

Prof C Carrington

Journal Articles - Refereed Article

- Carrington, C.G., Sun, Z. and Bannister, P. Dehumidifier batch drying - effect of heat-losses and air leakage. *International Journal of Energy Research* 24:205-214 (2000)
- Carrington, C.G., Sun, Z., Sun, Q., Bannister, P. and Chen, G. Optimising efficiency and productivity of a dehumidifier batch dryer. Part 1 - Capacity and airflow. *International Journal of Energy Research* 24:187-204 (2000)
- Chen, G., Bannister, P. and Carrington, C.G. Optimum air drying strategy for dehumidifier timber drying. *Drying Technology* 19:117-128 (2001)
- Chen, G., Bannister, P., McHugh, J., Carrington, C.G. and Sun, Z. Design of controlled atmosphere dehumidifier fruit driers. *IPENZ Transactions* 27(1):31-34 (2000)
- Sun, Z. and Carrington, C.G. Dynamic modelling of a dehumidifier wood drying kiln. *Drying Technology* 17:731-743 (1999)
- Sun, Z., Carrington, C.G. and Bannister, P. Dynamic modelling of the wood stack in a wood drying kiln. *Transactions of Institution of Chemical Engineers* 78:107-117 (1999)
- Sun, Z., Carrington, C.G. and Bannister, P. Validation of a dynamic model for a dehumidifier wood drying kiln. *Drying Technology* 17:711-729 (1999)

Conference Publications - Full Refereed Paper

- Carrington, C.G., Sun, Z. and Chen, G. Heat pump driers for timber kilns. In *Proceedings of the IRHACE Technical Conference*. The Institute of Refrigeration, Heating and Air Cd, Queenstown (2000) 2-7
- Carrington, C.G., Sun, Z., Sun, Q., Bannister, P. and Chen, G. Dehumidifier dryers for hard-to-dry timbers. In *Refrigeration into the Third Millennium. Proceedings of the 20th International Congress of Refrigeration*. D. Cleland and C. Dixon (eds). International Institute of Refrigeration, Sydney (2000) CD Rom:2718-2725
- Chen, G., Bannister, P., Carrington, C.G., Ten Velde, P. and Burger, F.C. Development of a dehumidifier dryer for drying pine cones and pine pollen catkins. In *Refrigeration into the Third Millennium. Proceedings of the 20th International Congress of Refrigeration*. D. Cleland and C. Dixon (eds). International Institute of Refrigeration, Sydney, Australia (2000) CD Rom:2750-2756
- Chen, G., Bannister, P., Carrington, C.G. and Wells, C.M. Energy efficiency and productivity of agricultural drying in New Zealand. In *Growing Links, Conference Proceedings on CD ROM, Society for Engineering in Agriculture*. The Institution of Engineers, Adelaide, Australia (2000) 123-129
- Chen, G., Bannister, P., McHugh, J., Carrington, C.G. and Sun, Z. Design of controlled atmosphere dehumidifier fruit driers. In *Proceedings of the IPENZ Annual Technical Conference*. Institution of Professional Engineers (1999) 26 (2)
- Davis, C.P., Carrington, C.G. and Sun, Z. Drying rate curves for the dehumidifier drying of *Pinus radiata* boards. In *7th IUFRO International Wood Drying Conference*. K.Hayashi, T.Hisada, A.Ishikawa, Y.Kanagawa, Y.Kobagashi, N.Kuroda, T.Okano, S.Shida (ed). Forestry and Forest Products Research Institute, Tsukuba, Japan (2001) 216-221
- Firth, A.A. and Carrington, C.G. Performance of Care-50 as an R22 replacement in a domestic HPAC system. In *Refrigeration into the Third Millennium. Proceedings of the 20th International Congress of Refrigeration*. Australian Refrigeration Air Conditioning and Heat, Australia (2000) 54 (12):18-21
- Jayatissa, W., Carrington, G., Wells, C. and Chen, G. Controlled temperature abalone aquaculture. In *Institute of Refrigeration, Heating and Air Conditioning Engineers of New Zealand Technical Conference*. P.Bowerman (ed). The Institute of Refrigeration, Heating and Air Cs, Palmerston North, New Zealand (2001) 21-24

Sun, Z. and Carrington, C.G. Effect of stack configuration on wood drying processes. In *6th IUFRO International Wood Drying Conference*. University of Stellenbosch, Matieland, South Africa (1999) 89-98

