

Prof. Neil I. Ward Journal Publications (1974 to 2021)

Ward, N.I., Brooks, R.R., Reeves, R.D., 1974. Effect of lead from motor-vehicle exhausts on trees along a major thoroughfare in Palmerston North, New Zealand. *Environ. Pollut.*, 6(2), 149-58.

Ward, N.I., Reeves, R.D., Brooks, R.R., 1975. Lead in soil and vegetation along a New Zealand state highway with low traffic volume. *Environ. Pollut.*, 9, 243-51. doi:10.1016/0013-9327(75)90057-9

Ward, N.I., Reeves, R.D., Brooks, R.R., 1975. Lead from motor-vehicle exhausts in sweet-corn plants and soil along a highway in Hawke's Bay, New Zealand, N.Z., *J. Sci.*, 18(2), 261-67.

Ward, N.I., Brooks, R.R., Reeves, R.D., 1976. Copper, cadmium, lead and zinc in soils, stream sediments, waters and natural vegetation around the Tui Mine, Te Aroha, New Zealand. *N.Z. J. Sci.*, 19, 81-9.

Ward, N.I., Brooks, R.R., Roberts, E., 1977. Lead levels in whole blood of New Zealand domestic animals. *Bull. Environ. Contam. Toxicol.*, 18(5), 595-601. doi: 10.1007/BF01684006

Ward, N.I., Brooks, R.R., Roberts, E., Boswell, C.R., 1977. Heavy metal pollution from automotive emissions and its effect on roadside soils and pasture species in New Zealand. *Environ. Sci. Tech.*, 11, 917-20. doi: 10.1080/03015521.1979.10426211

Ward, N.I., Roberts, E., Brooks, R.R., 1977. Contamination of a pasture by a New Zealand base-metal mine, *N.Z. J. Sci.*, 20(4), 413-9.

Ward, N.I., Brooks, R.R., Roberts, E., 1977. Lead pollution from a New Zealand battery factory and smelter compared with that from motor vehicle exhaust emissions. *N.Z. J. Sci.*, 20(4), 407-12.

Ward, N.I., Brooks, R.R., Roberts, E., 1977. Silver in soils, stream sediments, Waters and vegetations near a silver mine and treatment plant at Maratoto, New Zealand. *Environ. Pollut.* 13(4), 269-80.

Ward, N.I., Roberts, E., Brooks, R.R., 1977. Lead uptake by seedlings of *Lolium perenne* L. and *Trifolium repens* L. *N.Z. J. Sci.*, 20(3), 311-5.

Ward, N.I., Brooks, R.R., Roberts, E., 1977. Heavy metals in some New Zealand bryophytes. *Bryologist*, 80(2), 304-12. doi: 10.1007/BF01683484

Ward, N.I., Brooks, R.R., Roberts, E., 1978. Lead levels in sheep organs resulting from pollution from automotive exhausts. *Environ. Pollut.*, 17(1), 7-12. doi: 10.1016/0013-9327(78)90050-2

Ward, N.I., Brooks, R.R., 1978. Gold in some New Zealand plants. *N.Z. J. Bot.*, 16(2), 175-7. doi: 10.1080/0028825X.1978.10429675

Ward, N.I., Brooks, R.R., 1979. Lead levels in wool as an indicator of lead of sheep exposed to automotive emissions. *Bull. Environ. Contamin. Toxicol.*, 21(3), 403-8. doi: 10.1007/BF01685444

Ward, N.I., Brooks, R.R., 1979. Silver uptake by seedlings of *Lolium perenne* L. and *Trifolium repens* L. *N.Z. J. Sci.*, 22(2), 129-32.

Ward, N.I., Roberts, E., Brooks, R.R., 1979. Seasonal-variation in the lead content of soils and pasture species adjacent to a New-Zealand highway carrying medium density traffic. *N.Z. J. Experimental Agriculture*, 7(4), 347-51. doi:10.1080/03015521.1979.10426211

Ward, N.I., Ryan, D.E., 1979. Trace analysis of blood by neutron activation analysis. *Anal. Chim. Acta*, 105(1), 185-97.

Ward, N.I., Stephens, R., Ryan, D.E., 1979. Comparison of three analytical methods for trace element analysis of whole blood. *Anal. Chim. Acta*, 110(1), 9-19. doi: 10.1016/S0003-2670(01)83523-6

Ward, N.I., Yajnik, C.S., Pim, B., Hillson, R.M., Hockaday, T.D.R. Plasma chromium, zinc and vanadium changes during IVGTT and CPAF in diabetics. British Diabetic Association Medical and Scientific Section Meeting, Dublin, September 1982, *Diabetologia*, 23, 476.

Ward, N.I., Pim, B., 1984. Comparison of trace elements in blood plasma of diabetic patients and normal individuals. *Biol. Trace Element Research*, 6(6), 469-487. doi: 10.1007/BF02987202

Yajnik, C.S., **Ward, N.I.**, Humphreys, S., Pim, B., Hockaday, T.D.R., 1983. Interactions of lipid intermediary metabolites and changes in some trace elements during intravenous glucose tolerance test (IVGTT) in diabetics. European Association for the Study of Diabetes 19th Annual Meeting, Oslo, Norway. *Diabetologia*, 25, 205.

