

Peer Reviewed Publications 2009

Aouadi, S.M.; Paudel, Y.; Simonson, J.; **Ge, Q.**; Kohli, P.; Muratore, C. & Voevodin, A.A. (2009) Tribological Investigation of Adaptive Mo₂N/MoS₂/Ag Coatings with High Sulfur Content, *Surface and Coatings Technology*, 203, 1304-1309.

Barlow, M.J., Whiting, N., Nikolaou, P., Eschmann, N.A., Mair, R., **Goodson, B.M.** (2009). "A New Spin Exchange Optical Pumping (SEOP) Modality for Hyperpolarized ¹²⁹Xe Production and Use in Porous Media." *Diffusion Fundamentals*, 10, 116.

Brennan, A.A., Harwood, A.D., You, J., Landrum, P.F., and **Lydy, M.J.** (2009) Degradation of fipronil in anaerobic sediments and the effect on porewater concentrations. *Chemosphere*. 77: 22-28.

Brennan, A.A., You, J. and **Lydy, M. J.** (2009) Comparison of cleanup methods for fipronil and its degradation products in sediments extracts. *Talanta*.79: 1408-1413.

Chaffee, K.E., Fogarty, H.A., Brotin, T., **Goodson, B.M.**, Dutasta, J.-P. (2009) "Encapsulation of small gas molecules by cryptophane-111 in organic solution. Part I: Size- and shape-selective complexation of simple hydrocarbons." *J. Phys. Chem. A.*, 113, 13675-13684

Cheng, L. Mei, D. & **Ge, Q.** (2009) Origin of Support Effects on the Reactivity of a Ceria Cluster, *J. Phys. Chem. C*. 113, 18296-18303.

Davis, Jeremy E.; **Hou, Yuqing**; Meyers, Cal Y.; Banz, William J. (2009). Potential clinical applications of (-), (+) and (±)-Z-bisdehydrodoisynolic acids in metabolic disorders. *Recent Patents on Endocrine, Metabolic & Immune Drug Discovery* 3, 173-178.

Ding Y., You, J., and **Lydy, M.J.** (2009) Analysis of pyrethroid insecticides in *Chironomus dilutus* using matrix solid phase dispersion extraction. *Bulletin of Environmental Contamination and Toxicology*. (83): 388-392.

Han, Y., Liu, C.-j. & **Ge, Q.** (2009) Effect of Pt Clusters on Methanol Adsorption and Dissociation over Perfect and Defective Anatase TiO₂(101) Surface, *J. Phys. Chem. C*. 113, 20674-20682.

Harwood, A.D., You, J. and **Lydy, M.J.** (2009) Temperature as a toxicity identification evaluation tool for pyrethroid insecticides: Toxicokinetic confirmation. *Environmental Toxicology and Chemistry*. 28 (5): 1051-1058.

Hintzen, E.P., **Lydy, M.J.** and Belden, J.B. (2009) Occurrence and potential toxicity of pyrethroids and other insecticides in bed sediments of urban streams in central Texas. *Environmental Pollution*. 157: 110-116.

Hou, Y., Meyers, C.Y., Akomeah, M. (2009). A Short, Economical Synthesis of 2-Methoxyestradiol, an Anticancer Agent in Clinical Trials. *Journal of Organic Chemistry*, 74, 6362-6364.

Lim, I-Im S.; Mott, D.; Engelhard, M.; Pan, Y.; Kamodia, S.; Luo, J.; Kjoki, P. N.; Zhou, S.; **Wang, L.**; Zhong, C.J. (2009). Interparticle chiral recognition of enantiomers: A nanoparticle-based regulation strategy. *Anal. Chem.* 81, 689-698.

Lin, C; Xu, T.; Yu, J.; **Ge, Q.** & Xiao, (2009) Z. Hydrogen Spillover Enhanced Hydriding Kinetics of Palladium-Doped Lithium Nitride to Lithium Imide, *J. Phys. Chem. C.* 113, 8513-8517.

Lin, T.; Zhang, W.; **Wang, L.** (2009). Theoretical calculation of separation factors for boron isotopic exchange between BF_3 and $\text{BF}_3 \cdot \text{C}_6\text{H}_5\text{OCH}_3$. *J. Phys. Chem. A* 113, 7267-7274.

Liu, J. & **Ge, Q.** (2009) Hydrogen interaction in Ti-doped LiBH_4 for hydrogen storage: A density functional analysis, *J. Chem. Theory Comput.* 5, 3079-3087.

Liu, J.; Han, Y. & **Ge, Q.** (2009) Effect of Doped Transition Metal on Reversible Hydrogen Release/Uptake from NaAlH_4 , *Chem. Eur. J.* 15, 1685-1695.

Logue, J. M., **Huff Hartz, K. E.**, Lambe. A. T., Donahue, N. M., Robinson, A. L. (2009). High time-resolved measurements of organic air toxics in different source regimes. *Atmospheric Environment*, 43, 6205-6217.

Mei, D.; **Ge Q.**; Szanyi, Y. & Peden C. H. F. (2009) A First-principles Analysis of NO_x Adsorption on Anhydrous $\gamma\text{-Al}_2\text{O}_3$ Surfaces, *J. Phys. Chem. C.* 113, 7779-7789.

Mei, D.; **Ge Q.**; Kwak; J. H., Kim, D. H.; Verrier, C.; Szanyi, Y. & Peden C. H. F. (2009) Characterization of surface and bulk nitrates of $\gamma\text{-Al}_2\text{O}_3$ -supported alkaline earth oxides using density functional theory, *PCCP*, 11, 3380-3389.

Nikolaou, P., Whiting, N., Eschmann, N.A., Chaffee, K.E., **Goodson, B.M.**, Barlow, M.J. (2009). "Generation of laser-polarized xenon using fiber-coupled laser-diode arrays narrowed with integrated volume holographic gratings." *J. Magn. Reson.*, 197, 249-254.

Pan, Y.; Liu, C.-j.; Wiltowski, T. & **Ge Q.** (2009) CO_2 adsorption and activation over $\gamma\text{-Al}_2\text{O}_3$ -supported transition metal dimers: A density functional study, *Catalysis Today*, 147, 68-76.

Sanghi, R., Shankaramakrishnan, N., **Dave, B.C.** (2009) "Fungal bioremediation of chromates: Conformational changes of biomass during sequestration, binding, and reduction of hexavalent chromium ions" *J. Hazardous Mater.* 169, 1074-1080.

Schuler, L.J., Landrum, P. F., Harwood, A.D., Tripp, E.M., **Lydy, M. J.** (2009) Joint toxicity of fluoranthene and pentachlorobenzene to *Hyalella azteca* and *Chironomus dilutus*. *Chemosphere*.77:399-403.

Trimble, A.J., Weston, D. P., Belden, J.B. and **Lydy, M.J.** (2009) Identification and evaluation of pyrethroid insecticide mixtures in urban sediments. *Environmental Toxicology and Chemistry.* 28 (8): 1687-1695.

Wang, D., Weston, D.P. and **Lydy, M. J. (2009)** Method development for the analysis of organophosphate and pyrethroid insecticides at low parts per trillion levels in water. *Talanta*. 78: 1345-1351.

Weston, D.P., You, J., Harwood, A.D. and **Lydy, M.J. (2009)** Whole sediment toxicity identification evaluation tools for pyrethroid insecticides: III Temperature manipulation. *Environmental Toxicology and Chemistry*. 28 (1): 173-180.

Weston D.P., Holmes, R.W and **Lydy, M.J. (2009)** Residential runoff as a source of pyrethroid pesticides in urban creeks. *Environmental Pollution*. 157: 287-294.

Weston, D.P., Lentz, R.D., Cahn, M.D. Ogle, R.S, Rothert, A.K. and **Lydy, M.J. (2009)** Toxicity of anionic polyacrylamide formulations when used for erosion control in agriculture. *Journal of Environmental Quality*. 38: 238-247.

Wong, V.-N.; Fernando, G.; Wagner, A.; Zhang, J.; **Kinsel, G.R.**; Zauscher, S.; **Dyer, D.J. (2009)** "Separation of Peptides with Polyionic Nanosponges for MALDI-MS Analysis", *Langmuir*, 25, 1459-1465.

Xu, Z.; Shi, X.; Li, J.; Lu, S.; **Wang, L. (2009)**. Artificial neural network method to construct potential energy surfaces for transition metal nanoparticles: Pt, Au, and Ag. *IEEE proceedings of 2009 Fifth International Conference on Natural Computation* 1, 86-90.

Yorisaki, T.; Tillekaratne, A.; **Ge, Q.**; Oshima, C.; Otani, S.; Trenary, M. **(2009)** Probing the Properties of the (111) and (100) Surfaces of LaB₆ through Infrared Spectroscopy of Adsorbed CO, *Surf. Sci.* 603, 3011-3020.

You, J., Brennan, A.A., and **Lydy, M.J. (2009)** Bioavailability and biotransformation of sediment-associated pyrethroid insecticides in *Lumbriculus variegatus*. *Chemosphere*. 75:1477-1482.

Book Chapters:

Lotufo G.R., M.J. Lydy, G.L. Rorrer, O. Cruz-Uribe, D.P Cheney. 2009. Bioconcentration, bioaccumulation and biotransformation of explosives and related compounds in aquatic organisms. In: *Ecotoxicology of Explosives*. Sunahara G.I., J.A. Hawari, G.R. Lotufo, R.G. Kuperman, editors. CRC Press. Boca Raton, FL. pp. 135-152.

Gato, W.E. and Means, J.C. Analyzing Effects Associated with Lead Exposure by Gene Expression. 2009. Verlag Dr Muller, Saarbruecken, Germany pp258.