, Yong Cai, Aaron Sudburry, Adolfo Fernandez, and Bernward Hay, 2003. Organic compounds and trace metals of anthropogenic origin in sediments from Montego Bay, Jamaica: Assessment of sources and distribution pathways. *Environ. Pollution*. 123, 291-299.
28. W. Zhang, Y. Cai, C. Tu, and L.Q. Ma, 2002. Arsenic speciation and distribution in an arsenic hyperaccumulating plant, *Sci. Total Environ.* 300, 167-177.
29. Sahar Motamedi, Yong Cai, Kevin O'Shea, 2002. Reaction of ultrasonically generated hydroxyl radicals with arsenic in aquatic in aqueous environments, In *Biogeochemistry of Environmentally Important Trace Elements*, Eds., Yong Cai and Olin Braids, Oxford University Press, 2002. 84-94.
30. Yong Cai, Lena Q. Ma, 2002. Metal Tolerance, Accumulation and Detoxification in Plants with Emphasis on Arsenic in Terrestrial Plants, In *Biogeochemistry of Environmentally Important Trace Elements*, Eds., Yong Cai and Olin Braids, Oxford University Press, 2002.
31. Yong Cai, 2002. Biogeochemistry of Environmentally Important Trace Elements, Overview, In *Biogeochemistry of Environmentally Important Trace Elements*, Eds., Yong Cai and Olin Braids, Oxford University Press, 2002.
32. Yong Cai, J. Cabrera, M. Georgiadis, J. Jayachadran, 2002. Assessment of arsenic mobility in South Florida golf courses, *Sci. Total Environ.* 291, 123-134.
33. Yong Cai, 2001. Large volume injection for gas chromatography, In *Encyclopedia of Chromatography*, Editor: Jack Cazes, Marcel Dekker, New York, 2001, pp. 471-473.
34. Yong Cai, and Weihua Zhang, 2001. Gas chromatography for speciation and analysis of metals and organometallics, In *Encyclopedia of Chromatography*, Editor: Jack Cazes, Marcel Dekker, New York, 2001, pp. 518-521.
35. James W. Fourqurean, and Yong Cai, 2001. Arsenic and phosphorous in seagrass from the coast of the Gulf of Mexico, *Aquatic Botany*. 71, 247-258.
36. L.Q. Ma, K.M. Komar, C. Tu, W. Zhang, and Y. Cai, and E.D. Kennelley, 2001. A fern that hyperaccumulates arsenic, *Nature*. 409, 579.
37. R. Irizarry, J. Moore, and Yong Cai, 2001. Atomic fluorescence determination of selenium using hydride generation technique, *Intern. J. Environ. Anal. Chem.* 79, 97-109.

38. Yong Cai, 2000. Atomic Fluorescence in Environmental Analysis, *In Encyclopedia of Analytical Chemistry: Instrumentation and Applications*, Editor-in-chief, R.A. Meyers, John Wiley & Sons Ltd., 2000, pp. 2270-2292.
39. Yong Cai, M. Georgiadis, and J.D. Fourqurean, 2000. Determination of arsenic in seagrass using inductively coupled plasma mass spectrometry, *Spectrochimica Acta, Part B*. 55, 1411-1422.
40. Yong Cai, Sugunya Monsalud, K. Furton, 2000. Determination of methylmercury and ethylmercury using GC/AFS following aqueous derivatization with sodium tetraphenylborate, *Chromatographia*. 52, 82-86.
41. Yong Cai, Sugunya Monsalud, Rudolf Jaffe and Ron Jones, 2000. Gas chromatographic determination of organomercury following aqueous derivatization with sodium tetraethyl borate and sodium tetraphenyl borate: Comparative study of gas chromatography coupled with atomic fluorescence spectrometry atomic emission. *J. Chromatogr. A*. 876, 147-155.
42. Yong Cai, 2000. Speciation and analysis of mercury, arsenic, and selenium by atomic fluorescence spectrometry, *Trends in Anal. Chem.* 19, 62-66.