Hockaday, T.D.R., Smith, R.F., **Ward, N.I.**, Dhar, H., Yajnik, C.S., 1983. Intravenous glucose tolerance and the accompanying insulin response correlated with plasma concentrations of group II elements in non-insulin-treated diabetics. European Association for the Study of Diabetes, 19th Annual Meeting, Oslo, Norway. *Diabetologia*, 25, 165.

Yajnik, C.S., Hockaday, T.D.R., **Ward, N.I.**, 1984. Fasting plasma magnesium concentrations and glucose disposal in diabetes, *Brit. Med. J.*, 288 (6423), 1032-34. doi: 10.1136/bmj.288.6423.1032

Naylor, G.J., Smith, A.H.W., Bryce-Smith, D., **Ward, N.I.**, 1984. Tissue vanadium levels in manic-depressive psychosis. *Psychol. Med.* 14(4), 767-772. doi: 10.1017/s0033291700019735

Naylor, G.J., Smith, A.H.W., Bryce-Smith, D., **Ward, N.I.**, 1984. Elevated vanadium content of hair and mania. *Biolog. Psych.*, 19(5), 759-64. doi: 10.1017/s0033291700019735.

Naylor, G.J., Smith, A.H.W., Bryce-Smith, D., **Ward, N.I.**, 1985. Trace Elements in Manic Depressive Psychosis. *J. Affective Disorders*, 8(2), 131-136. doi: 10.1016/0165-0327(85)90035-7

Ward, N.I., Bryce-Smith, D., Minski, M.J., Matthews, W.B., 1985. Multiple sclerosis: A multi-element survey. *Biol. Trace Element Res.*, (3)7, 153-9. doi: 10.1007/BF02916537

Ali, S.A., Peet, M., **Ward, N.I.**, 1985. Blood levels of vanadium, caesium and other elements in depressive patients. *J. Affective Disorders*, 9(2), 187-191.

Bryce-Smith, D., **Ward, N.I.**, 1985. Nutrition and pre-conception care. *Lancet*, 2 (8467), 1297-1298.

Ward, N.I., 1986. Multi-element analysis of urine by neutron activation analysis: Application to starvation and anorexia nervosa. *J. Micronutr. Anal.* 2(3), 211-31.

Campbell, C., **Ward, N.I.**, Peet, M., 1986. Increased bromide levels in serum and hair during lithium treatment. *J. Affect. Disorders*, 11(2), 161-4. doi: 10.1016/0165-0327(86)90024-8

Naylor, G.J., Corrigan, F.H., Smith, A.H.W., Connelly, P., **Ward, N.I.**, 1986. Further studies of vanadium in depressive psychosis, *Brit. J. Psychiatry*, 150, 656-61.

Corrigan, F.M., Finlayson, J.D., Stevenson, G., Ashcroft, G.W., **Ward, N.I.**, 1987. Aluminium, zinc and other elements in serum in senile dementia of Alzheimer's type. *Trace Elements in Medicine*, 4(3), 117-11.

Corrigan, F.M., Finlayson, J.D., Muir, M., Ashcroft, G.W., **Ward, N.I.**, 1987. Multi-element analysis of serum in affective disorders. *Trace Elements in Medicine*, 4(4), 139-143.

Ward, N.I., Watson, R., Bryce-Smith, D., 1987. Placental element levels in relation to fetal development for obstetrically 'normal' births: A study of 37 elements, evidence for effects of cadmium, lead and zinc on fetal growth, and for smoking as a source of cadmium. *Int. J. Biosocial Research* 9(1), 63-81.

Kerr, S.A., Oliver, RA., Vittoz, P., Vivier, G., Hoyler, F., MacMahon, T.D., **Ward, N.I.**, 1987. Elemental concentrations in geochemical research samples by neutron capture prompt gamma-ray spectroscopy. *J. Radioanal. Nucl. Chem. Lett.* 113(1), 249-58.

Ward, N.I., MacMahon, T.D., Mason, J.A., 1987. Elemental analysis of human placenta by neutron irradiation and gamma-ray spectrometry (standard, prompt, and fast-neutron). *J. Radioanal. Nucl. Chem. Lett.* 113(2), 501-514.

Ward, N.I., Mason, J.A., 1987. Neutron activation analysis techniques for identifying elemental status in Alzheimer's disease. *J. Radioanal. Nucl. Chem. Lett.* 113(2), 515-26.

Ward, N.I., Kerr, S.A., Otsuka, T., 1987. Multielement content of coal by neutron activation analysis techniques. *J. Radioanal. Nucl. Chem. Lett.* 114(1), 113-123.

