



Australian Government

ansto

Nuclear-based science benefiting all Australians

Journal Publication

2008

1. Alquezar, R. Markich S. & Twining J. (2008) Comparative accumulation of ^{109}Cd and ^{75}Se from water and food by an estuarine fish (*Tetractenos glaber*). *Journal of Environmental Radioactivity* 99 (2008) 167-180.
2. Atahan, P.¹, Itzstein-Davey, F.², Taylor, D.^{2,3}, Dodson, J.⁴, Qin, J.⁵, Zheng, H.⁵, Brooks, A.² (2008). Holocene-aged sedimentary records of environmental changes and early agriculture in the lower Yangtze, China. *Quaternary Science Reviews* 27:556-570.
3. Cendón D.I., Ayora C. Pueyo J.J., Taberner C. and Blanc-Valleron M.-M. (2008). The chemical and hydrological evolution of the Mulhouse potash basin (France): Are “marine” ancient evaporites always representative of synchronous seawater chemistry? *Chemical Geology* 252: 109-124.
4. Y.C. Chan, E. Christensen, G. Golding, G. King, W. Gore, D. D. Cohen, O. Hawas, E. Stelcer, R. Simpson, L. Denison, N. Wong, Source apportionment of ambient volatile organic compounds in major cities in Australia by positive matrix factorisation, *Clean Air and Environmental Quality*, 42 (2008) 22-29
5. Yiu-Chung Chan, David D. Cohen, Olga Hawas, Eduard Stelcer, Rod Simpson, Lyn Denison, Neil Wong, Mary Hodge, Eva Comino, Stewart Carswell. Apportionment of sources of fine and coarse particles in four major Australian cities by positive matrix factorization. *Atmospheric Environment*, 42 (2008) 342-389.
6. D.P.Child, M.A.C. Hotchkis, M.L. Williams. High sensitivity analysis of Plutonium isotopes in environmental samples using Accelerator Mass Spectrometry (AMS), *J. Anal. At. Spectrom*, 23 (2008) 765.
7. David Cohen, Eduard Stelcer, Rainer Siegele, Mihail Ionescu, Michael Prior, Experimental bremsstrahlung yields for MeV proton bombardment of beryllium and carbon, *Nucl. Instr. and Methods*, B266 (2008) 1149-1153.
8. David Cohen, Stelcer, Rainer Siegele, Mihail Ionescu. Silicon dead layer thickness estimates using proton bremsstrahlung from low atomic number targets. *X-ray Spectrometry*, 37 (2008) 125-128.
9. Crawford, J., Zahorowski, W., and Cohen, D.D., 2008: ‘A new metric space incorporating radon-222 for generation of back trajectory clusters in atmospheric pollution studies’. *Atmospheric Environment* 43,371-381.
10. T. Doelman, R. Torrence, V. Popov, M. Ionescu, N. Kluyev, I. Yurievich, I. Evgenjevna, P. White, M. Clements, An Assessment of Volcanic Glass Sources in the Southern Primorye Region, Far East Russia, *Geoarchaeology* 23, 234, (2008)
11. T.M. Esat and Y. Yokoyama (2008) Issues in radiocarbon and U-series dating of corals from the first glacial period. *Quaternary Geochronology*, 3, 244.