43. M.O. Andreae, W. Elbert, Yong Cai, and T.W. Andreae, 1999. Non-seasalt sulfate, methanesulfonate, and nitrate aerosol concentrations and size distributions at Cape Grim, Tasmania, *J. Geophysical Research*. 104, 21,695-21,706.
44. A.M.M. de Bettencourt, M.O. Andreae, Yong. Cai, M.L. Gomes, L. Schebek, L.F. Vilas, and S. Rapsomanikis, 1999. Organotin speciation in the Tagus estuarine ecosystem. *Aquatic Ecology*. 33, 271-280.
45. Yong Cai, M. Abalos, and J.M. Bayona, 1998. Comprehensive evaluation of Complexing Agents and Modifier Effects on the SFE of Native Phenyl and Butyltins from Sediment, *Applied Organomet. Chem.* 12, 577-584.
46. Yong Cai, Rudolf Jaffé, and Ronald Jones, 1999. Interaction of Mercury with Dissolved Organic Carbon/Colloids in the Everglades Surface Water, *Applied Geochemistry*. 14, 395-407.
47. Yong Cai, 1999. A simple model for improvement of accuracy in size distribution measurements of dissolved organic carbon in natural waters using ultrafiltration technique, *Water Research*. 33, 3056-3060.
48. Yong Cai, Sugunya Monsalud, Kenneth G. Furton, Rudolf Jaffe and Ron Jones, 1998. Determination of methylmercury in fish and aqueous samples using solid-phase microextraction followed by gas chromatography-atomic fluorescence spectrometry, *Applied Organomet. Chem.* 12, 565-569.
49. Yong Cai, Guocai, Tang, Rudolf Jaffé, and Ronald Jones, 1997. Evaluation of Some Isolation Methods for Organomercury Determination in Soil and Fish Samples by Capillary Gas Chromatography-Atomic Fluorescence Spectrometry, *Intern. J. Environ. Anal. Chem.* 68, 331-345.
50. Yong Cai, Rudolf Jaffé, and Ronald Jones, 1997. Ethylmercury in the Soils and Sediments of the Florida Everglades, *Environ. Sci. Technol.*, 1997, 31, 302-305.
51. Rudolf Jaffé, Yong Cai, Jennifer West-Thomas, Mario Morales, and Ronald Jones, 1997. On the Occurrence of Methylmercury in Lake Valencia, Venezuela, *Bull. Environ. Cont. Toxicol.* 59, 99-105.
52. Yong Cai, Rudolf Jaffé, Azaam Alli, and Ronald Jones, 1996. Determination of Organomercury Compounds in Natural Waters by Solid-Phase Extraction with

- Sulfhydryl Cotton Fiber and Capillary Gas Chromatography-Atomic Fluorescence Spectrometry Detection. *Anal. Chim. Acta.* 334, 251-259.
53. Yong Cai and J.M. Bayona, 1995. Speciation of Mercury in Fish and River Water Samples Using in situ Sodium Tetraethylborate Derivatization Followed by Solid-Phase Microextraction and Gas Chromatography-Mass Spectrometry, *J. Chromatography A.* 696, 113-122.
  54. Yong Cai, M. Cabanes, J.L Fernandez Turiel, M. Abalos, and J.M. Bayona, 1995. On-Line Preconcentration of Selenium (IV) and Selenium (VI) in Aqueous Matrices followed by Liquid Chromatography-Inductivity Coupled Plasma Mass Spectrometry determination, *Anal. Chim. Acta.* 314, 183-192.
  55. Yolanda Morcillo, Yong Cai, and J.M. Bayona, 1995. Rapid Determination of methyltin Compounds in Aqueous Samples Using Solid Phase Microextraction and Capillary Gas Chromatography Following in situ Derivatization with Tetraethylborate, *J. High Resolution Chromatography.* 18, 767-770.
