

HUEY-MING HWANG, PHD

Refereed Publications (2000-present; *Correspondence author; ^d: Ph.D. student; ^m: MS students; ^u: Undergraduate student)

1. Hu, X., S. Cook^d, P. Wang^d, and **H.-M. Hwang***. 2009. *In vitro* evaluation of cytotoxicity of engineered metal oxide nanoparticles. 2009. Science of the Total Environment. 407: 3070-3072.
2. Hu, X., P. Wang^d, **H.-M. Hwang***. "Oxidation of anthracene by immobilized laccase from *Trametes versicolor*". 2009. Accepted for Publication. Bioresource Technology.
3. Zhao, X., and **H.-M. Hwang***. 2009. A study of the degradation of organophosphorus pesticides in river waters and the identification of their degradation products with chromatography coupled with mass spectrometry. Arch. Environ. Contam.Toxicol. 56: 646-653.
4. Wang, P^d., X. Hu, S. Cook^d, and **H.-M. Hwang*** 2009. Influence of silica derived nano-supporters on cellobiase after immobilization. Appl. Biochem. Biotechnol. In Press. DOI 10.1007/s12010-008-8321-1.
5. Wang^d, P., X. Hu, S. Cook^d, M. Begonia, K.S. Lee, and **H.-M. Hwang***. 2008. Effect of culture conditions on the production of ligninolytic enzymes by white rot fungi *Phanerochaete chrysosporium* (ATCC 20696) and separation of its lignin peroxidase. World J. Microbiol. Biotechnol. 24:2205-2212.
6. Wang^{d*}, P., X. Jiang, Y. Jiang, X. Hu, and **H.-M. Hwang**. 2008. Optimization of fermentation medium and conditions for mycelial growth and water-soluble exopolysaccharides production by *Isaria farinosa* B05". Prep. Biochem. Biotechnol. 38: 294-307.
7. Aker^d, W.G., X. Hu, P. Wang^d, and **H.-M. Hwang***. 2008. Comparing the relative toxicity of malathion and malaoxon in blue catfish *Ictalurus furcatus*. Environ. Toxicol. 23: 548-554.
8. Zhang,Y., J. Gao, J. Ntoni^d, M.F.T. Begonia, K.S. Lee, and **H.-M. Hwang***. 2008. Enhancing ethanol fermentability of an artificial acid hydrolyzate with anion exchange resin treatment. Prep. Biochem. Biotechnol.. 38: 191-200.
9. Zhao, X., Y. Zhang, X. Hu, and **H.M. Hwang***. 2007. Enhanced bio-mineralization by riboflavin photosensitization and its significance to detoxification of benzo[a]pyrene. Bull. Environ. Contam.Toxicol.. 79: 319-322.
10. **Hwang***, **H.M.**, X. Hu, and X. Zhao. 2007. Enhanced bioremediation of polycyclic aromatic hydrocarbons by environmental friendly techniques. J. Environ. Sci. Health, part c- Environ. Carcinogenesis Ecotoxicol. Rev. 25: 313-352.