12. Fischer, M.J. and P.C. Treble, 2008. Calibrating climate-d180 regression models for the interpretation of high-resolution speleothem d18O time series, *Journal of Geophysical Research*, 113, D17103, doi:10.1029/2007JD009694.
13. Gibson, J.J., Sadek, M.A., Stone, D.J.M., Hughes, C.E., Hankin, S., Cendon, D.I., Hollins, S.E. (2008) Evaporative isotope enrichment as a constraint on reach water balance along a dryland river. *Isotopes in Environmental and Health Studies* 44:1, 83-98.
14. K. Harle, D. Etheridge, M. Barbetti, R. Jones, B. Brooke, P. Whetton, T.v. Omen, I. Goodwin, D. Fink, And S. Haberle. Building a future on knowledge from the past: What paleo-science can reveal about climate change and its potential impacts in Australia : A research brief for the Australian Greenhouse Office, Published by the Dept of Environment and Water Resources, Commonwealth of Australia, Canberra. ISBN -13: 978-1-921297-03-8, 2008
15. Philip Hopke, David D. Cohen, Bilkis A. Begum, Swapan K. Biswas, Bangfa Ni, Gauri Girish Pandit, Muhayatun Santoso, Yong-Sam Chung, Perry Davy, Andreas Markwitz, Shahida Waheed, Naila Siddique, Flora L. Santos, Preciosa Corazon B. Pabroa, Manikkuwadura Consy Shirani Seneviratne, Wanna Wimolwattanapun, Supamatthree Bunprapob, Thu Bac Vuong, Andrzej Markowicz, Urban air quality in the Asian region, *Science of the Total Environment* 404 (2008) 103-112.
16. M.A.C. Hotchkis, D. Buckley and D. Button. (2008) Performance of an Electron Cyclotron Resonance Ion Source designed for Isotope Ratio Mass Spectrometry. *Rev. Sci. Instr.*, 79 02A304
17. M.A.C. Hotchkis, D. Button, C.L. Waring. Use of multiply-charged atomic ions for isotope ratio mass spectrometry, *Rapid Comm. Mass Spectrom.* 22 (2008) 1408-14
18. F. Huang, X.Liu, P. Kong, D. Fink, Y. Ju, A. Fang, L. Yu, X. Li and C.Na (2008) Fluctuation history of the interior East Antarctic Ice sheet since mid-Pliocene, *Antarctic Science*, 20(2), 197-203
19. M. Ionescu, Y. Zhao, R. Siegele, D. D. Cohen, E. Stelcer, M. Prior, Heavy ion ToF analysis of oxygen incorporation in MgB₂ thin films, *Nucl. Instr. and Methods*, B266 (2008) 1701-1704
20. M. Ionescu, N. P. Bhatia, D. D Cohen, A. Kachenko, R. Siegele, M. A. Marcus, S. Fakra, G. Foran, X-ray Absorption Spectroscopy at the Ni-K edge in *Stackhousia tryonii* Bailey Hyperaccumulator, *Journal of X-ray Spectrometry*, 37 (2008) 629-634.
21. Itzstein-Davey, F., Atahan, P., Dodson, J., Taylor, D. and Zheng, H. (2008). A sediment-based record of Lateglacial and Holocene environmental changes from Guangfulin, Yangtze delta, eastern China. *The Holocene* 17:1221-1232.
22. M. Jeffries, A. E. Whitten, S. P. Harris, J. Trehwella, 2008, Small-Angle X-ray Scattering Reveals the N-Terminal Domain Organization of Cardiac Myosin Binding Protein C. *J. Mol. Biol.* 377, 1186-1189.
23. A.G. Kachenko, B. Singh, N.P. Bhatia, R. Siegele, Quantitative elemental localisation in leaves and stems of nickel hyperaccumulating shrub *Hybanthus floribundus* subsp. *floribundus* using micro-PIXE spectroscopy. *Nucl. Instr. and Meth.* B266 (2008) 667-676.
24. A.G. Kachenko, R. Siegele, N.P. Bhatia, B. Singh, M. Ionescu, Comparison of specimen preparation techniques for localisation of spatially distributed metal (loid)s in leaves of two hyperaccumulating plants using micro-PIXE spectroscopy, *Nucl. Instr. and Meth.* B266 (2008) 1598-1604.
25. E.Keegan, S.Richter, I.Kelly, H.Wong, P.Gadd, H.Kuehn and A.Alonso-Munoz. (2008) The provenance of Australian uranium ore concentrates by elemental and isotopic analysis, *Applied Geochemistry* 23, 765-777
26. Kosnik, M.A., D.S. Kaufman, and Q. Hua (2008), Identifying outliers and assessing the accuracy of amino acid racemization measurements for geochronology: I. age calibration curves, *Quaternary Geochronology*, 3, 308-327, doi:10.1016/j.quageo.2008.04.002.
27. S.H. Lee, P.P. Povinec, E.Wyse, M.A.C. Hotchkis. Ultra-low level determination of ²³⁶U in IAEA marine reference materials by ICPMS and AMS, *App. Rad., Isot.*, 66 (2008) 823.