- Ward, N.I.**, Spyrou, N.M. Damyanova, A.A., 1987. Study of hair element content from an urban Bulgarian population using NAA assessment of environmental status. *J. Radioanal. Nucl. Chem. Lett.* 114(1), 125-135.
- Song, L.S., MacMahon, T.D., **Ward, N.I.**, 1987. Determination of 34 elements in Chinese geochemical standard reference materials by instrumental neutron-activation analysis. *J. Radioanal. Nucl. Chem. Lett.* 113(1), 285-98.
- Ward, N.I.**, 1987. Digestion vessels danger. *Int. Analyst*. 2, 7.
- Ward, N.I.**, 1987. The determination of boron in biological material by neutron irradiation and prompt gamma-ray spectrometry. *J. Radioanal. Nucl. Lett.* 110(2), 633-39.
- Bryce-Smith, D., **Ward, N.I.**, 1987. Lead and children. *Nature*, 330(6150), 703. ISSN: 0028-0836
- Davidson, D.L.W., **Ward, N.I.**, 1987. Abnormal aluminium, cobalt, manganese, strontium, and zinc concentrations in untreated epilepsy. *J. Epil. Res.*, 12(5), 323-330. doi: 10.1016/0920-1211(88)90041-1
- Campbell, C.A., Peet, M., **Ward, N.I.**, 1988. Vanadium and other trace elements in patients taking lithium. *Biol. Psychiatry*, 24(7), 775-81. doi: 10.1016/0006-3223(88)90253-3
- Ward, N.I.**, Walker, N., Ward, A.E., Hall, M.A., 1988. Trace element status of cerebrospinal fluid of individuals with neurological diseases by ICP-MS. *Trace Element Analytical Chemistry in Medicine and Biology*, 5, 513-520.
- Durrant, S.F., Walker, N., **Ward, N.I.**, 1988. Multielemental analysis of commercial baby milk food by ICPSMS and INAA. *Trace Element Analytical Chemistry in Medicine and Biology*, 5, 403-411.
- Durrant, S.F., **Ward, N.I.**, 1989. Multielemental analysis of human milk by inductively coupled plasma-source mass spectrometry: Implications for infant health. *J. Micronutrient Analysis*, 5, 111-126.
- Bishop, N., McGraw, M., **Ward, N.I.**, 1989. March 11th. Aluminium in infant formulas. *The Lancet (i)*, p 565.
- Bishop, N., McGraw, M., **Ward, N.I.**, 1989. March 4th. Aluminium in infant formulas. *The Lancet (i)*, p 490.
- Ward, N.I.**, 1988. Trace element analysis - The state of the art. *Brit. Homeopathy Research Group Communications No. 18*, 31-35.
- Corrigan, F.M., Reynolds, G.P., **Ward, N.I.**, 1989. Concentrations of elements in 3 brain regions in Alzheimer's disease (AD) and controls (C). *The Lancet (i)*, 268-9.
- VanRhijn, A., Corrigan, F.M., **Ward, N.I.**, 1989. Serum aluminium in senile dementia of Alzheimer's type and in multi-infarct dementia. *Trace Elements in Medicine*, 6(1), 24-2.

Kumar, R., Wright, I., Naylor, G.J., **Ward, N.I.**, 1988. Rubidium levels in manic depressive psychosis. *Med. Sci. Res.*, 61, 1091-98.

Ward, N.I., 1989. Inductively coupled plasma-source mass spectrometry in biological - medical studies for multielement ultra-trace analysis and isotope ratios. *Brit. Homeop. Research Grp. Communications no. 19, vol. 1*, 98-119.

Abou-Shakra, F.R., **Ward, N.I.**, Everard, D.M., 1989. The role of trace elements in male infertility. *Fertility and Sterility*, 52(2), 307-310. doi: 10.1016/s0015-0282(16)60860-9

Corrigan, F.M., Glen, A.I.M., Glen, E.M.T., Skinner, F.K., Horrobin, D.F., **Ward, N.I.**, 1989. Multielement and lipid analysis of blood in alcoholic subjects, *Trace Elements in Medicine*, 6(3). 108-113.

Davidson, D.L.W., **Ward, N.I.**, 1989. Abnormal aluminium, cobalt, manganese, strontium and zinc concentrations in untreated epilepsy. *Epilepsy Res.*, 2, 323-330. doi: 10.1016/0920-1211(88)90041-1

Kumar, R., Wright, I., Naylor, G.J., **Ward, N.I.** 1989. Caesium levels in manic depressive psychosis. *J. Affective Disorders*, 17, 17-19.

Naylor, G.J., Smith, A.H.W., McHarg, A., Walker, P.J., Shephard, B., **Ward, N.I.**, Harper, M., 1989. Raised serum aluminium concentration in Alzheimer's disease. *Trace Elements in Medicine*, 6(3), 93-95.

Stewart, J.C.M., Horrobin, D.F., Morse, P., **Ward, N.I.**, Abou-Shakra, F. 1989. Serum copper levels are elevated in seborrhoeic dermatitis. *Dermatology*, 121, 40-41.

Thompson, J., **Ward, N.I.**, 1989. The elemental composition of herbal remedies: Analysis by ICP-MS and FAAS. *J. Micronutr. Anal.*, 6(1), 85-96.