11. Zhao*, X., Y. Lu, D.R. Philips, **H.-M. Hwang**, and I.R. Hardin. 2007. Study of biodegradation products from azo dyes in fungal degradation by capillary electrophoresis/electrospray mass spectrometry. *J. Chromatogr A*. 1159: 217-224.
12. Yang, X., X. Zhao, and **H.-M. Hwang***. 2007. Phototransformation of 2,4,6-trinitrotoluene: Sensitized by riboflavin under different irradiation spectral range. *J. Hazard. Mater.* 143: 271-276.
13. Hu, X., Y. Zhang, X. Zhao, and **H.-M. Hwang***. 2007. Biodegradation of benzo[a]pyrene with immobilized laccase: genotoxicity of the products in HaCaT and A3 cells. *Environ. Mol. Mutagen.* 48: 106-113.
14. Hu, X., X. Zhao, and **H.-M. Hwang***. 2007. Comparative study of immobilized *Trametes versicolor* laccase on nanoparticles and kaolinite. *Chemosphere*. 66: 1618-1626.
15. Gao, J., Y. Zhang, J. Ntoni^d, M.F.T., Begonia, K.S. Lee, L. Hicks^u, W.W. Hwang^u, and **H.-M. Hwang***. 2006. Effects of Selected By-products of an Acid Hydrolyzate on Cell Growth and Ethanol Fermentation by *Saccharomyces cerevisiae*. *J. Mississippi Acad. Sci.* 51(4): 220-230.
16. Zheng, Y., and **H.-M. Hwang***. 2006. Effects of temperature and microorganisms on malathion transformation in river water. *Bull. Environ. Contam. Toxicol.* 76 (4): 712-719.
17. Hu*, X., X. Jiang, and **H. Hwang**. 2006. Purification and characterization of an alginate lyase from marine bacterium *Vibrio* sp. mutant strain 510-64. *Curr. Microbiol.* 53(2): 135-140.
18. Zhang, Y., **H.-M. Hwang***, and S. Ekunwe. 2006. Comparing cytotoxicity and genotoxicity in HaCat cells caused by 6-aminochrysene and 5,6-chrysenequinone under UVA irradiation. *Environ. Toxicol. Chem.* 25: 1920-1926.
19. Zhao*, X., I.R. Hardin, and **H.-M. Hwang**. 2006. Biodegradation of a model azo dye by white rot fungus *Pleurotus ostreatus*. *Int. Biodeter. Biodegr.* 57: 1-6.
20. Zhao, X., X. Hu, and **H.M. Hwang***. 2006. Effects of riboflavin on the phototransformation of benzo[a]pyrene. *Chemosphere*. 63: 1116-1123.
21. Hu*, X., X. Jiang, J. Gong, **H.-M. Hwang**, Y. Liu, and H. Guan. 2005. Antibacterial activity of lyase-depolymerized products of alginate. *J. Appl. Phycol.* 17(1): 57-60.
22. Zhang, Y., **H.-M. Hwang***, M.F.T. Begonia, K. Lee, and K. Zeng^d. 2005. Effect of an acid hydrolyzate of southern pine softwood on the growth and fermentation ability of yeast *Saccharomyces cerevisiae*. *J. Mississippi Acad. Sci.* 50 (#2): 138-143.

23. Quan, Z., Y. Song, G. Peters^u, M. Shenwu^u, Y. Sheng, **H.-M. Hwang**, and Y.-M. Liu*. 2005. Chiral CE separation of dopamine derived neurotoxins. *Anal. Sci.* 21(2): 115-119.
24. **Hwang***, **H.-M.**, N. McArthur^m, C. Ochs, B. Libman^d. 2005. Assessing interactions of multiple agrichemicals by using bacterial assemblages in a wetland mesocosm system. *Int. J. Environ. Res. Public Health* 2(2): 328-334.
25. Hunter^m, R.D., S.I. N. Ekunwe*, D.E. Dodor, **H.-M. Hwang**, and L. Ekunwe. 2005. *Bacillus subtilis* is a potential degrader of pyrene and benzo[a]pyrene. *Int. J. Environ. Res. Public Health* 2(2): 267-271.
26. Ekunwe*, S.I.N., R.D. Hunter, and **H.-M. Hwang**. 2005. Ultraviolet radiation increases the toxicity of pyrene, 1-aminopyrene and 1-hydroxypyrene to human keratinocytes. *Int. J. Environ. Res. Public Health* 2(1): 58-62.
27. Zeng^d, K., **H.-M. Hwang***, Y. Zhang, and S. Cook^d. 2004. Assessing cytotoxicity of photosensitized transformation products of 2,4,6-trinitrotoluene (TNT) and atrazine with freshwater microbial assemblages. *Environ. Toxicol.* 19: 490-496.
28. Wang, L., J. Yan, S. Wang^d, H. Cohly, P.P. Fu, **H.-M. Hwang**, and H. Yu*. 2004. Phototoxicity and DNA damage induced by the cosmetic ingredient chemical azulene in human Jurkat T-cells. *Mutat. Res.* 562: 143-150.
29. Dodor*, D.E., **H.-M. Hwang**, and S.I.N. Ekunwe. 2004. Oxidation of anthracene and benzo[a]pyrene by immobilized laccase from *Trametes versicolor*. *Enzymes Microbial Technol.* 35(2/3): 210-217.
30. Zheng, B., **H.-M. Hwang***, H. Yu, and S. Ekunwe. 2004. DNA damage produced in HaCaT Cells by combined fluoranthene exposure and ultraviolet A irradiation. 44(2), *Environmen.Mol. Mutagen.* 44(2): 151-155.
31. Hu*, X., X. Jiang, **H.-M. Hwang**, S. Liu^m, and H. Guan. 2004. Antitumour activities of alginate-derived oligosaccharides and their sulfated substitution derivatives. *Eur. J. Phycol.* 39(1): 67-71.
32. Zeng^d, K., **H.-M. Hwang***, S. Dong, X. Shi^m, K. Wilson^u, J. Green^u, Y. Jiao, and H. Yu. 2004. Photochemical transformation and phototoxicity of 1-aminopyrene. *Environ. Toxicol. Chem.* 23(6): 1400-1407.
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34. Liu^m*, S., X. Jiang, X. Hu, J. Gong, **H.-M. Hwang**, and K. Mai. 2004. Effects of temperature on non-specific immune parameters in two scallop species: *Argopecten*

irradiations (Lamarck 1819) and *Chlamys farreri* (Jones & Preston 1904). *Aquac. Res.* 35: 678-682.