28. Natalie Mahowald, Timothy D. Jickells, Alex R. Baker, Paulo Artaxo, Claudia R., Benitez-Nelson, Gilles Bergametti, Tami C. Bond, Ying Chen, David D. Cohen, Barak Herut, Nilgun Kubilay, Remi Losno, Chao Luo, Willy Maenhaut, Kenneth A. McGee, Gregory S. Okin, Ronald L. Siefert, Seigen Tsukuda, The global distribution of atmospheric phosphorus sources, concentrations and deposition rates and anthropogenic impacts, *Global Biogeochemical Cycles*, 22, GB4026, doi:10.1029/2008GB003240
29. Mazumder D., Saintilan N., and Williams, R. 2008. Zooplankton inputs and outputs in the saltmarsh at Towra Point, Australia, *Wetlands Ecology and Management*. Volume 17, Number 3, 225-210. DOI 10.1007/s11273-008-9102-x
30. Mazumder D., Williams, R., Dennies, R., Saintilan N. and Szymczak, R. 2008 Variability of stable isotope ratios of glassfish (*Ambassis jacksoniensis*) from mangrove/saltmarsh environments in southeast Australia and implications for ecosystem studies. *Environmental Bioindicator* 3, 114-123.
31. A. McCarthy, A. Mackintosh, U. Rieser and D. Fink. Mountain glacier chronology from Boulder Lake, New Zealand indicates MIS 4 and MIS 2 ice advances of similar extent. *Artctic and Alpine Research*, V40(4) 695-708, 2008 (doi:10.1657/1523-0430(36-111))
32. Peter J. McGlenn, Daniel R.M. Brew, Laurence P. Aldridge, Timothy E. Payne, Kylie P. Olufson, Kathryn, E. Prince and Ian J. Kelly (2008). Durability of a Cementitious Wasteform for Intermediate Level Waste. XXXII International Symposium on the Scientific Basis for Nuclear Waste Management. Mater. Res. Soc. Symp. Proc. Vol. 1107, pp101-108.
33. Joanne Muller, Malin Kylander, Raphael A.J. Wüst, Dominik Weiss, Antonio Martinez-Cortizas, Allegra N. LeGrande, Tim Jennerjahn, Herman Behling, William T. Anderson, Geraldine Jacobson., (2008) Possible evidence for wet Heinrich phases in tropical NE Australia: The Lynch's Crater deposit. *Quaternary Science Reviews*, 27, 468-475.
34. Nanson, G.C., Price, D.M., Jones, B. G., Maroulis, J.C., Coleman, M., Bowman, H., Cohen, T.J., Pietsch, T.J., **Larsen, J.R.**, (2008). Alluvial evidence for major climate and flow regime changes during the middle and late Quaternary in eastern central Australia. *Geomorphology* 101(1-2), 109-129.
35. Petrenko, V.V., A.M. Smith, G. Brailsford, K. Riedel, Q. Hua, D. Lowe, J. Severinghaus, V. Levchenko, T. Bromley, R. Moss, J. Mühle, and E. Brook (2008), A new method for analyzing ¹⁴C of methane in air extracted from ancient glacial ice, *Radiocarbon*, 50, 53-73.
36. Power, M.J.^{1,*}, Marlon, J.², Ortiz, N.³, Bartlein, P.J.², Harrison, S.P.³, Mayle, F.E.¹, Ballouche, A.⁴, Bradshaw, R.H.W.⁵, Carcaillet, C.⁶, Cordova, C.⁷, Mooney, S.⁸, Moreno, P.I.⁹, Prentice, I.C.¹⁰, Thonicke, K.³, Tinner, W.¹¹, Whitlock, C.¹², Zhang, Y.¹³, Zhao, Y.³, Ali, A.A.¹⁴, Anderson, R.S.¹⁵, Beer, R.¹¹, Behling, H.¹⁶, Briles, C.¹², Brown, K.J.¹⁷, Brunelle A.¹⁸, Bush, M.¹⁹, Camill, P.²⁰, Chu, G.Q.²¹, Clark, J.²², Colombaroli, D.¹¹, Connor, S.²³, , Daniau, A.-L.²⁴, Daniels, M.²⁵, Dodson, J.²⁶, Doughty, E.²⁷, Edwards, M.E.²⁸, Finsinger, W.^{11,29}, Foster, D.²⁷, Frechette J.³⁰, Gaillard, M.-J.³¹, Gavin, D.G.², Gobet, E.¹¹, Haberle, S.³², Hallett, D.J.³³, Higuera, P.¹², Hope, G.³², Horn, S.³⁴, , Inoue, J.³⁵, Kaltenrieder, P.¹¹, Kennedy, L.³⁶, Kong, Z.C.³⁷, Larsen, C.³⁸, Long, C.J.³⁹, Lynch, J.⁴⁰, Lynch, E.A.⁴¹, McGlone, M.⁴², Meeks, S.⁴³, Mensing, S.⁴⁴, Meyer, G.³⁰, Minckley, T.⁴⁵, Mohr, J.⁴⁶, Nelson, D.M.⁴⁷, New, J.³⁰, Newnham, R.⁴⁸, Noti, R.⁴⁹, Oswald, W.⁵⁰, Pierce, J.⁵¹, Richard, P.J.H.⁵², Rowe, C.³, Sanchez Goñi, M.F.⁵³, Shuman, B.J.⁵⁴, Takahara, H.⁵⁵, Toney, J.⁵⁶, Turney, C.⁵⁷, Urrego-Sanchez, D.H.¹⁹, Umbanhowar, C.⁵⁸, Vandergoes, M.⁵⁹, Vanniere, B.⁶⁰, Vescovi, E.¹¹, Walsh, M.², Wang, X.⁶¹, Williams, N.⁶², Wilmschurst, J.⁴², Zhang, J.H.⁶³ (accepted). Changes in fire regimes since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data, *Climate Change* 30:887-907
37. Reeves J.M., Chivas A.R., García A., Holt S., Couapel M.J.J., Jones B.G., Cendón D.I. and Fink D. (2008). The sedimentary record of palaeoenvironments and sea-level change in the Gulf of Carpentaria, Australia through the last glacial cycle. *Quaternary International* 183: 3-22.
38. J. Rosen, P. O. Å. Persson, M. Ionescu, A. Kondyurin, D. R. McKenzie, M. M. M. Bilek, Oxygen incorporation in Al₂TiC thin films, *Appl. Phys. Lett.* 92, 064102, (2008)