Abou-Shakra, F.R., Havercroft, J.M., **Ward, N.I.**, 1989. Lithium and boron in biological tissues and fluid, *Trace Elements in Medicine*, 6, (4), 142-6.

Bryce-Smith, D., **Ward, N.I.**, 1989. Aluminium and the blood-brain barrier, *J. Alternative and Complementary Med.*, June, p 9.

Corrigan, F.M., Reynolds, G.P., **Ward, N.I.**, 1990. Multi-element analysis of the frontal cortex, temporal cortex and basal ganglia in schizophrenia. *Trace Elements in Medicine*, 7(1), 1-7.
ISSN: 0174-7371

Ward, N.I., Durrant, S., Sankey, R.J., Bound, J.P., Bryce-Smith, D., 1990. Elemental factors in human fetal development. *Journal of Nutritional Medicine*, 1, 19-26. doi: 10.3109/13590849009003130

Ward, N.I., Soulsbury, K.A., Zettel, V.H., Colquhoun, I.D., Bunday, S., Barnes, B., 1990. The influence of the chemical additive tartrazine on the zinc status of hyperactive children - a

double-blind placebo-controlled study. *Journal of Nutritional Medicine*, 1, 51-57. doi: 10.3109/13590849009003134

Ward, N.I., 1990. Multielement contamination of British motorway environments. *The Science of the Total Environment*, 93, 393-401. doi: 10.1016/0048-9697(90)90130-M

Ward, N.I., 1990. Lead contamination of the London Orbital (M25) Motorway (since its opening in 1986). *The Science of the Total Environment*, 93, 277-283. doi: 10.1016/0048-9697(90)90117-d

Naylor, G.J., Sheperd, B., Treliving, L., McHarg, A., Smith, A., **Ward, N.I.**, Harper, M., 1990. Tissue aluminium concentrations stability over time, relationship to age, and dietary intake. *Biol. Psychiatry*, 27, 884-890.

Ward, N.I., Abou-Shakra, F.R., Durrant, S.F., 1990. Trace element content of biological materials. A comparison of NAA and ICP-MS analysis. *Biol. Trace Elem. Res.*, 26-7, 177-188. doi: 10.1007/BF02992671

Harvey, N.S., **Ward, N.I.**, 1991. Endogenous vanadium, rubidium and caesium in manic-depressive patients and their relations to lithium levels, *Lithium*, 2, 91-97.

Corrigan, F.M., Reynolds, G.P., **Ward, N.I.**, 1991. Reductions of zinc and selenium in brain in Alzheimer's disease. *Trace Elements in Medicine*, 8(1), 1-5.

Corrigan, F.M., Van Rhijn, A.G., Horrobin, D.F., Skinner, E.R., **Ward, N.I.**, 1990. Element lipid correlations in schizophrenia. *Trace Elements in Medicine*, 8(2), 101-105.

Ward, N.I., 1990. Assessment of zinc status and oral supplementation in anorexia nervosa. *J. Nutritional Medicine*, 1, 171-177. doi: 10.3109/13590849009003155

Corrigan, F.M., Besson, J.A.O., **Ward, N.I.**, 1991. Red cell caesium, lithium and selenium in abstinent alcoholics, *Alcohol and Alcoholism*, 26(3), 309-14. doi: 10.1093/oxfordjournals.alcalc.a045116

Corrigan, F.M., Van Rhijn, A.G., Ijomah, G., McIntyre, F., Skinner, E.R., Horrobin, D.F., **Ward, N.I.**, 1991. Tin and fatty acids in dementia. *Prostaglandins Leukotrienes and Essential Fatty Acids*, 43(4), 229-238.

Corrigan, F.M., Henderson, A.K., Van Rhijn, A.G., Coulter, F., Horrobin, D.F., **Ward, N.I.**, 1991. Serum concentrations of bromine and tin in hypertension and depression. *Trace Elements in Medicine*, 8(4), 199-201.

Corrigan, F.M., Skinner, E.R., MacIntyre, F., Ijomah, G., Holliday, J. Horrobin, D.F., **Ward, N.I.**, 1991. Plasma bromine concentrations and lipid profiles. *Clin. Chim. Acta*, 204(1-3), 301-304. doi:10.1016/0009-8981(91)90240-d

Gooddy, W., Burrows, E.H., Thompson, J., **Ward, N.I.**, Williams, T.R. 1992. Multi-element relationships and analysis of cerebrospinal fluid in unsolved problems of human diseases. *Trace Elements in Medicine*, 9(1), 1-6.

Corrigan, F.M., Ijomah, G., Holliday, J. Horrobin, D.F., Skinner, E.R., **Ward, N.I.**, 1992. Plasma and red cell cadmium, vanadium and tin in treated hypertensives. *Trace Elements in Medicine*, 9(2), 90-92.

Corrigan, F.M., Ijomah, G., Holliday, J., MacIntyre, F. Skinner, E.R., Horrobin, D.F., **Ward, N.I.**, 1992. Plasma vanadium concentrations, lipoproteins and fatty acids in elderly people living near a smelter and in a control area. *Trace Elements in Medicine*, 9(2), 93-96.

