

***POLLUTION RESEARCH GROUP PUBLICATION LIST  
2001 TO 2002***

**Conference Proceedings:**

1. FRIEDRICH, E., BUCKLEY, C.A. and JACOBS, E.P., 'The Application of Life Cycle Assessment (LCA) for the Production of Potable Water - A Case Study of Membrane Technology', 4th WISA-MTD Symposium & Workshop 2001 on Membrane Science and Engineering, Fleurbaix, Stellenbosch, Western Cape, South Africa, 26-27 March 2001. (Talk)
2. WYNNE, G.\*, MAHARAJ, D. and BUCKLEY, C.A., 'Cleaner Production in the Textile Industry - Lessons from the Danish Experience', NATCON 2001, Holiday Inn Elangeni. Durban, South Africa, 29-30 March 2001. (Paper)
3. BROUCKAERT, C.J. HANEKOM, D.\*, WOODHOUSE, C.\* and BUCKLEY, C.A., 'Optimal Location of a Membrane Plant in a Power Station', Eskom International Conference on Power Plant Chemistry and Water Treatment, Eskom Conference Centre, Midrand, South Africa, 3-5 April 2001. (Paper)
4. BUCKLEY, C.A., BROUCKAERT, C.J. and GIANADDA, P., 'Water Pinch Analysis : Minimisation of Water and Wastewater in the Process Industry', European Commission COST 624 (European Co-operation in the Field of Scientific and Technical Research) "Optimal Management of Wastewater Systems", Working Group No. 5 Treatment Scenarios, Bologna, Italy, 26-27 April 2001. (Paper)
5. KOEFOED, M., 'Application of Cleaner Production Instruments in South Africa : A Case Study from Metal Finishing Industry', 3rd Annual Industrial Water Management & Treatment Symposium, Holiday Inn, Johannesburg, South Africa, pp 1-48, 23-24 May 2001. (Paper)
6. BELL, J., DAMA, P., GOVENDER, K.M., BUCKLEY, C.A. and STUCKEY, D.C.\*, 'Performance Characterisation and Microbial Populations Associated with the Start-up of a Laboratory-scale and a Pilot-scale Anaerobic Baffled Reactor', Part 2 : Proceedings of the 9th World Congress on Anaerobic Digestion 2001, Antwerpen, Belgium, pp. 389-392, 2-5 September 2001. (Poster)
7. NAIDOO, V., DU PREEZ, M., NDIMANDE, S., ODHAV, B.\* and BUCKLEY, C.A., 'Evaluation Protocol for High Strength/Toxic Organic Liquid Industrial Effluents Discharged to Anaerobic Digesters at Wastewater Treatment Plants', Part 2 : Proceedings of the 9th World Congress on Anaerobic Digestion 2001, Antwerpen, Belgium, pp. 289-293, 2-5 September 2001. (Poster)
8. DAMA, P., BELL, J., FOXON, K., NAIDOO, V., BROUCKAERT, C.J., BUCKLEY, C.A. and STUCKEY, D.\*, 'The Anaerobic Baffled Reactor for the Treatment of Domestic Wastewater in Dense Peri-urban Communities', Part 2 : Proceedings of the 9th World Congress on Anaerobic Digestion 2001, Antwerpen, Belgium, 385-388, 2-5 September 2001. (Poster)
9. DAMA, P., GOVENDER, K., HUANG, J., FOXON, K., BELL, J., BROUCKAERT, C.J., BUCKLEY, C.A., NAIDOO, V. and STUCKEY, D.\*, 'Flow Patterns in an Anaerobic Baffled Reactor', Part 1 : Proceedings of the 9th World Congress on Anaerobic Digestion 2001, Antwerpen, Belgium, 793-798, 2-5 September 2001. (Paper)
10. FRIEDRICH, E. and BUCKLEY, C.A., 'Life-Cycle Assessment as an Environmental Assessment Tool - A South African Case Study for the Production of Potable Water', Proceedings, International Association for Impact Assessment (IAIASa) on Sustainable Relationships for a Sustainable Environment, Greenway Woods Country Estate, White River, Mpumalanga, South Africa, pp. 137-140, 8-10 October 2001. (Paper)
11. NAIDOO, V., DU PREEZ, M., RAKGOTHO, T., ODHAV, B.\* and BUCKLEY, C.A., 'Toxicity and Biodegradability of High Strength/Toxic Organic Liquid Industrial Effluents and Hazardous Landfill Leachates', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 204-212, 29-31 October 2001. (Paper)
12. HUANG, T-H., BROUCKAERT, C.J., DOCRAT, M.\*, PRYOR, M.\* and BUCKLEY, C.A., 'A Computational Fluid Dynamics and Experimental Study of an Ozone Contactor', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 498-507, 29-31 October 2001. (Paper)
13. FRIEDRICH, E. and BUCKLEY, C.A., 'Life Cycle Assessment as an Environmental Management Tool in the Production of Potable Water', Proceedings Volume 2, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 185-194, 29-31 October 2001. (Paper)