  56. Shugui Dai, Guolan Huang, and Yong Cai, 1995. Occurrence of Butyltin Compounds in Tianjin and Dalian Harbors of China, *Water Qual. Res. J. Canada.* 33-38.
  57. Yong Cai and J.M. Bayona, 1995. 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.* 33, 89-97.
  58. Yong Cai, Spyridon Rapsomanikis, and M.O. Andreae, 1994. Determination of Butyltin Compounds in Sediments Using An Improved Aqueous Ethylation Method, *Talanta.* 41. 589-594.
  59. J.M. Bayona and Yong Cai, 1994. The Role of Supercritical Fluid Extraction and Chromatography in Organotin Speciation Studies, *Trends in Anal. Chem.* 13, 327-332.
  60. Yong Cai, R. Alzaga, and J.M. Bayona, 1994. In Situ Derivatization and Supercritical Fluid Extraction for the Simultaneous Determination of Butyl and Phenyltin Compounds in Sediment, *Anal. Chem.* 66, 1161-1167.
  61. Yong Cai, Spyridon Rapsomanikis, and M.O. Andreae, 1993. Analysis of Butyltin Compounds in Sediment Samples by GC-AAS After in situ Derivatization with NaBEt<sub>4</sub>, *J. Anal. At. Spectrom.* 8, 119-125.
  62. Yong Cai, Spyridon Rapsomanikis, and M.O. Andreae, 1993. Determination of Butyltin Compounds in Sediments Using GC-AAS. Comparison of NaBH<sub>4</sub> and NaBEt<sub>4</sub> Derivatization Methods, *Anal. Chim. Acta.* 274, 243-251.
  63. Shugui Dai, Guolan Huang, and Yong Cai, 1993. Absorption Behavior of Dimethyltin from Seawater Matrix onto the Suspended Particulate Matters in Tianjin Harbor, *Environ. Pollution.* 82, 217-221.
  64. Guolan Huang, Yong Cai, Weihua Zhang, and Hongxia Lei, 1993. Determination of Butyltin Compounds in Water with GC-AAS Combination Technique, *Acta Scientiarum Naturalium Universitatis Nankaiensis.* 4, 23-28.
  65. Yong Cai, Spyridon Rapsomanikis, and M.O. Andreae, 1992. Efficiency of Tributyltin Extraction from Rhine River Sediment, *Mikrochim. Acta.* 109, 67.
  66. Shugui Dai, Guolan Huang, and Yong Cai. 1989. A Study of Methyltin Compounds in Tianjin Harbor, *Chinese J. Environmental Science.* 9(3), 201-205.

67. Shugui Dai, Guolan Huang, and Yong Cai, 1989. A Study of Methylation of Inorganic tin by Iodomethane in an Aquatic Environment with  $^{13}\text{C}$  Carbon Isotope Tracer Technique, *Applied Organometallic Chemistry*. 3, 115-120.
68. Shugui Dai, Guolan Huang, and Yong Cai, 1989. The Methylation of Inorganic Tin by Humic Materials in an Aquatic Environment, *Applied Organometallic Chemistry*. 3, 437-441.
69. Shugui Dai, Guolan Huang, and Yong Cai, 1988. Speciation of Organometallic Compounds in the Environment, *Heavy Metals in the Environment*. 217-221, Science Press.
70. Shugui Dai, Guolan Huang, and Yong Cai, 1987. Alkylation of Metals in the Environment, *Environmental Science*. 8(6), 2-6.
71. Shugui Dai, Guolan Huang, and Yong Cai, 1987. Speciation of Methyltin Compounds in Aquatic Environment, *Environmental Monitoring in China*. 3(6), 1-4.
72. Liansheng Liu, Shihuai Zheng, Zhengbin Zhang, Diyi Zhou, Yong Cai and Gang Pan, 1984. An Interfacial Stepwise Ion Exchange Isotherm of Zinc Liquid-Solid Partitioning on d-MnO<sub>2</sub>, and g-MnOOH and Manganite in Seawater, *Journal of Shandong College of Oceanology*. 14(3), 31-37.