Abou-Shakra, F.R., Thompson, J., **Ward, N.I.**, 1992. System optimisation of the multi-element analysis of biological materials by inductively coupled plasma mass spectrometry. *Anal. Proced.*, 29, 6-7.

Ward, N.I., Durrant, S.F., Gray, A.L., 1992. Analysis of biological standard reference materials by laser ablation inductively coupled plasma-source mass spectrometry, *J. Anal. Atomic Spectrom.*, 7(7), 1139-1146. doi: 10.1039/JA9920701139

Harvey, N.S., Jarratt, J., **Ward, N.I.**, 1992. Trace elements and the electroencephalogram during long-term lithium treatment. *Brit. J. Psychiatry*, 160, 654-8. doi: 10.1192/bjp.160.5.654

Corrigan, F.M., Crichton, J.S., **Ward, N.I.**, Horrobin, D.F., 1992. Blood tin concentrations in Alzheimer's disease. *Biol. Psychiatry*, 31(7), 749-50. doi: 10.1016/0006-3223(92)90288-b

Corrigan, F.M., Crichton, J.S., Van Rhijn, A.G., Skinner, E.R., **Ward, N.I.**, 1992. Transferrin, cholesterol and aluminium in Alzheimer's disease, *Clin. Chim. Acta*, 211(1-2), 121-123. doi: 10.1016/0009-8981(92)90111-3

Stroh, A., Völlkopf, U., Gregoire, D.C., Lowe, D.S., Stahl, R.G., Abou-Shakra, F.R., Thompson, **Ward, N.I.**, Pearce, N.J., Perkins, W.T., Fuge, R., Tanner, S.D., Magyar, B., Cousin, H., Aeschlimano, B., Ulrich, A., Dannecker, W., Meiners, S., 1992. Fourth Surrey conference on plasma source mass spectrometry. *Anal. Proc.*, 29, 274-284. doi: 10.1039/AP9929900274.

Durrant, S.F., **Ward, N.I.**, 1993. Rapid multielemental analysis of Chinese reference soils by laser ablation inductively coupled plasma-source mass spectrometry, *Fresenius J. Anal. Chem.*, 345(7), 512-17.

Ijomah, G., Corrigan, F.M., Holliday, J., MacIntyre, F., Skinner, E.R., **Ward, N.I.**, Horrobin, D.F., 1993. Aluminium, cadmium, lipids and prevalence of dementia in people living near an aluminium smelter, *Trace Elements in Medicine*, 10(1), 6-12. ISSN: 0174-7371

Ward, N.I., Abou-Shakra, F., 1993. Determination of lithium in biological material by inductively coupled plasma-mass spectrometry (ICP-MS), *Bipolar Disorder - An Update*, 6, The Medicine Group (Education) Ltd, Abingdon, 7-8.

Harvey, N., Jarratt, J., **Ward, N.I.**, 1993. Lithium-induced increase in endogenous bromine relates to lithium's therapeutic efficacy, *Bipolar Disorder - An Update*, 6, The Medicine Group (Education) Ltd, Abingdon, 9.

Corrigan, F.M., Reynolds, G.P., **Ward, N.I.**, 1993. Hippocampal tin, aluminium and zinc in Alzheimer's disease. *BioMetals*, 6(3), 149-154. doi: 10.1007/BF00205853

Keattch, C.J., Lindon, J.C., Young, R.A., Watts, J.F., Blackburn, R., McGrail, P.T., Dyer, A., Newman, E.J., Caddy, B., Ruane, R.J., **Ward, N.I.**, Deas, A.H.B., 1993. Book reviews, *Analyst*, 118, 141N-146N.

Durrant, S.F., **Ward, N.I.**, 1994. Laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) for the multielement analysis of biological materials: a feasibility study. *Food Chemistry (Analytical Methods Section)*, 49(3), 317-323. doi: 10.1007/978-1-4939-7051-3_11

Ward, N.I., Savage, J.M., 1994. Elemental status of grazing animals located adjacent to the London Orbital (M25) motorway. *Sci. Tot. Environ.*, 146/147, 185-189. doi: 10.1016/0048-9697(94)90236-4

Ward, N.I., Savage, J.M., 1994. Metal dispersion and transportation activities using food crops as biomonitor. *Sci. Tot. Environ.*, 146/147, 309-319. doi: 10.1016/0048-9697(94)90251-8

Ogunsola, O.J., Oluwole, A.F., Asubiojo, O.I., Olaniyi, H.B., Akeredolu, F.A., Akanle, O.A., Spyrou, N.M., **Ward, N.I.**, Ruck, W., 1994. Traffic pollution: preliminary elemental characterisation of roadside dust in Lagos, Nigeria. *Sci. Tot. Environ.*, 146/147, 175-184. doi:10.1007/bf02040153

Godlewska, B., Hulanicki, A., Abou-Shakra, F.R., **Ward, N.I.**, 1994. Determination of trace amounts of cobalt in blood, *Anal. Lett.*, 27(14), 2647-2662. doi: 10.1080/00032719408005997

Wilson, H.M., Skinner, E.R., Patel, J.C., **Ward, N.I.**, Corrigan, F.M., 1994 Selenium, cobalt, and other elements in plasma from patients with acute myocardial infarction, *Trace Elements in Medicine*, 11(3), 135-138.

