

**INDIVIDUAL PUBLICATIONS FOR PROF CA BUCKLEY**

**FOR PERIOD 2001 TO 2005**

**Conference Proceedings :**

1. 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)
2. 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)
3. **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)
4. 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)
5. 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)
6. 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)
7. 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)
8. 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)
9. 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)
10. 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)

11. FRIEDRICH, E. and **BUCKLEY, CA.**, '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)
12. 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)
13. 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)
14. 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)
15. 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, Putra World Trade Centre, Kuala Lumpur, Malaysia, pp. 656-664, 29-31 October 2001. (Paper)
16. 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)
17. 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)
18. 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)
19. 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)
20. **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)

21. JOHN, W., **BUCKLEY, C.A.**, JACOBS, E.P. And SANDERSON, R.D., 'Structure and Properties of polyDADMAC for Water Purification', 5th Annual UNESCO School & IUPAC Conference on Macromolecules & Materials Science, University of Stellenbosch, Chemistry Department, Polymer Science Division, Stellenbosch, South Africa, 29th January to 6 February 2002. (Poster)
22. BARCLAY, S.J. and **BUCKLEY, C.A.**, 'Establishing and Managing Waste Minimisation Clubs in South Africa', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
23. 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)
24. BISCOS, C., MULHOLLAND, M., LE LANN, M.-V., **BUCKLEY, C.A.**, BROUCKAERT, C.J. and ROUSTAN, M., 'Water Distribution Network Optimisation', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
25. RAMSAMY, D., NAIDOO, V. and **BUCKLEY, C.A.**, 'Anaerobic Co-digestion of High Strength / Toxic Organic Liquid Effluents in a Continuously Stirred Reactor : Start-up', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
26. FOXON, K.M., **BUCKLEY, C.A.** and ROZZI, A., Denitrifying Activity Measurements Using an Anoxic Titration (pHstat) Bioassay', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
27. NAIDOO, D., NAIDOO, V. and **BUCKLEY, C.A.**, 'Determination of Toxicity of Industrial Effluents Using the Anita-Maia Titration Biosensor', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
28. NAIDOO, V., RAKGOTHO, T., DU PREEZ, M., OHDAV, B. and **BUCKLEY, C.A.**, 'Anaerobic Toxicity of Various High Strength / Toxic Organic Liquid Industrial Effluents', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
29. GIANADDA, P., BROUCKAERT, C.J., SAYER, R. and **BUCKLEY, C.A.**, 'Process Water Pinch Analysis Guides Water, Reagent and Effluent Management - Selected Case Studies from the Chlor-alkali Industry', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Paper)
30. SOUKOP, M.B., PRESTON-WHYTE, R.A., BARCLAY, S.J. and **BUCKLEY, C.A.**, 'Pathways of Change in the Management of Waste Minimisation', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
31. PILLAY, S.D., FRIEDRICH, E. and **BUCKLEY, C.A.**, 'Life Cycle Assessment of a Water Recycling Plant', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
32. VORENBERG, D., RAMJUGERNATH, D. and **BUCKLEY, C.A.**, 'Use of Overall Persistence and Fugacity Settling Time in Identification and Assessment of Water Impact Potential of Organic Chemicals', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
33. DAMA, P., BELL, J., FOXON, K.M. and **BUCKLEY, C.A.**, 'The Anaerobic Baffled Reactor for Sanitation in Dense Peri-urban Settlements', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
34. JOHN, W., **BUCKLEY, C.A.**, JACOBS, E.P. and SANDERSON, R.D., 'Synthesis and Use of Poly DADMAC for Water Purification', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)

35. PASTRE, A., MULHOLLAND, M., LE LANN, M.-V., **BUCKLEY, C.A.**, BROUCKAERT, C.J., ROUSTAN, M. and MABEER, V., 'Control of Potable Water Chlorination', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
36. HUANG, T., BROUCKAERT, C.J., PRYOR, M., DOCRAT, M. and **BUCKLEY, C.A.**, 'Application of Computational Fluid Dynamics Modelling on an Ozone Contactor', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
37. BROUCKAERT, C.J., SCHNEIDER, J., MANSFIELD, M. and **BUCKLEY, C.A.**, 'Water Pinch Analysis as a Transparent Tool for the Co-regulation of Industrial Processes', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
38. FOXON, K.M., DAMA, P., BELL, J. and **BUCKLEY, C.A.**, 'Application of Aquatic Modelling to the Design of an Anaerobic Baffled Reactor for Peri-urban Sanitation', Water Institute of Southern Africa (WISA), Biennial Conference & Exhibition, ICC, Durban, South Africa, 19-23 May 2002. (Poster)
39. TELUKDARIE, A., **BUCKLEY, C.A.** And KOEFOED, M., 'The Importance of Assessment Tools in Promoting Cleaner Production in the Metal Finishing Industry', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 438-445, 30 September - 4 October 2002. (Paper)
40. BARCLAY, S.J., **BUCKLEY, C.A.** And LUNDBO, K., 'The Importance of Training in Promoting Cleaner Production', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 347-354, 30 September - 4 October 2002. (Paper)
41. RAMSAMY, D., RAKGOTHO, T., NAIDOO, V. And **BUCKLEY, C.A.**, 'Anaerobic Co-digestion of High Strength / Toxic Organic Liquid Effluents in a Batch and Continuous Experiments', Volume 2, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 242-251, 30 September - 4 October 2002. (Paper)
42. NAIDOO, D., NAIDOO, V. And **BUCKLEY, C.A.**, 'Determination of Toxicity of Industrial Effluents Using the Anita-Maia Titration Biosensor', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 172-178, 30 September - 4 October 2002. (Paper)
43. BINDA, M.A., NAIDOO, V. And **BUCKLEY, C.A.**, 'Score System for the Selection of Textile Chemicals and Dyes in South Africa', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 413-421, 30 September - 4 October 2002. (Paper)
44. SOUKOP, M.B., HOUNSOME, R., BARCLAY, S.J. And **BUCKLEY, C.A.**, 'Is Waste Minimisation a Social Sustainable Tool?', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 458-468, 30 September - 4 October 2002. (Poster)
45. BARCLAY, S.J. And **BUCKLEY, C.A.**, 'Facilitator's Manual for Establishing and Running Waste Minimisation Clubs in South Africa', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 407-412, 30 September - 4 October 2002. (Poster)
46. DEMPSTER, H., BARCLAY, S.J., BLOMQUIST, P.A., **BUCKLEY, C.A.**, SPANKIE, S.A.A. And BROWN, N., 'Factors Affecting the Success of the Pietermaritzburg Waste Minimisation Club', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 422-430, 30 September - 4 October 2002. (Poster)
47. NAIDOO, V., RAKGOTHO, T., MAJIYEZI, S., ODHAV, B. And **BUCKLEY, C.A.**, 'Potential for Anaerobic Treatment of High Strength/Toxic Organic Liquid Industrial Effluents', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 179-187, 30 September - 4 October 2002. (Poster)

48. SPANKIE, S., BROWN, N., VAN DAELE, A., BARCLAY, S.J. And **BUCKLEY, C.A.**, 'Chemical Analysis as an Aid to Waste Minimisation in the Metal Finishing Industry', Volume 1, Proceedings of the International Waste Management Biennial Congress & Exhibition (Wastecon 2002), ICC, Durban, South Africa, pp. 469-477, 30 September - 4 October 2002. (Poster)
49. **BUCKLEY, C.A.**, 'Membranes and Sustainable Water for Developing Countries', Exploration of the Potential of Membrane Technology for Sustainable Decentralised Sanitation, Rockefeller Foundation Team Residency, Bellagio, Italy, 23-26 April 2003. (Paper)
50. BARCLAY, S.J. And **BUCKLEY, C.A.**, 'Facilitator's Manual for Establishing and Running Waste Minimisation Clubs in South Africa', NATO CCMS pilot Study on Clean Products and Processes, 2003 Annual Meeting, Cetraro, Italy, 11 -15 May 2003. (Paper )
51. **BUCKLEY, C.A.**, 'Clean Products and Processes Update', NATO CCMS pilot Study on Clean Products and Processes, 2003 Annual Meeting, Cetraro, Italy, 11 -15 May 2003. (Extended Abstract)
52. BARCLAY, S.J., WENZEL, H., SCHNEIDER, Z., **BUCKLEY, C.A.**, KNUDSEN, H.H. And BARCLAY, S.J., 'Break-through of Mass Integration in Textile Industry Through Development of Generic Water Recycle Schemes', Engineering Conferences International on Water Purification and Reuse, Seminaris Seehotel, Potsdam, Germany, 8 -13 June 2003. (Poster)
53. KOEFOED, M. And **BUCKLEY, C.A.**, 'Water Saving in Wet Industry, The Metal Finishing Sector as a Case Study', Afribuild/Afriwater 2003 Conference (WISA), Sandton Convention Centre, Sandton, Johannesburg, 13-15 August 2003. (Paper)
54. PILLAY, S.D., FRIEDRICH, E. And **BUCKLEY, C.A.**, 'Life Cycle Assessment as a Focusing and Environmental Improvement Tool – A Case Study in Water Recycling', Proceedings of the South African Chemical Engineering Congress, Chemical Engineers Competing in the Global Economy, Sun City, South Africa, 3-5 September 2003, ISBN No. 0-958-46095-7. (Paper)
55. GIANADDA, P., BROUCKAERT, C.J. AND **BUCKLEY, C.A.**, 'The Application of Combined Water and Materials Pinch Analysis to a Chlor-alkali Plant', Proceedings of the South African Chemical Engineering Congress, Chemical Engineers Competing in the Global Economy, Sun City, South Africa, 3-5 September 2003, ISBN No. 0-958-46095-7. (Paper)
56. HUANG, T.-H., BROUCKAERT, C.J. And **BUCKLEY, C.A.**, 'A Computational Modelling and Kinetic Study of an Ozone Contactor', Proceedings of the South African Chemical Engineering Congress, Chemical Engineers Competing in the Global Economy, Sun City, South Africa, 3-5 September 2003, ISBN No. 0-958-46095-7. (Paper)
57. BISCOS, C., MULHOLLAND, M., LE LANN, M.-V., **BUCKLEY, C.A.** And BROUCKAERT, C.J., 'Optimisation Techniques Applied to a Potable Water Distribution System', Proceedings of the South African Chemical Engineering Congress, Chemical Engineers Competing in the Global Economy, Sun City, South Africa, 3-5 September 2003, ISBN No. 0-958-46095-7. (Poster)
58. GIANADDA, P., BROUCKAERT, C.J. And **BUCKLEY, C.A.**, 'The Optimisation of an Ion-exchange Demineralisation Plant Using Combined Water and Materials and Pinch Analysis', Proceedings of the South African Chemical Engineering Congress, Chemical Engineers Competing in the Global Economy, Sun City, South Africa, 3-5 September 2003, ISBN No. 0-958-46095-7. (Poster)
59. JEAN, R., BROUCKAERT C.J., MULHOLLAND, M. And **BUCKLEY, C.A.**, 'Modelling and Control of Cooling Water Circuit at a Power Station, Proceedings of the South African Chemical Engineering Congress, Chemical Engineers Competing in the Global Economy, Sun City, South Africa, 3-5 September 2003, ISBN No. 0-958-46095-7. (Poster)
60. ARJUN, N., SMITH, M., RODDA, N. And **BUCKLEY, C.A.**, 'Water Quality in Peri-urban Communities : Interaction of Water Supply Devices and Water Use Behaviours for Users Supplied by Communal Standpipes

and Household Ground Tanks in Cato Manor (Durban)', IWA Symposium on Health Related Microbiology, Cape Town, 14-19 September 2003. (Poster)

61. MACKAY, N., SMITH, A., RODDA, N. And **BUCKLEY, C.A.**, 'Feasibility Study of the Use of Effluent from an Anaerobic Baffled Reactor (ABR) for Irrigation in a Peri-urban Community (Cato Manor, Durban)', IWA Symposium on Health Related Microbiology, Cape Town, 14-19 September 2003. (Poster)

62. BISCOS, C., BROUCKAERT, C.J., MULHOLLAND, M. And **BUCKLEY, C.A.**, 'Optimal Operation of a Potable Water Distribution Network', City Engineers Strategies Conference, Cape Town International Convention Centre, Cape Town, 19-21 November 2003. (Paper)

63. PILLAY, S.D., FRIEDRICH, E. And **BUCKLEY, C.A.**, 'An Assessment of Using Water Recycling to Release Water for New Domestic Consumers', United Nations Environment Programme, Dams and Development Project, Issue Based Workshop #1, Comprehensive Options Assessment of Dams and their Alternatives, International Conference Centre Geneva, Nairobi, Kenya, 22-24 September 2003. (Extended abstract)

64. PILLAY, S.D., FRIEDRICH, E. And **BUCKLEY, C.A.**, 'Life Cycle Assessment as a Focusing and Improvement Tool as Applied to Wastewater Treatment', The International Water Association Conference on Environmental Biotechnology, Advancement on Water and Wastewater Applications in the Tropics, The Legend Hotel, Kuala Lumpur, Malaysia, 9-10 December 2003. (Paper)

65. BINDA, M. And **BUCKLEY, C.A.**, 'The Score System in the South African Textile Industry', The International Water Association Conference on Environmental Biotechnology, Advancement on Water and Wastewater Applications in the Tropics, The Legend Hotel, Kuala Lumpur, Malaysia, 9-10 December 2003. (Paper)

66. **BUCKLEY, C.A.** And MACLEOD, N., 'Free Sustainable Basic Water and Sanitation - The Durban Experience', The International Water Association Conference on Environmental Biotechnology, Advancement on Water and Wastewater Applications in the Tropics, The Legend Hotel, Kuala Lumpur, Malaysia, 9-10 December 2003. (Keynote Paper)

67. BELL, J. And **BUCKLEY, C.A.**, 'Characterisation of the Methanogenic Populations in an Operating Anaerobic Baffled Reactor', The International Water Association Conference on Environmental Biotechnology, Advancement on Water and Wastewater Applications in the Tropics, The Legend Hotel, Kuala Lumpur, Malaysia, 9-10 December 2003. (Paper)

68. BROUCKAERT, C.J., HARRISON, J., FOXON, K., RODDA, N., AUSTIN, A. And **BUCKLEY, C.A.**, 'A Mathematical Analysis of the Drying Mechanisms in a Growing Heap of Faeces', 1st International Conference on Onsite Wastewater Treatment and Recycle, Esplande Hotel Fremantle, Western Australia, 11-13 February 2004. (Ref paper)

69. LALBAHADUR, T., PILLAY, S., RODDA, N., SMITH, M., **BUCKLEY, C.A.**, HOLDER, F., BUX, F. And FOXON, K., 'Microbiological Studies of an Anaerobic Baffled Reactor : Microbial Community Characterisation Deactivation of Health-related Indicator Bacteria', 1st International Conference on Onsite Wastewater Treatment and Recycle, Esplande Hotel Fremantle, Western Australia, 11-13 February 2004. (Ref Paper)

70. FOXON, K., MTEMBU, D.Z., PILLAY, S., RODDA, N., SMITH, M. And **BUCKLEY, C.A.**, 'The Anaerobic Baffled Reactor (ABR): An Appropriate Technology for the On-site Sanitation, 1st International Conference on Onsite Wastewater Treatment and Recycle, Esplande Hotel Fremantle, Western Australia, 11-13 February 2004. (Paper)

71. BARCLAY, S.J., LUNDBO, K., FOURE, P. And **BUCKLEY, C.A.**, 'Local Authorities Take on Waste Minimisation', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 86-98, ISBN 1-920-01728-3. (Poster)

72. BARCLAY, S.J., LUNDBO, K., FOURE, P. and **BUCKLEY, C.A.**, 'Cleaner Production Makes Good Business Sense : Results of the Cleaner Textile Production Project', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 115-119, ISBN 1-920-01728-3. (Poster)
73. BARCLAY, S.J., LUNDBO, K., FOURE, P. and **BUCKLEY, C.A.**, 'Demonstrating the Benefits of Cleaner Production', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 120-126, ISBN 1-920-01728-3. (Poster)
74. WENZEL, H., SCHNEIDER, Z, **BUCKLEY, C.A.**, KNUDSEN, H.H. and BARCLAY, S.J., 'Breakthrough of Mass Integration Textile Industry Through Development of Generic Water Recycling Schemes', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 617, ISBN 1-920-01728-3. (Poster)
75. FOURE, P., BARCLAY, S.J., LUNDBO, K. And **BUCKLEY C.A.**, 'Cleaner Textile Production : Achievements and Future Plans', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 108-114, ISBN 1-920-01728-3. (Poster)
76. JEAN, R., BROUCKAERT, C., MULHOLLAND, M. And **BUCKLEY, C.A.**, 'Water Management in Zero Liquid Waster Power Station', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 673-682, ISBN 1-920-01728-3. (Poster)
77. THANJEKWAYO, M., SHUMANE, M. and **BUCKLEY, C.A.**, 'The Effects f Natural Organic Matter (NOM) from Selected SA Rivers on the Precipitation of Calcium Carbonate (Calcite or Aragonite), Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 683, ISBN 1-920-01728-3. (Poster)
78. FRIEDRICH, E., PILLAY, S. And **BUCKLEY, C.A.**, 'The Environmental Impacts of Potable and Recycled Water : A Case Study on Effluent Toxicity', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 253-262, ISBN 1-920-01728-3. (Paper)
79. FOXON, K., PILLAY, S., LALBAHADUR, T., RODDA, N., HOLDER, F. And **BUCKLEY, C.A.**, 'The Anaerobic Baffled Reactor (ABR) : An Appropriate Technology for On-site Sanitation', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 134-144, ISBN 1-920-01728-3. (Paper)
80. REMIGI, E., NAIDOO, D. And **BUCKLEY, C.A.**, 'Mathematical Modelling of a PH-STAT Bioassay', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 68-74, ISBN 1-920-01728-3. (Paper)
81. MOMBA, M.N.B., MAKALA, N., TYAFA, Z., BROUCKAERT, B.M., **BUCKLEY, C.A.** And THOMPSON, P., 'Improving the Efficiency and Sustainability of Disinfection at a Small Rural Water Treatment Plant', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 495-503, ISBN 1-920-01728-3. (Paper)
82. BAILEY, W.R. And **BUCKLEY, C.A.**, 'Modelling Domestic Water Tariffs', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 759-769, ISBN 1-920-01728-3. (Paper)

83. PILLAY, S.D., FRIEDRICH, E. And **BUCKLEY, C.A.**, 'An Assessment of Using Water Recycling to Release Water for New Domestic Consumers : Initial Results', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 882-889, ISBN 1-920-01728-3. (Paper)
84. RAMPHAO, M., WENTZEL, M.C., MERRITT, R., EKAMA, G.A., YOUNG, T. and **BUCKLEY, C.A.**, 'The Impact of Membrane Solid Liquid Separation on the Design of Biological Nutrient Removal Activated Sludge Systems', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 1043.1-1043.13, ISBN 1-920-01728-3. (Paper)
85. BROUCKAERT, C.J., NAIDU, T., HUANG, T. And **BUCKLEY, C.A.**, 'Upgrading a Potable Water Clarifier Using Computational Fluid Dynamic Modelling', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 1189-1195, ISBN 1-920-01728-3. (Paper)
86. FOXON, K.M., BROUCKAERT, C.J., REMIGI, E. And **BUCKLEY, C.A.**, 'Biochemical Modelling of the Anaerobic Baffled Reactor', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 1435-1446, ISBN 1-920-01728-3. (Paper)
87. HUANG, T., BROUCKAERT, C.J. And **BUCKLEY, C.A.**, 'Integration of CFD Modelling and Kinetic Study to Improve the Control Strategy of an Ozone Contractor', Proceedings of the 2004 Water Institute of Southern Africa (WISA) Biennial Conference and Exhibition, Cape Town International Convention Centre, Cape Town, South Africa, 2-6 May 2004, pp. 1494-1502, ISBN 1-920-01728-3. (Paper)
88. LESKE, T., **BUCKLEY, C.A.** And FRIEDRICH, E., 'Salinity - A New Environmental Impact Category for Life Cycle Assessments', The Third African Roundtable on Sustainable Consumption and Production, Casablanca, Morocco. 17-20 May 2004. (Paper)
- 89. BUCKLEY, C.A.** And BARCLAY, S.J., 'Facilitator's Manual for Establishing and Running Waste Minimisation Clubs in South Africa', Third African Roundtable on Sustainable Consumption and Production, Casablanca, Morocco. 17-20 May 2004. (Paper)
90. MARIAH, L., **BUCKLEY, C. A.**, JAGANYI, D., DRIOLIE, E. and CURCIO, D., 'The Development of Sustainable Salt Sinks : Evaluation of an Integrated Membrane System for the Recovery and Purification of Magnesium Sulphate and Sodium Chloride from Brine Streams', 37th National Convention of the South African Chemical Institute, Pretoria, South Africa, 04 - 09 July 2004. (Poster)
91. ARJUN, N., JOUBERT, J.-P., SMITH, M., RODDA, N., And **BUCKLEY, C.A.**, 'Water Quality at Point for Users Supplied by Standpipes and Groundtanks in a Peri-urban Community', IWA Specialist Conference on Water and Wastewater Management for Developing Countries (WAMDEC 2004) : Innovative And Sustainable Approaches For Serving The Poor, Elephant Hills Hotel, Victoria Falls, Zimbabwe, 28-30 July 2004 , Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8. (Paper)
92. TOLON, L., SMITH, M., RODDA, N., FOXON, K. And **BUCKLEY, C.A.**, 'Effect of Industrial Effluents on Nitrification in Activated Sludge', IWA Specialist Conference on Water and Wastewater Management for Developing Countries (WAMDEC 2004) : Innovative And Sustainable Approaches For Serving The Poor, Elephant Hills Hotel, Victoria Falls, Zimbabwe, 28-30 July 2004 , Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8. (Paper)
93. PILLAY, S., FOXON, K., SMITH, M., RODDA, N. And **BUCKLEY, C.A.**, 'Treatment Performance and Effluent Quality from an Anaerobic Baffled Reactor Treating Domestic Wastewaters : Implications for Water Reuse', IWA Specialist Conference on Water and Wastewater Management for Developing Countries (WAMDEC 2004) : Innovative And Sustainable Approaches For Serving The Poor, Elephant Hills Hotel, Victoria Falls, Zimbabwe, 28-30 July 2004 , Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8. (Poster)



94. HARRISON, J., PFAFF, B., GOUNDEN, T. And **BUCKLEY, C.A.**, 'Free Sustainable Basic Water and Sanitation - The Urban Experience', IWA Specialist Conference on Water and Wastewater Management for Developing Countries (WAMDEC 2004) : Innovative And Sustainable Approaches For Serving The Poor, Elephant Hills Hotel, Victoria Falls, Zimbabwe, 28-30 July 2004 , Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8. (Paper)
95. BAILEY, R. And **BUCKLEY, C.A.**, 'MODELLING DOMESTIC WATER TARIFFS', IWA Specialist Conference on Water and Wastewater Management for Developing Countries (WAMDEC 2004) : Innovative And Sustainable Approaches For Serving The Poor, Elephant Hills Hotel, Victoria Falls, Zimbabwe, 28-30 July 2004., Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8. (Paper)
96. RIDGWAY, T., BURNETT, H., BROUCKAERT, C.J., HARRISON, J. And **BUCKLEY, C.A.**, 'A Mathematical Analysis of the Drying of Faeces in a Urine Diversion Toilet', IWA Specialist Conference on Water and Wastewater Management for Developing Countries (WAMDEC 2004) : Innovative And Sustainable Approaches For Serving The Poor, Elephant Hills Hotel, Victoria Falls, Zimbabwe, 28-30 July 2004, Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8 , Ed. K Mathew & I Nhapi, ISBN 1-84339-511-8. (Paper)
97. MARIAH, L., **BUCKLEY, C.A.**, JAGANYI, D, DRIOLI, E and CURCIO, E., 'The Role of Water Activities in Membrane Distillation of Concentrated Brines for Recovery of Crystalline Products from Brine Effluents', 6th Water Institute of Southern Africa-Membrane Technology Division (WISA-MTD) Symposium and Workshop, Protea Hotel Wilderness, South Africa, 13-15 March 2005. (Poster)
98. PILLAY, S., FOXON, K., RODDA, N., SMITH, M., and **BUCKLEY, C.A.**, 'The Use of Effluent from an Anaerobic Baffled Reactor (ABR) for Irrigation in a Peri-Urban Community', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Paper)
99. GUNNES, M., RODDA, N., SMITH, M., TROTTER, D., MACLEOD, N., and **BUCKLEY, C.A.**, 'Impact of Buried Urine Diversion Waste on Environmental Quality and Plant Growth', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Paper)
100. FOXON, K. and **BUCKLEY, C.A.**, 'The ABR Concept: A Holistic Approach to Managing Wastewater from Low-income Communities and Institutions', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Paper)
101. BROUCKAERT, C.J., FOXON, K., RIDGEWAY, T., RODDA, N. And **BUCKLEY, C.A.**, 'A Mathematical Analysis of the Drying of Faeces in a Urine Diversion Toilet - Sensitivity Analysis', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Paper)
102. SALUKAZANA, L., RODDA, N., SMITH, M., GOUNDEN, T., MACLEOD, N. And **BUCKLEY, C.**, 'Microbiological Safety of Crops Irrigated with Greywater', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Paper)
103. JOUBERT, J.-P., ARJUN, N., RODDA, N., SMITH, M. And **BUCKLEY, C.**, 'Water Use Practices and Point-of-use Water Quality for Users Supplied with Drinking Water by Standpipes or Groundtanks', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Poster)
104. ARJUN, N., FOXON, K., SMITH, M., RODDA, N. And **BUCKLEY, C.A.**, 'Characterisation of the Wastewater Produced by a Developing Community', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Poster)
105. JOUBERT, J.-P., ARJUN, N., SMITH, M., RODDA, N. And **BUCKLEY, C.A.**, 'Biofilm Formation in Groundtanks Used to Supply Free Basic Drinking Water', Third International Conference on Ecological Sanitation, International Convention Centre, Durban, South Africa, 23-27 May 2005. (Poster)

106. MARIAH, L., BROUCKAERT, C., DRIOLI, E., CURCIO, E., JIGANI, D., NAIDOO, P. And **BUCKLEY, C.**, 'The Development of Sustainable Salt Sinks with the Scope of Producing Value-Added-Products and Re-usable Water : Evaluation of an integrated membrane system for the recovery of purification of magnesium sulphate and sodium chloride from brine streams', IWA/WISA Conference on Management of Residues Emanating from Water and Wastewater Treatment, Sandton Convention Centre, Johannesburg, South Africa, 9-12 August 2005. (ref paper).
107. MBOLEKWA, Z. And **BUCKLEY, C.**, 'The Removal of Reactive Dyes from Dye Liquor Using Activated Carbon for the Reuse of Salts, Water and Energy', IWA/WISA Conference on Management of Residues Emanating from Water and Wastewater Treatment, Sandton Convention Centre, Johannesburg, South Africa, 9-12 August 2005. (ref paper).
108. FOXON, K., BROUCKAERT, C., RODDA, N., PFAFF, B., SALUKAZANA, L. And **BUCKLEY, C.A.**, 'Management of Sanitation Residues', IWA/WISA Conference on Management of Residues Emanating from Water and Wastewater Treatment, Sandton Convention Centre, Johannesburg, South Africa, 9-12 August 2005. (ref paper)
109. REMIGI, E. And **BUCKLEY, C.**, 'Protocol for the Assessment of the Disposal of Organic Concentration by Co-digestion', IWA/WISA Conference on Management of Residues Emanating from Water and Wastewater Treatment, Sandton Convention Centre, Johannesburg, South Africa, 9-12 August 2005. (ref poster).
- 110. REMIGI, E.** And FICARA, E., 'The Principle of Automated Titrimetry for the Assessment of Biodegradability and Activity', VIII Taller y Simposio sobre Digestion Anaerobia, Punta del Este, Uruguay, October 2005. (Accepted Poster)

## Publications

1. ROZZI, A., REMIGI, E. and **BUCKLEY, C.A.**, 'Methanogenic Activity Measurements by the Maia Biosensor : Instructions Guide', *Water Science and Technology*, **44**(4), pp. 287-294, August 2001, ISBN 1843394014.
2. 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.
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, C.A.**, '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. 263-270, 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.
15. BELL, J. and **BUCKLEY, C.A.**, 'Treatment of a Textile Dye in the Anaerobic Baffled Reactor', *Water SA*, **29** (2), p.129-134, April 2003, ISSN 0378-4738.

16. BISCOS, C., MULHOLLAND, M., LE LANN, M-V., **BUCKLEY, C.A.** And BROUCKAERT, C.J., 'Optimal Operation of Water Distribution Networks by Predictive Control Using MINLP', Water SA, **29** (4), pp. 393-404, 4 October 2003, ISSN 0378-4738
17. LESKE, T. and **BUCKLEY, C.A.**, 'Towards the Development of a Salinity Impact Category for South African Environmental Life-cycle Assessments : Part 1 - A New Impact Category', Water SA, **29** (3), pp. 289 - 296, 3 July 2003, ISSN 0378-4738.
18. HUANG, T-H., BROUCKAERT, C.J, PRYOR, M. And **BUCKLEY, C.A.**, 'Application of Computational Fluid Dynamics Modelling to an Ozone Contractor', Water SA, Vol 30 (**1**), January 2004, pp. 51-56, ISBN 0378-4738.
19. PILLAY, S.D., FRIEDRICH, E. And **BUCKLEY, C.A.**, 'Life Cycle Assessment as a Focusing and Improvement Tool as Applied to Wastewater Treatment', Water and Environmental Management Series, Environmental Biotechnology : Advancement in Water and Wastewater Application in the Topics, (1), pp. 267 - 273, 2004, ISBN 1 84339 503 7.
20. BELL, J. And **BUCKLEY, C.A.**, 'Characterization of the Methanogenic Populations in an Operating Anaerobic Baffled Reactor', Water and Environmental Management Series, Environmental Biotechnology : Advancement in Water and Wastewater Application in the Topics, (1), pp. 123-128, 2004, ISBN 1 84339 503 7.
21. **BUCKLEY, C.A.**, 'Free Sustainable Basic Water and Sanitation - The Durban Experience and Associated Research Needs', Water and Environmental Management Series, Environmental Biotechnology : Advancement in Water and Wastewater Application in the Topics, pp. 1-6, 2004, ISBN 1 84339 503 7.
22. LESKE, T. and **BUCKLEY, C.A.**, 'Towards The Development of a Salinity Impact Category for South African Life Cycle Assessments: Part 2 - A Conceptual Multimedia Environmental Fate and Effect Model', Water SA **30** (2), pp 241 - 251, 2 April 2004, ISSN 0378-4738.
23. LESKE, T. and **BUCKLEY, C.A.**, 'Towards The Development of a Salinity Impact Category for South African Life Cycle Assessments: Part 3 - Salinity Potentials', Water SA **30** (2), pp 253 - 265, 2 April 2004, ISSN 0378-4738.
24. FOXON, K.M., PILLAY, S., LALBAHADUR, T., RODDA, N., HOLDER, F. and **BUCKLEY, C.A.**, "The Anaerobic Baffled Reactor (ABR): An appropriate technology for on-site sanitation", WaterSA **30**(5) (Special Issue), pp 592 - 598, 2004.
25. MOMBA, M.N.B., MAKALA, N., TYAFA, Z., BROUCKAERT, B.M., **BUCKLEY, C.A.** and THOMPSON, P.A., "Improving the Efficiency and Sustainability of Disinfection at a Small Rural Water Treatment Plant", WaterSA **30** (5) (Special Issue), pp 617 - 622, 2004.
26. RAMPHAO, C.M., WENTZEL, M.C., MERRITT, R., EKAMA, G.A., YOUNG, T. And **BUCKLEY, C.A.**, 'The Impact of Membrane Solid-liquid Separation on the Design of Biological Nutrient Removal Activated Sludge Systems', Biotech & Bioeng, **89** (6), pp 630-646, 2005, ISSN 000 635 92.
27. LALBAHADUR, T., PILLAY, S., RODDA, N., SMITH, M., BUCKLEY, C., HOLDER, F., BUX, F. And **FOXON, K.**, 'Microbiological Studies of an Anaerobic Baffled Reactor : Microbial Community Characterisation Deactivation of Health-related Indicator Bacteria', Water Science and Technology, **10** (51), 2005.

## Reports :

1. PILLAY, M. And **BUCKLEY, C.A.**, 'Detergent Phosphorus in South Africa : Impact on Eutrophication with Specific Reference to the Umgeni Catchment', Water Research Commission Report No.465/1/01, Pretoria, pp 1-28, April 2001, ISBN 1 86845 733 8.

2. PILLAY, V. And **BUCKLEY, C.A.**, 'The Development of a Crossflow Microfiltration Unit to Improve the Performance of Anaerobic Digesters at Waste Water Treatment Works'. WRC Report No. 560/1/01, Pretoria, ISBN 1 86845 744 3, May 2001.
3. FRIEDRICH, E. And **BUCKLEY, C.A.**, 'The Use of Life Cycle Assessment in the Selection of Water Treatment Processes', WRC Report No. 1077/1/02, Water Research Commission, Pretoria, 86 pages, ISBN 1 86845 858 X, March 2002.
4. BARCLAY, S.J. And **BUCKLEY, C.A.**, 'Waste Minimisation Guide for the Textile Industry : A Step Towards Cleaner Production', Volume I: Background information, overview of waste minimisation , environmental pressures. Water Research Commission Report No. TT 139/00, April 2002, pp. 1-1 - App 8-26, ISBN : 1 86845 659 5.
5. BARCLAY, S.J. And **BUCKLEY, C.A.**, 'Waste Minimisation Guide for the Textile Industry : A Step Towards Cleaner Production', Volume II: Self-assessment worksheets. Water Research Commission Report No. TT 140/00, April 2002, 292 pages, ISBN : 1 86845 660 9.
6. BROUCKAERT, C.J. And **BUCKLEY, C.A.**, 'The Application of Computational Fluid Dynamics to Water and Wastewater Treatment Works', Water Research Commission Report No. 648/1/02, 2002, 57 pages, ISBN 1-86845-857-1.
7. PILLAY, V.L. And **BUCKLEY, C.A.**, 'Evaluation and Optimisation of a Crossflow Microfilter for the Production of Potable Water in Rural and Peri-urban Areas', Water Research Commission report No 662/1/03, January 2003, 52 pages, ISBN 1-86845-948-9.
8. NAIDOO, V. And **BUCKLEY, C.A.**, 'Survey of Pesticide Wastes in South Africa and Review of the Treatment Options', Water Research Commission Report No. 1128/1/03, May 2003, 76 pages, ISBN 1-86845-998-5.
9. BROUCKAERT, C.J. And **BUCKLEY, C.A.**, 'The Application of Pinch Analysis for the Rational Management of Water and Effluent in an Industrial Complex', Water Research Commission Report No. 851/1/03, May 2003, 108 pages, ISBN 1-77005-028-0.
10. BARCLAY, S.J. And **BUCKLEY, C.A.**, 'The Regional Treatment of Textile and Industrial Effluents', Water Research Commission Report No. 456/1/04, February 2004, pp. 86, ISBN 1-77005-125-2.
11. SACKS, J. And **BUCKLEY, C.A.**, 'Anaerobic Digestion of High-strength or Toxic organic Effluents in Available Digester Capacity', WRC Report No. 762/1/04, Water Research Commission, Pretoria, March 2004, pp. 1-E3, ISBN 1-77005-146-5.
12. JØRGENSEN, B.H. And **BUCKLEY, C.A.**, 'Technology Foresight and Cleaner Production in a Highly Polluted Industrial Area', Risø National Laboratories, Denmark, Risø-R -1490(EN), December 2004, ISSN 0106-2840, ISBN 87-550-3394-6.
13. BROUCKAERT, C.J., HUANG, T and **BUCKLEY, C.A.**, 'Applications of Computational Fluid Dynamics Modelling in Water Treatment', WRC Report No. 1075/1/05, Water Research Commission, Pretoria, March 2005, pps. 76, ISBN 1-77005-271-2.
14. FRIEDRICH, E., **BUCKLEY, C.A.**, PILLAY, S. And LESKE, A., 'A Life Cycle Assessment of Secondary Water Supply', WRC Report No. 1252, Water Research Commission