14. GIANADDA, P., BROUCKAERT, C.J., SAYER, R.\* and BUCKLEY, C.A., 'The Application of Pinch Analysis to Water, Regent and Effluent Management in a Chlor-Alkali Facility', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 743-753, 29-31 October 2001. (Paper)
15. FOXON, K.M., BROUCKAERT, C.J., BUCKLEY, C.A. and ROZZI, A\*, 'Denitrification Activity Measurements Using An Anoxic Titration (pHstat) Bioassay', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 277-285, 29-31 October 2001. (Paper)
16. FOXON, K.M., DAMA, P., BROUCKAERT, C.J. and BUCKLEY, C.A., 'Design Considerations for the Implementation of an Anaerobic Baffled Reactor in Low-income Settlements in Kwa-Zulu Natal', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 644-655, 29-31 October 2001. (Paper)
17. DAMA, P., BELL, J., FOXON, K.M, BROUCKAERT, C.J., HUANG, T., BUCKLEY, C.A., NAIDOO, V., and STUCKEY, D.\*, 'Pilot-scale Study of an Anaerobic Baffled Reactor for the Treatment of Domestic Wastewater', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 656-664, 29-31 October 2001. (Paper)
18. BARCLAY, S.J. and BUCKLEY, C.A., 'Promoting Sustainable Industry Through Waste Minimization Club', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 93-103, 29-31 October 2001. (Paper)
19. PILLAY, S.D., FRIEDRICH, E. and BUCKLEY, C.A, 'Life Cycle Assessment of an Industrial Water Recycling Plant', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 104-110, 29-31 October 2001. (Paper)
20. BISCOS, C., MULHOLLAND, M., LE LANN, M-V.\*, BUCKLEY, C.A., BROUCKAERT, C.J., BAILEY, R. and ROUSTAN, M.\*, 'Optimal Operation of a Potable Water Distribution Network', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 72-83, 29-31 October 2001. (Paper)
21. SOUKOP, M.B., PRESTON-WHYTE, R.A., BARCLAY S.J. and BUCKLEY, C.A., 'Pathways of Change in the Management of Waste Minimisation', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 736-742, 29-31 October 2001. (Paper)
22. PASTRE, A., MULHOLLAND, M., BROUCKAERT, C.J., BUCKLEY, C.A., LE LANN, M.-V\*, ROUSTAN, M.\*, NAIDOO, D. And MABEER, V., 'Modelling and Control of Potable Water Chlorination', Proceedings Volume 1, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 237-248, 29-31 October 2001. (Paper)
23. BUCKLEY, C.A., and KOEFOED, M.\*, 'Environmental Instruments in Technology Transfer : A Case Study from South African Metal Finishing Industry', Proceedings Volume 2, The International Water Association Conference on Water and Wastewater Management for Developing Countries, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 19-29, 29-31 October 2001. (Paper)
24. UJANG, Z. And BUCKLEY, C.A., 'Water and Wastewater in Developing Countries : Present Reality and Strategy for the Future', International Water Association Conference on Water and Wastewater Management for Developing Countries, Kuala Lumpur, Malaysia, 27 October 2001. (Keynote paper)
25. BUCKLEY, C.A., 'Case Study I', The International Water Association Conference on Water and Wastewater Management for Developing Countries, Kuala Lumpur, Malaysia, 27 October 2001. (Workshop)
26. BUCKLEY, C.A., 'Cleaner Production - Concept and Procedure', International Water Association Conference on Water and Wastewater Management for Developing Countries, Kuala Lumpur, Malaysia, 27 October 2001. (Workshop)

**Publications:**

1. BARCLAY, S.J. And BUCKLEY, C.A., 'An Update on Waste Minimisation Clubs in South Africa - R18 m Saved', SA Water Bulletin, pp. 9-10, July/August 2001.
2. PLUMB, J.J.\*, BELL J. And STUCKEY, D.C.\*, 'Microbial Populations Associated with Treatment of an Industrial Dye Effluent in an Anaerobic Baffled Reactor', Applied and Environmental Microbiology, **67**, pp. 3226-3235, 2001.
3. VORENBERG, D., LETCHER, T.M., PHILLIPS, L., BUCKLEY, C.A. And RAMJUGERNATH, D., 'Environmental Fate Modelling via a Thermodynamic Approach', Chemical Technology, pp. 13-16, Nov/Dec 2001.
4. NAIDOO, V., DU PREEZ, M., RAKGOTHO, T., ODHAV, B.\* and BUCKLEY, C.A., 'Toxicity and Biodegradability of High Strength/Toxic Organic Liquid Industrial Effluents and Hazardous Landfill Leachates', Water Science & Technology, **46** (9), pp. 163-169, October 2002, ISBN 1843394286.
5. HUANG, T-H., BROUCKAERT, C.J., DOCRAT, M.\*, PRYOR, M.\* and BUCKLEY, C.A., 'A Computational Fluid Dynamics and Experimental Study of an Ozone Contactor', Water Science & Technology, **46** (9), pp. 87-93, October 2002, ISBN 1843394286.
6. FRIEDRICH, E. and BUCKLEY, CA., 'Life Cycle Assessment as an Environmental Management Tool in the Production of Potable Water', Water Science & Technology, **46** (9), pp. 29-36, October 2002, ISBN 1843394286.
7. GIANADDA, P., BROUCKAERT, C.J., SAYER, R.\* and BUCKLEY, C.A., 'The Application of Pinch Analysis to Water, Regent and Effluent Management in a Chlor-Alkali Facility', Water Science & Technology, **46** (9), pp. 21-28, October 2002, ISBN 1843394286.
8. FOXON, K.M., BROUCKAERT, C.J., BUCKLEY, C.A. and ROZZI, A\*, 'Denitrification Activity Measurements Using An Anoxic Titration (pHstat) Bioassay', Water Science & Technology, **46** (9), pp. 211-218, October 2002, ISBN 1843394286.
9. DAMA, P., BELL, J., FOXON, K.M, BROUCKAERT, C.J., HUANG, T., BUCKLEY, C.A., NAIDOO, V., and STUCKEY, D.\*, 'Pilot-scale Study of an Anaerobic Baffled Reactor for the Treatment of Domestic Wastewater', Water Science & Technology, **46** (9), pp. 263-720, October 2002, ISBN 1843394286.
10. BARCLAY, S.J. and BUCKLEY, C.A., 'Promoting Sustainable Industry Through Waste Minimization Clubs', Water Science & Technology, **46** (9), pp. 79-86, October 2002, ISBN 1843394286.
11. PILLAY, S.D., FRIEDRICH, E. and BUCKLEY, C.A, 'Life Cycle Assessment of an Industrial Water Recycling Plant', Water Science & Technology, **46** (9), pp. 55-62, October 2002, ISBN 1843394286.
12. BISCOS, C., MULHOLLAND, M., LE LANN, M-V.\*, BUCKLEY, C.A., BROUCKAERT, C.J., BAILEY, R. and ROUSTAN, M.\*, 'Optimal Operation of a Potable Water Distribution Network', Water Science & Technology, **46** (9), pp. 155-162, October 2002, ISBN 1843394286.
13. PASTRE, A., MULHOLLAND, M., BROUCKAERT, C.J., BUCKLEY, C.A., LE LANN, M.-V\*, ROUSTAN, M.\*, NAIDOO, D. And MABEER, V., 'Modelling and Control of Potable Water Chlorination', Water Science & Technology, **46** (9), pp. 103-108, October 2002, ISBN 1843394286.
14. UJANG, Z. And BUCKLEY, C.A., 'Water & Wastewater Management for Developing Countries : Present Reality and Strategy for the Future', Water Science & Technology, **46** (9), pp. 1-9, October 2002, ISBN 1843394286.

**Theses:**

1. MUDUNGE, R., 'Biological Treatment of Agro-industrial Effluent', Thesis MScEng , 2001.
2. KIBATA, N., 'Water and Sanitation in Developing Countries : Internet based Computing Model for Effective Delivery of Services', Thesis PhD, 2001. (Univ of Durban-Westville)
3. FRIEDRICH, E., 'The Use of Environmental Life Cycle Assessment for the Production of Potable Water', Thesis MScEng, 2002.
4. BELL, J., (nee Sacks) - 'Treatment of Dye Wastewaters in the Anaerobic Baffled Reactor and Characterisation of the Associated Microbial Populations', PhD Thesis, 2002.