

Biographical Information for Dr Mike Trefry

Dr Mike Trefry has a PhD in solid state and molecular physics from University of Western Australia, with post-doctoral experience at Cambridge University on theoretical aspects of infrared spectra of rare gas complexes and a period as Assistant Editor of *Chemical Physics Letters* in the early 1990s.



Mike first joined CSIRO in 1990, and is now Principal Research Scientist in Urban and Industrial Water theme of CSIRO Land and Water, studying subsurface hydrodynamics, contaminant transport and reaction phenomena. Areas of interest include surface water – groundwater interaction, transport in porous media and scientific computation. Mike is currently part of a multidisciplinary team researching methods for assessing and remediating soil and groundwater systems polluted by petroleum and chlorinated hydrocarbons, and has undertaken many reviews and consultancies for external organisations on topics including saline groundwater disposal schemes, landfill leachate migration, acid tailings disposal and coastal groundwater management.

Mike is Adjunct Senior Research Fellow at the School of Earth & Geographical Sciences at the University of Western Australia, is an Associate Editor of *Ground Water* and is active on several environmental and industrial advisory committees, including the Faculty Industry Advisory Board of the Faculty of Engineering, Computing and Mathematics, University of WA, and is a formal advisor to the Department of Defence. He is on the organizing committee of GQ07, the 6th International IAHS Groundwater Quality Conference. Mike has produced 26 journal papers, 30 conference publications, over 80 consultancy and technical reports, holds a US Patent and has supervised 8 student theses to completion.

Selected Journal Papers

- Trefry, M. G., “Periodic forcing in composite aquifers”, *Advances in Water Resources* **22** (6), 645-656, 1999.
- Trefry, M. G., “Analytical solutions for partitioned diffusion in laminates - II. Harmonic forcing conditions”, *Transport in Porous Media* **37** (2), 183-212, 1999.
- Townley, L. R. and Trefry, M. G., “Surface water-groundwater interaction near shallow circular lakes: Flow geometry in three dimensions”, *Water Resources Research* **36** (4), 935-949, 2000.
- Trefry, M. G., Öhman, J. and Davis, G. B., “A simple numerical approach for assessing coupled transport processes in partitioning systems”, *Applied Mathematical Modelling* **25** (6), 479-498, 2001.
- Trefry, M. G., Ruan, F. P. and McLaughlin, D., “Numerical simulations of pre-asymptotic transport in heterogeneous porous media: Departures from the Gaussian limit”, *Water Resources Research* **39**(3), Article W01063, 19 March 2003.
- Ferguson, S. H., Franzmann, P. D., Snape, I., Revil, A. T., Trefry, M. G. and Zappia, L. R., “Effects of temperature on mineralisation of petroleum in contaminated Antarctic terrestrial sediments”, *Chemosphere* **52**(6), 975-987, 2003.
- Trefry, M. G. and Bekele, E., “Structural characterization of an island aquifer via tidal methods”, *Water Resources Research* **40**(1), Article W01505, 8 January 2004.
- Davis, G. B., Rayner, J. L., Trefry, M. G., Fisher, S. J. and Patterson, B. M., “Measurement and modelling of temporal variations in hydrocarbon vapour behaviour in a layered soil profile”, *Vadose Zone Journal* **4**(2), 225-239, 2005.
- Trefry, M. G., Svensson, T. J. A. and Davis, G. B., “Hypoaigic influences on groundwater flux to a seasonally saline river” *Journal of Hydrology*, **335**(3-4), 330-353, 2007.