Williams, C.A., Abou-Shakra, F.R., **Ward, N.I.**, 1995. Investigations into the use of inductively coupled plasma mass spectrometry for the determination of gold in plant materials, *Analyst*, 120(2), 341-346. doi: 10.1039/AN9952000341

Gibb, R.C., Corrigan, F.M., Gaskell, D.F., **Ward, N.I.**, 1995. Serial cesium analysis in alcohol dependence syndrome, *Trace Elements and Electrolytes*, 12(3), 122-124.

Ward, N.I., 1995. Preconceptual care and pregnancy outcome. *Journal of Nutritional and Environmental Medicine*, 5, 205-208. doi: 10.3109/13590849509000218

Gibb, R.C., Corrigan, F.M., Welsh, S., Smith, I., **Ward, N.I.**, 1996. Elevation of serum cesium in alcoholic dementia, *Trace Elements and Electrolytes*, 13, 205-207. ISSN: 0946-2104

Kang, J., Zettel, V.H., **Ward, N.I.**, 1996. The organophosphate pesticides, *Journal of Nutritional and Environmental Medicine*, 5, 325-339. doi. 10.3109/13590849509007239

Rayman, M.P., Abou-Shakra, F.R., **Ward, N.I.**, 1996. Determination of selenium in blood serum by hydride generation inductively coupled plasma mass spectrometry. *Journal of Analytical Atomic Spectrometry*, 11(1), 61-68. doi: <https://doi.org/10.1039/ja9961100061>

Rayman, M.P., Abou-Shakra, F.R., **Ward, N.I.**, Redman, C.W.G., 1996. Comparison of selenium levels in pre-eclamptic and normal pregnancies. *Biological Trace Element Research*, 55(1-2), 9-20. doi: 10.1007/BF02784164

Abou-Shakra, F.R., Rayman, M.P., **Ward, N.I.**, Hotton, V., Bastein, G., 1996. Enzymatic digestion for the determination of trace elements in blood serum by inductively coupled plasma mass spectrometry, *Journal of Analytical Atomic Spectrometry*, 12(4), 429-433.

Wilson, H.M., Corrigan, F.M., Skinner, E.R., Patel, J.C., **Ward, N.I.**, Horrobin, D.F., 1996. Tin and low-density lipoprotein fatty acids in plasma from patients with acute myocardial infarction. *Trace Elements and Electrolytes*, 14(2), 66-68. ISSN: 0946-2104

Asubiojo, O.I., Nkono, N.A., Ogunsua, A.O., Olywole, A.F., **Ward, N.I.**, Akanle, O.A., Spyrou, N.M., 1997. Trace elements in drinking and groundwater samples in Southern Nigeria. *Sci. Total Environ.* 208(1-2), 1-8. doi: 10.1016/s0048-9697(97)00178-2

Ward, N.I., Stovell, A., 1997. Preconceptual care and fertility cases involving IVF failures. *Journal of Nutritional and Environmental Medicine*, 7, 370- 388.
doi:10.3109/13590849509000218

Ward, N.I., 1997. Assessment of chemical factors in relation to child hyperactivity. *Journal of Nutritional and Environmental Medicine*, 7, 333-342. doi. 10.1080/13590849762466

Williams, I.D., McCrae, I.S., **Ward, N.I.**, Richmond, N.A. 1998. Roadside particulate and trace element concentrations at four London Sites. *Int. J. Vehicle Design*, 20(1-4) (Special Issue), 21-29. doi: 10.1504/ijvd.1998.001847

Downey, J.S., Bingle, C.D., Cottrell, S., **Ward, N.I.**, Churchman, D., Dobrota, M., Powell, C.J., 1998. The LEC rat possesses reduced hepatic selenium, contributing to the severity of spontaneous hepatitis and sensitivity to carcinogenesis. *Biochemical and Biophysical Research Communications*, 244, 463 – 467.

Hares, R.J., **Ward, N.I.**, 1999. Comparison of the heavy metal content of motorway stormwater following discharge into wet biofiltration and dry detention ponds along the London Orbital (M25) motorway. *The Science of the Total Environment*, 235, 169-178. doi: 10.1016/s0048-9697(99)00210-7

Ward, N.I., 1999. Trace element requirements in pregnancy: comparison between Crete (Greece) and Oxford (England). *The Nutritional Practitioner*, (1,2), 16- 19.

Ward, N.I., 2000. Chemical substances and human behaviour. *The Nutrition Practitioner*, 2.2, 43-45.

Ward, N.I., Stead, K., Reeves, J., 2001. Impact of endomycorrhizal Fungi on plant trace element uptake and nutrition, *The Nutritional Practitioner*, 3.2, 30-31.

Ward, N.I., 2001. The Hyperactive Children's Support Group, *The Nutrition Practitioner*, 3.1, 52.

Abou-Shakra, F.R., Walker, H., Adair, J., **Ward, N.I.**, 2001. Selenium speciation in biological fluids: an analytical approach to a supplementation study, *Federation of Analytical Chemistry and Spectroscopy Societies (FACSS)*, 22-25.

Ward, N.I., 2001. Hyperactivity and a previous history of antibiotic usage. *The Nutrition Practitioner*, 3.3, 12-3.

Ward, N.I., Entwistle, A., Zettel, V.H., 2003. Human nails for assessing trace elements. *The Nutrition Practitioner*, 4(2), 41-2.

Kamalakkannan, R., Zettel, V., Goubatchev, A., Stead-Dexter, K., **Ward, N.I.**, 2004. Chemical (polycyclic aromatic hydrocarbons and heavy metals) levels in contaminated stormwater and sediments from a motorway dry detention pond drainage system. *J. Environ. Monitor.* 6(3), 175-181. doi: 10.1039/b309384k

Ward, N.I., Jefferies, A. 2004. 'The Analytical Club': A unique cooperative education link between industry and academia. *Asia-Pacific Journal of Cooperative Education*, 5(1) 15-18. http://www.apjce.org/files/APJCE_05_1_15_18.pdf

Ward, N.I., Laslett, R.L. 2004. International cooperative education student exchange program: Lessons from the chemistry experience. *Asia-Pacific Journal of Cooperative Education*, 5(1) 18-21.http://www.apjce.org/files/APJCE_05_1_18_21.pdf

Ward, N.I., Frost, R., Yonge, L. 2004. International co-operative education: The European experience for students in Chemistry. *Asia-Pacific Journal of Cooperative Education*, 5(1) 27-34. http://www.apjce.org/files/APJCE_05_1_27_34.pdf

Ward, N.I., Hammond, N., Marcilla, A., Brion, V., Mujica, M.G., 2004. Community-based research projects: A new educational link experience for academia and industry in Rio Negro, Argentina. *Asia-Pacific Journal of Cooperative Education*, 5(1) 50-59. http://www.apjce.org/files/APJCE_05_1_50_59.pdf

Ward, N.I., 2004 Trace element composition and bioavailability of human breast milk and infant formula. *The Nutrition Practitioner*, 5(1), 11-3.

Stead-Dexter, K., **Ward, N.I.**, 2004. Mobility of heavy metals within freshwater sediments affected by motorway stormwater. *Sci. Tot. Environ.*, 334-335, 271-277. doi: 10.1016/j.scitotenv.2004.04.076

Ward, N.I., Dudding, L.M., 2004. Platinum in motorway (M25 London Orbital) dust samples. *Sci. Tot. Environ.*, 334-335, 457-463. doi: 10.1016/j.scitotenv.2004.04.049

Pitcher, S. K., Slade, R.C.T., **Ward, N.I.**, 2004. Heavy metal removal from motorway stormwater using ion exchange materials. *Sci. Tot. Environ.*, 334-335, 161-166. doi: 10.1016/j.scitotenv.2004.04.035

- Hares, R.J., **Ward, N.I.**, 2004. Sediment accumulation in newly constructed vegetative treatment facilities along a new major road. *Sci. Tot. Environ.*, 334-335, 473-479. doi: 10.1016/j.scitotenv.2004.04.051
- Powell, K.M., Slade, R.C.T., **Ward, N.I.**, 2004. Templated synthesis of tailored clays (based on sol-gel techniques) to yield increased pore volumes for sorption and exchange. *J. Sol-Gel Science and Technology*, 31 (1-3), 157-160. doi: 10.4236/angp.2013.22025
- Durrant, S.F., **Ward, N.I.**, 2005. Recent biological and environmental applications of laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS). *J. Anal. At. Spectrom.*, 20, 821-829. doi.org/10.1039/b502206a
- Ewen, C., Anagnostopoulou, M.A., **Ward, N.I.**, 2009. Monitoring of heavy metal levels in roadside dusts of Thessaloniki, Greece in relation to motor vehicle density and flow. *Environmental Monitoring and Assessment*, 157(1-4), 483-498. doi: <https://doi.org/10.1007/s10661-008-0550-9>
- Watts, M.J., O'Reilly, J., Maricelli, A., Coleman, A., Ander, E.L., **Ward, N.I.**, 2010. A snapshot of environmental iodine and selenium in La Pampa and San Juan provinces of Argentina. *Journal of Geochemical Exploration*, 107, 87-93. doi: <https://doi.org/10.1016/j.gexplo.2009.11.002>
- Watts, M.J., O'Reilly, J., Marcilla, A.L., Shaw, R.A., **Ward, N.I.**, 2010. Field-based speciation of arsenic in UK and Argentinean water. *Environmental Geochemistry and Health*, 32(6), 479-90. doi: 10.1007/s10653-010-9321-y
- O'Reilly, J., Watts, M.J., Shaw, R.A., Marcilla, A.L., **Ward, N.I.**, 2010. Arsenic contamination of natural waters in San Juan and La Pampa, Argentina. *Environmental Geochemistry and Health*, 32(6), 491-515. doi: 10.1007/s10653-010-9317-7
- Bright, N.J., Webb, R.P., Bleay, S., Hinder, S., **Ward, N.I.**, Watts, J.F., Kirkby, K.J., Bailey, M.J., 2012. Determination of the deposition order of overlapping latent fingerprints and inks using secondary ion mass spectrometry. *Analytical Chemistry*, 84(9), 4083-87. doi:10.1021/ac300185j
- Farnfield, H.R., Marcilla, A.L., **Ward, N.I.**, 2012. Arsenic speciation and trace element analysis of volcanic río Agrio and the geothermal waters of Copahue, Argentina. *Science of the Total Environment*, 433, 371-78. doi: 10.1016/j.scitotenv.2012.05.098
- Christodoulidou, M., Charalambous, C., Aletrari, M., Nicolaïdou Kanari, P., Petronida, A., **Ward, N.I.**, 2012. Arsenic concentrations in groundwaters of Cyprus. *J. Hydrology*, 468-469, 94-100. doi: 10.1016/j.jconhyd.2008.04.001
- Ugarte, M., Grime, G.W., Lord, G., Geraki, K., Collingwood, J.F., Finnegan, M.E., Farnfield, H., Merchant, M., Bailey, M.J., **Ward, N.I.**, Foster, P.J., Bishop, P.N., Osborne, N.N., 2012. Concentration of various trace elements in the rat retina and their distribution in different structures. *Metallomics*, 4(12), 1245-1254. doi: 10.1039/c2mt20157g

Lord, G., Kim, N., **Ward, N.I.**, 2012. Arsenic speciation of geothermal waters in New Zealand., *Journal of Environmental Monitoring*, 14(12), 3192-3201. doi: <https://doi.org/10.1039/c2em30486d>

Bright, N.J., Willson, T.R., Driscoll, D.J., Reddy, S.M., Webb, R.P., Bleay, S., **Ward, N.I.**, Kirkby, K.J., Bailey, M.J., 2013. Chemical changes exhibited by latent fingerprints after exposure to vacuum conditions. *Forensic Science International*, 2030(1-3), 81-86. doi: [10.1016/j.forsciint.2013.03.047](https://doi.org/10.1016/j.forsciint.2013.03.047)

Christopher, M.E., Warmenhoeven, J-W., Romolo, F.S., Donghi, M., Webb, R.P., Jeynes, C., **Ward, N.I.**, Kirkby, K.J., Bailey, M.J., 2013. A new quantitative method for gunshot residue analysis by ion beam analysis. *Analyst*, 138(16), 4649-4655. doi: [10.1039/C3AN00597F](https://doi.org/10.1039/C3AN00597F)

Romolo, F.S., Christopher, M.E., Donghi, M., Ripani, L., Jeynes, C., Webb, R.P., **Ward, N.I.**, Kirkby, K.J., Bailey, M.J., 2013. Integrated ion beam analysis (IBA) in gunshot residue (GRS) characterisation. *Forensic Science International*, 231, 219-228. doi: [10.1016/j.forsciint.2013.05.006](https://doi.org/10.1016/j.forsciint.2013.05.006)

Karatela, S., **Ward, N. I.**, 2016. Trace elements and human obesity: An overview. *Manipal J. Nursing Health Sciences*, 2(2), 50-59.
https://ejournal.manipal.edu/mjnhs/journal_home.aspx

Al Rawahi, W.A., **Ward, N.I.**, 2017. Field-based application of developed solid phase extraction with inductively coupled plasma mass spectrometry for vanadium speciation analysis of groundwaters from Argentina. *Talanta*, 165, 391-397. doi: [10.1016/j.talanta.2016.12.078](https://doi.org/10.1016/j.talanta.2016.12.078)

Karatela, S., Paterson, J., **Ward, N.I.**, 2017. Domain specific effects of postnatal toenail methylmercury exposure on child behaviour. *J. Trace Elements in Medicine and Biology*, 41, 10-15. doi: [10.1016/j.jtemb.2017.01.003](https://doi.org/10.1016/j.jtemb.2017.01.003)

Mohamud, H., van Es, E.M., Sainsbury, T., Ivanov, P., Russell, B., Regan, P.H., **Ward, N.I.**, 2017. Progress towards the development of a rapid analytical approach for separation of ²²⁶Ra using dibenzo-18-crown-6 ether functionalised silica (SiO₂) disks, *Radiation Physics and Chemistry*, 140, 57-60. doi: [10.1016/j.radphyschem.2017.02.020](https://doi.org/10.1016/j.radphyschem.2017.02.020)

Baker, J.A., Ward, N.I., 2018. Determination of minor elements of human scalp hair from Karbala, Iraq. *J. Physics Conf. Series* 1032, 012067. doi : [10.1088/1742-6596/1032/1/012067](https://doi.org/10.1088/1742-6596/1032/1/012067)

Alsubaie, A., Jaafar, M., Al-Dabbous, A.N., Alomairy, S., Altowairqi, Y., Daar, E., