

Advanced Food Systems

Faculty Research Unit

Recent Publications

Agana, B.A., Reeve, D., Orbell, J.D. (2011). Optimization of the operational parameters for a 50nm ZrO₂ ceramic membrane as applied to the ultrafiltration of post-electrodeposition rinse wastewater. *Desalination* 278 (1-3) , pp. 325-332

Amy Y.M. Au, Torben Hackl, Thomas R. Yeager, Scott B. Cohen, Harvey I. Pass, Curtis C. Harris, and Rodger Reddel (2011). Telomerase activity in plural malignant mesotheliomas. *Lung Cancer* 73: 283-288.

Antony, A., Low, J.H., Gray, S., Childress, A.E., Le-Clech, P., Leslie, G. (2011). Scale formation and control in high pressure membrane water treatment systems: A review. *Journal of Membrane Science* 383 (1-2) , pp. 1-16

Bigger, S.W. (2011). ChemKinetics: Fundamental chemical kinetics principles and analysis by computer simulation. *Journal of Chemical Education* 88 (2) , pp. 244

Cran, M. J. and Bigger, S. W. (2011). Studies on the properties and usage of biodegradable packaging materials. *Zhongguo Yinshua Yu Baozhuang Yanjiu* 3: 1-11.

Cran, M.J., Bigger, S.W., Gray, S.R. (2011). Degradation of polyamide reverse osmosis membranes in the presence of chloramine. *Desalination*. Article in Press

Cran, M.J., Gray, S.R., Scheirs, J., Bigger, S.W. (2011). Non-isothermal depolymerisation kinetics of poly(ethylene oxide). *Polymer Degradation and Stability* 96 (8) , pp. 1497-1502

Dissanayake, M., Liyanaarachchi, S. and T. Vasiljevic (2011). Functional properties of whey proteins microparticulated at low pH. *Journal of Dairy Science* (accepted Nov 2011).

Donkor, O. N., Ravikumar, M., Proudfoot, O., Day, S.L., Apostolopoulos, V., Paukovics, G., Vasiljevic, T., Nutt, S.L. and H. Gill (2011). Cytokine profile and induction of T helper type 17 and regulatory T cells by human peripheral mononuclear cells after microbial exposure. *Clinical and Experimental Immunology*. (accepted) doi:10.1111/j.1365-2249.2011.04496.x

Dumée, L., Campbell, J.L., Sears, K., Schütz, J., Finn, N., Duke, M., Gray, S. (2011). The impact of hydrophobic coating on the performance of carbon nanotube bucky-paper membranes in membrane distillation. *Desalination*. Article in Press

Dumée, L., Germain, V., Sears, K., Schütz, J., Finn, N., Duke, M., Cerneaux, S., (...), Gray, S. (2011). Enhanced durability and hydrophobicity of carbon nanotube bucky paper membranes in membrane distillation. *Journal of Membrane Science* 376 (1-2) , pp. 241-246

Feketeová, L., Yuriev, E., Orbell, J.D., Khairallah, G.N., O'Hair, R.A.J. (2011). Gas-phase formation and reactions of radical cations of guanosine, deoxyguanosine and their homodimers and heterodimers. *International Journal of Mass Spectrometry* 304 (2-3) , pp. 74-82

Gray, S.R., Dow, N., Orbell, J.D., Tran, T., Bolto, B.A. (2011). The significance of interactions between organic compounds on low pressure membrane fouling. *Water Science and Technology* 64 (3) , pp. 632-639

H.C. Deeth and N. Datta (2011) Heat treatment of milk: Ultra-high temperature treatment (UHT) Heating systems, In *Encyclopedia of Dairy Sciences (Second Edition)*, Pages 699-707

H.C. Deeth and N. Datta (2011) Non-thermal Technologies: General Aspects, *Encyclopedia of Dairy Sciences (Second Edition)*, Pages 725-731

H.C. Deeth and N. Datta (2011) Non-thermal technologies: Pulsed Electric Field Technology and Ultrasonication *Encyclopedia of Dairy Sciences (Second Edition)*, Pages 738-743

Hausmann, A., Sancio, P., Vasiljevic, T., Ponnampalam, E., Quispe-Chavez, N., Weeks, M. and M. Duke. (2011). Direct Contact Membrane Distillation of Dairy Process Streams. *Membranes*, 1, 48-58;

Hu, Y., Milne, N., Gray, S., Morris, G., Jin, W., Duke, M., Zhu, B. (2011). Combined TiO₂ membrane filtration and ozonation for efficient water treatment to enhance the reuse of wastewater. *Desalination and Water Treatment* 34 (1-3) , pp. 57-62

Kuorwel, K.K., Cran, M.J., Sonneveld, K., Miltz, J., Bigger, S.W.(2011). Essential Oils and Their Principal Constituents as Antimicrobial Agents for Synthetic Packaging Films. *Journal of Food Science* 76 (9) , pp. R164-R177

Kuorwel, K.K., Cran, M.J., Sonneveld, K., Miltz, J., Bigger, S.W. (2011). Antimicrobial Activity of Natural Agents Coated on Starch-Based Films against *Staphylococcus aureus*. *Journal of Food Science* 76 (8) , pp. M531-M537

Kuorwel, K.K., Cran, M.J., Sonneveld, K., Miltz, J., Bigger, S.W. (2011). Antimicrobial activity of natural agents against *Saccharomyces cerevisiae*. *Packaging Technology and Science* 24 (5) , pp. 299-307

Kuorwel, K.K., Cran, M.J., Sonneveld, K., Miltz, J., Bigger, S.W. (2011). Antimicrobial activity of biodegradable polysaccharide and protein-based films containing active agents. *Journal of Food Science* 76 (3) , pp. 90-102

L. Ramchandran and N. P. Shah (2011). Yogurt Can Beneficially Affect Blood Contributors of Cardiovascular Health Status in Hypertensive Rats. *Journal of Food Science*, 76: H131-H136.

Lai, C.Y., Groth, A., Gray, S., Duke, M. (2011). Investigation of the dispersion of nanoclays into PVDF for enhancement of physical membrane properties. *Desalination and Water Treatment* 34 (1-3) , pp. 251-256

N. Datta, and H.C. Deeth (2011) Non-thermal Technologies: High Pressure Processing *Encyclopedia of Dairy Sciences (Second Edition)*, Pages 732-737

O'Brien-Abraham, J., Duke, M., Lin, Y.S. (2011). Xylene Separation Performance of Composition-Gradient MFI Zeolite Membranes. *Membrane Science and Technology* 14 , pp. 195-212

Shu Sun, Hong Xu and Lawrence Ngeh. (2011) The Evaluation of Chinese Therapeutic Food for the Treatment of Moderate Dyslipidemia. *Evidence-Based Complementary and Alternative Medicine*. (In press)

Stockham, K., Paimin, R., Orbell, J.D., Adorno, P., Buddhadasa, S. (2011). Modes of handling Oxygen Radical Absorbance Capacity (ORAC) data and reporting values in product labelling. *Journal of Food Composition and Analysis* 24 (4-5) , pp. 686-691.

Suppakul, P., Sonneveld, K., Bigger, S.W., Miltz, J. (2011). Loss of AM additives from antimicrobial films during storage. *Journal of Food Engineering* 105 (2) , pp. 270-276

Suppakul, P., Sonneveld, K., Bigger, S.W., Miltz, J. (2011). Diffusion of linalool and methylchavicol from polyethylene-based antimicrobial packaging films. *LWT - Food Science and Technology* 44 (9) , pp. 1888-1893

Tomasula, P.M. , Mukhopadhyay, S., Datta, N., Porto-Fett, A., Call, J.E., Luchansky, J.B., Renye, J., Tunick, M. (2011). Pilot-scale crossflow-microfiltration and pasteurization to remove spores of *Bacillus anthracis* (Sterne) from milk. *Journal of Dairy Science*. 94(9), 4277-4291

Xie, Z., Dao, B., Hodgkin, J., Hoang, M., Hill, A., Gray, S. (2011). Synthesis and characterization of hybrid organic-inorganic materials based on sulphonated polyamideimide and silica. *Journal of Polymer Research* 18 (5) , pp. 965-973

Xie, Z., Hoang, M., Duong, T., Ng, D., Dao, B., Gray, S. (2011). Sol-gel derived poly(vinyl alcohol)/maleic acid/silica hybrid membrane for desalination by pervaporation. *Journal of Membrane Science* 383 (1-2) , pp. 96-103

Zhang, J., Gray, S., Li, J.-D. (2012). Modelling heat and mass transfers in DCMD using compressible membranes. *Journal of Membrane Science* 387-388 (1) , pp. 7-16

Zhu, B., Hu, Y., Kennedy, S., Milne, N., Morris, G., Jin, W., Gray, S., Duke, M. (2011). Dual function filtration and catalytic breakdown of organic pollutants in wastewater using ozonation with titania and alumina membranes. *Journal of Membrane Science* 378 (1-2) , pp. 61-72