39. Saintilan, N., Mazumder, D. and Cranney, C. (2008). Changes to fish assemblages visiting estuarine wetlands following the closures of commercial fishing in Botany Bay, Australia., *Aquatic Ecosystem Health and Management* 11(4): 441-449
40. Sarah Scarff (2008) The application of isotope and chemical tracers in the determination of flow pathways of water in a small agricultural catchment in the Southern Highlands, NSW, Australia. BSc Thesis, Environmental Sciences, University of Wollongong, pp.130.
41. R. Siegele, A.G. Kachenko, N.P. Bhatia, Y.D. Wang, M. Ionescu, B. Singh, A.J.M. Baker, and D.D. Cohen, Localisation Of Trace Metals In Metal-accumulating Plants Using μ -PIXE. *X-ray Spectroscopy*, 37 (2008) 133-136.
42. Simms, Ava D., Woodroffe C, Jones, B.G., Heijnis, H., Harrison, J., Mann, R.A. (2008) Assessing Soil Remobilisation in Catchments using a ^{137}Cs -sediment Hillslope Model. *Australia Geographer*, 39 (4), 445-465.
43. Simms, Ava D., C. Woodroffe, B.Jones, H. Heijnis, R. Mann & J. Harrison; (2008) Use of ^{210}Pb and ^{137}Cs to simultaneously constrain ages and sources of post-dam sediments in the Cordeaux reservoir, Sydney, Australia, *J. Environ. Radioactivity*, 99, 1111-1120.
44. Smith, M.L., Bignell, L., Alexiev, D., Mo, L., Harrison J. (2008) Evaluation of lead shielding for a gamma-spectroscopy system. *Nuclear Instruments and Methods in Physics Research A*, 589, 275–279.
45. M. Taraban, H. Zhan, A. E. Whitten, D. B. Langley, K. K. Matthews, L. Swint-Kruse, J. Trehwella, 2008, Ligand-induced conformational changes and conformational dynamics in the solution structure of the lactose repressor. *J. Mol. Biol.* 376, 466-481.
46. P.C. Treble, I.J. Fairchild and M.J. Fischer, 2008. Understanding climate proxies in southwest-Australian speleothems. In *Advances in Speleothem Research*, PAGES News, 16(3), 17-19.
47. Twining, J., Creighton, N., Hollins, S. and Szymczak, R. (2008). Probabilistic Risk Assessment and Risk Mapping of Sediment Metals in Sydney Harbour Embayments. *Human and Ecological Risk Assessment*, 14(6) 1202-1225.
48. Vasilii V. Petrenko, Jeffery P. Severinghaus, Edward J. Brook, Jens Mühle, Melissa Headly, Christina M. Harth, Hinrich Schaefer, Niels Reeh, Ray F. Weiss, Dave Lowe and Andrew M Smith (2008). A novel method for obtaining very large ancient air samples from ablating glacial ice for analyses of methane radiocarbon, *Journal of Glaciology* Vol. 54, No. 185 (2008), pp. 233-244.
49. Wang, X. D., Mitchell, D. R. G., Prince, K., Atanacio, A. J. & Caruso, R. A. Gold nanoparticle incorporation into porous titania networks using an agarose gel templating technique for photocatalytic applications. *Chemistry of Materials*, 20(12), 3917-3926 (2008).
50. E. Whitten, S. Cai, J. Trehwella, 2008, MULCh: ModULes for the analysis of small-angle neutron Contrast variation data from biomolecular assemblies. *J. Appl. Crystallogr.* 41, 222-226.