35. **Hwang*, H.-M.**, A.L. Balarezo^d, V.N. Jones^u, and H. Yu. 2004. Effect of river humic acid on 1-aminopyrene ecotoxicity in a dynamic solar photolysis process. *Bull. Environ. Contam. Toxicol.* 72(5): 1059-1066.
36. Hu*, X., X. Jiang^m, **H.-M. Hwang**, S. Liu, and H. Guan. 2004. Promotive effects of alginate-derived oligosaccharide on maize seed germination. *J. Appl. Phycol.* 16: 73-76.
37. Zeng^d, K., **H.-M. Hwang***, Y. Zhang, and H. Yu. 2003. Identification of 6-aminochrysene photoproducts and study of the effect of a humic acid and riboflavin on its photolysis. *J. Photochem. Photobiol. B: Biol.* 72: 95-100.
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39. Balarezo^d, A.L., V.N. Jones^u, H. Yu, and **H.-M. Hwang***. 2002. Influence of humic acid on 1-aminopyrene ecotoxicity during solar photolysis process. *Int. J. Mol. Sci.* 3: 1133-1144.
40. Wu, Y.-S., G.-C. Fang, J. Moody, L.S.V. Tungeln, P.P. Fu*, **H.-M. Hwang**, and H. Yu. 2002. In vitro metabolism of dibenzo[*a,l*]pyrene, 2-chlorodibenzo[*a,l*]pyrene and 10-chlorodibenzo[*a,l*]pyrene - effects of chloro substitution. *Int. J. Mol. Sci.* 3: 1008-1018.
41. Zeng^d, K., **H.-M. Hwang***, and H. Yu. 2002. Effect of dissolved humic substances on the photochemical degradation rate of 1-aminopyrene and atrazine. *Int. J. Mol. Sci.* 3: 1048-1057.
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43. Dong, S., H. Yu*, **H.-M. Hwang**, and P.P. Fu. 2002. Effects of histidine on light-induced DNA single-strand cleavage by selected polycyclic aromatic hydrocarbons. *J. Polycycl. Aromat. Comp.* 22/3-4: 451-458.
44. Zeng^d, K., **H.-M. Hwnag***, and H. Yu. 2002. Identification of 1-hydroxypyrene photoproducts and study of the effect of humic substances on its photolysis. *J. Polycycl. Aromat. Comp.* 22/3-4: 459-467.
45. **Hwang*, H.-M.**, K. Zeng^d, S. Dong, and H. Yu. 2002. A study of photoinduced toxicity of 1-aminopyrene (1-AP) to microbial assemblages and the effect of humic substances (HS) on 1-AP photolysis. *J. Polycycl. Aromat. Comp.* 22/3-4: 611-620

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47. Cui, H., **H.-M. Hwang***, K. Zeng^d, H. Glover^m, H. Yu, and Y. Liu. 2002. Riboflavin-photosensitized degradation of atrazine in a freshwater environment. *Chemosphere* 47/9: 991-999.
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50. Cui, H., **H.-M. Hwang***, S. Cook^m, and K. Zeng^d. 2001. Effect of photosensitizer riboflavin on the fate of 2,4,6-trinitrotoluene in a freshwater environment. *Chemosphere*, 44/4: 621-625.
51. Zappi*, M., K. White^d, **H.-M. Hwang**, R. Bajpai, and M. Qasim. 2000. The fate of hydrogen peroxide as an oxygen source for bioremediation activities within saturated aquifer systems. *J. Air Waste Manage.* 50: 1818-1830.
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54. Dong, S., **H.-M. Hwang**, C. Harrison^u, L. Holloway^m, X. Shi^m, and H. Yu*. 2000. UVA light-induced DNA cleavage by selected polycyclic aromatic hydrocarbons. *Bull. Environ. Contam. Toxicol.* 64: 467-474.