Wells, C.M., Carrington, C.G., Bannister, P. and Chen, G. Heat pump technology in semi-closed bio-processes. In *Proceedings of the IPENZ Annual Technical Conference*. Institution of Professional Engineers (2000) 26 (2)

Mr Cory Davis

Conference Publications - Full Refereed Paper

Davis, C.P., Carrington, C.G. and Sun, Z. Drying rate curves for the dehumidifier drying of *Pinus radiata* boards. In *7th IUFRO International Wood Drying Conference*. K.Hayashi, T.Hisada, A.Ishikawa, Y.Kanagawa, Y.Kobagashi, N.Kuroda, T.Okano, S.Shida (ed). Forestry and Forest Products Research Institute, Tsukuba, Japan (2001) 216-221

Dr Patricia Langhorne

Journal Articles - Refereed Article

- Langhorne, P.J., Squire, V., Fox, C. and Haskell, T. Lifetime estimation for a land-fast ice sheet subjected to ocean swell. *Annals of Glaciology* 33:333-338 (2001)
- Langhorne, P.J., Stone, K.J.L. and Smith, C.C. The bearing capacity of saline ice sheets: centrifugal modelling. *Canadian Geotechnical Journal* 36:467-481 (1999)
- Smith, I.J., Langhorne, P.J., Haskell, T.G., Trodahl, H.J., Frew, R. and Vennell, M.R. Platelet ice and the land-fast sea ice of McMurdo Sound, Antarctica. *Annals of Glaciology* 33:21-27 (2001)
- Trodahl, H.J., McGuinness, M., Langhorne, P.J., Collins, K., Pantoja, A.E., Smith, I.J. and Haskell, T. Heat transport in McMurdo Sound first year fast ice. *Journal of Geophysical Research* 105:11,347-11,358 (2000)

Conference Publications - Full Refereed Paper

- Lawrence, H., Bahr, J.L. and Langhorne, P.J. Analogue signal conditioning and effective programming for processing large volumes of data. In *6th Electronics New Zealand Conference*. G E J Bold (ed). ENZCon, Auckland (1999) 1-5
- McKenzie, C.R., Langhorne, P.J. and Haskell, T. Acoustic emission location and cracking in sea ice. In *Proceedings of the International Association for Hydraulic Engineering and Research 15th International Symposium on Ice*. W. Majewski (ed). Institute of Hydro Engineering, Polish Academy of Science, Gdansk, Poland (2000) 2:71-79

Conference Publications - Full Paper, Non-Refereed

- Langhorne, P.J. Smashing sea ice. In *Living Science, A Conference for Women in Science*. Australasian Women in Science Conference Organisation, Dunedin, New Zealand (1999) 253-256
- Langhorne, P.J. and Haskell, T. Sea ice fatigue. In *Ice in Surface Waters, International Association for Hydraulic Research 14th International Symposium on Ice*. Balkema Netherlands (1999) 855-862
- Langhorne, P.J., Squire, V., Fox, C. and Haskell, T. Role of fatigue in wave-induced break-up of sea ice: a review. In *Ice in Surface Waters 2, Proceedings of the 14th International Symposium on Ice*. H.T. Shen (ed). Balkema, Rotterdam (1999) 1019-1023
- Lawrence, H. and Langhorne, P.J. Datalogger for recording the acoustic emissions from sea ice under stress. In *Living Science, A Conference for Women in Science*. Australasian Women in Science Conference Organisation, Dunedin, New Zealand (1999) 258-264
- Smith, I.J., Langhorne, P.J., Trodahl, H.J., Haskell, T. and Cole, D.M. Platelet ice - the McMurdo Sound debate. In *Ice in Surface Waters, International Association for Hydraulic Research 14th International Symposium on Ice*. Balkema, Netherlands (1999) 829-834

Assoc. Prof Christopher Robert Lloyd

Journal Articles - Refereed Article

- Lloyd, C.R. "State of Environment Reporting in Australia: A Review", *Australian Journal of Environmental Management*, Vol3, No 3, p.151 -162, September 1996
- Lloyd, C.R. "Washing Machine use in remote Aboriginal Communities", *Australian and New Zealand Journal of Public Health*, Vol. 22 No 6, p. 695-699, October 1998.
- Lloyd, C.R. "Renewable energy options for hot water systems in remote areas", *Renewable Energy (UK)* 22, 335-343 Elsevier Science Ltd (2001)
- Lowe, D and Lloyd C.R. "Renewable energy systems for remote areas in Australia", *Renewable Energy*, 22 pp 369-378, Elsevier Science Ltd, (2001)

Consultancy Reports

- Lloyd, C. R. "Washing machine use in remote Indigenous Aboriginal Communities" CAT report #cat97/3, 37 pages, April 1997.
- Titez, C, Peters, S and Lloyd C.R. "Indoor Stoves for Remote Aboriginal Communities" A CAT/NTRC Report #cat 97/8, October 1998.
- Genders, R and Lloyd C.R. "Water Desalination Options for Remote Aboriginal Communities" A CAT/NTRC Report #cat 97/12 November 1998.
- Lloyd C.R. (ed) and Marshall, G "Sewerage Systems in Remote Indigenous Communities" CAT Report #cat98/8, 68 pages December 1998.
- Lloyd C.R. "Sustainable Energy in the Alashan region of Inner Mongolia" A report for ACIL Australia, as part of their AUSAID project in China. (64 pages) September 1999.
- Marshall, G and Lloyd C.R. (ed.), "A review of Scale Prevention Devices for use in hot water systems in remote Aboriginal communities". Technical Report. Report # cat 99/8. August 1999,
- Lloyd, C.R. "AGO Consultancy with respect to use of diesel in remote area power supply scheme" Confidential report submitted to the AGO via Energy Strategies, 33 pages, September 1999.
- Lloyd, C.R., Wilson, L and Adams, A "Hot water use and water heating systems in remote Indigenous communities, CAT report #cat 00/10, 67 pages, December 2000
- Lloyd, C.R. Lowe, D and Wilson, L "Renewable Energy in Remote Australian Communities (A Market Survey)" – Executive Summary Australian Cooperative Research Centre for Renewable Energy, June 2000
- Lloyd, C.R. Lowe, D and Wilson, L "Renewable Energy in Remote Australian Communities (A Market Survey)" –Main Report, Australian Cooperative Research Centre for Renewable Energy, December 2000.
- Lloyd C. R. (editor) "Assessment of Status of Development of Standards and Training for Renewable Energy in Australia." Report for the Australian and New Zealand Energy and Minerals Council (ANZEMC) June 2001, (83 pages). Contributors Graham Morrison, Ken Guthrie, Ted Spooner, Bob Lloyd, Trevor Pryor, David Wood, John Todd, Phillip Jennings, Chris Lund and Prakash Dubey.

Conference Publications

- Lloyd, C.R. "Hot Water systems in remote Indigenous communities in Australia". Paper presented at the World Renewable Congress, Murdoch University, Perth (February 1999).

- Lloyd, C.R. and Lowe, D. “*A Market Survey of Renewable Energy Systems used in remote locations in Australia*”. Paper presented at the World Renewable Congress, Murdoch University, Perth (February 1999).
- Marshall G. and Lloyd, C.R. “*Sewage Systems in Remote Aboriginal Communities*”. Paper presented at Onsite 99, UNE, Armidale, (July 1999).
- Lloyd, C.R., Lowe, D. and Wilson, L. “*A Market Survey of Renewable Energy Systems used in remote locations in Australia*”. Paper presented at ANZSES, Solar 2000 Conference, Brisbane (November 2000).
- Spooner, T, Pryor, T., Wilmot N., Cole,G and Lloyd, C.R. “*ACRELab Renewable Energy System Test and Support Laboratory*”. Paper presented at ANZSES, Solar 2000 Conference, Brisbane, Australia (November 2000).
- Dequi, K, Lloyd C.R., and Shuhua, G. “*Solar stoves in Inner Mongolia, China.*” . Paper presented at ANZSES, Solar 2000 Conference, Brisbane (November 2000).
- Lloyd, C.R., Lowe, D. and Wilson, L. “*RE in remote locations in Australia*” Paper presented to the UNEP sponsored Women Leaders on the Uptake of Renewable Energy Technology Seminar held at Murdoch University July 2001.
- Wilson, L.W., Lowe, D.G., Lloyd, C.R. and Jennings S.U. “*Supporting Renewable Energy in Remote Indigenous Communities*”, Paper presented by Lloyd C.R. to the International Solar Energy Society Conference held in Adelaide, November 2001.
- Lloyd C.R. “*Development of test procedures for benchmarking components in RES applications, in particular energy storage systems*” Paper presented to the International Solar Energy Society (ISES) conference held in Adelaide November 2001 on behalf of the following institutions. Fraunhofer-Institute for Solar Energy Systems (FhG-ISE), Germany, Beratung für Batterien und Energietechnik (BBE) , Germany, National Renewable Energy Laboratory (NREL), USA, Australian Centre for Renewable Energy Research (ACRE), Australia, Commissariat a l'Energie Atomique - Groupement Energetique de Cadarache (CEA) ,France, Centre for Renewable Energy Systems (CRES), Greece, The Netherlands Energy Research Foundation (ECN), Netherlands, National Institute for Engineering and Industrial Technology (INITI), Portugal, JRC-Environment Institute- Renewable Energies Unit (ISPRA), Italy, Energy Research Unit (ERU) at Rutherford Appleton Laboratory (RAL), UK, Risoe National Laboratory (RISOE), Denmark and the Centre for Solar Energy and Hydrogen Research (ZSW), Germany.

Book Chapters

Two chapters for a book on environmental health in Indigenous communities have been published in “*Environmental Health Handbook – A practical manual for remote communities*”; Menzies School of Public Health 2000, NT, Australia. One chapter is on energy use (p 97-109) and the other on solid waste disposal (p125-135).

Dr Zhifa Sun

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- Carrington, C.G., Sun, Z. and Bannister, P. Dehumidifier batch drying - effect of heat-losses and air leakage. *International Journal of Energy Research* 24:205-214 (2000)
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- Sun, Z. Numerical simulation of flow in an array of in-line blunt boards: Mass transfer and flow patterns. *Chemical Engineering Science* 56(5):1883-1896 (2001)
- Sun, Z. and Carrington, C.G. Dynamic modelling of a dehumidifier wood drying kiln. *Drying Technology* 17:731-743 (1999)
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- Chen, G., Bannister, P., McHugh, J., Carrington, C.G. and Sun, Z. Design of controlled atmosphere dehumidifier fruit driers. In *Proceedings of the IPENZ Annual Technical Conference*. Institution of Professional Engineers (1999) 26 (2)
- Davis, C.P., Carrington, C.G. and Sun, Z. Drying rate curves for the dehumidifier drying of *Pinus radiata* boards. In *7th IUFRO International Wood Drying Conference*. K.Hayashi, T.Hisada, A.Ishikawa, Y.Kanagawa, Y.Kobagashi, N.Kuroda, T.Okano, S.Shida (ed). Forestry and Forest Products Research Institute, Tsukuba, Japan (2001) 216-221
- Sun, Z. Correlations for heat and mass transfer coefficients over blunt flat plates. In *CHT'01 Advances in Computational Heat Transfer II*. G. de Vahl Davis & E. Leonardi (eds). Begell House, Inc, New York (2001) 567-574
- Sun, Z. and Carrington, C.G. Effect of stack configuration on wood drying processes. In *6th IUFRO International Wood Drying Conference*. University of Stellenbosch, Matieland, South Africa (1999) 89-98

Dr C Wells

Books - Authored Research

Wells, C.M. *Total Energy Indicators of Agricultural Sustainability: Dairy Farming Case Study Final Report*. Prepared for MAF Policy (ed), Department of Physics, University of Otago, Dunedn. (2001) 84p

Conference Publications - Full Refereed Paper

Chen, G., Bannister, P., Carrington, C.G. and Wells, C.M. Energy efficiency and productivity of agricultural drying in New Zealand. In *Growing Links, Conference Proceedings on CD ROM, Society for Engineering in Agriculture*. The Institution of Engineers, Adelaide, Australia (2000) 123-129

Jayatissa, W., Carrington, G., Wells, C. and Chen, G. Controlled temperature abalone aquaculture. In *Institute of Refrigeration, Heating and Air Conditioning Engineers of New Zealand Technical Conference*. P.Bowerman (ed). The Institute of Refrigeration, Heating and Air Cs, Palmerston North, New Zealand (2001) 21-24

Wells, C.M., Carrington, C.G., Bannister, P. and Chen, G. Heat pump technology in semi-closed bio-processes. In *Proceedings of the IPENZ Annual Technical Conference*. Institution of Professional Engineers (2000) 26 (2)

Conference Publications - Full Paper, Non-Refereed

Pan, H.H., Wells, C.M. and Bannister, P. A new methodology for risk profiling in energy performance contracting. In *Proceedings of EEA Conference*. Auckland (2000)

Pan, H.H., Wells, C.M. and Bannister, P. Risk analysis and management in EPC: A new methodology and its risk management strategies. In *Proceedings of NAESCO 17th Annual Conference*. (2000)

Conference Publications - Extract of Paper

Wells, C.M. The potential for passive solar housing in Dunedin. In *Integrating Energy Systems, SEF Conference*. Sustainable Energy Forum, Wellington (2000)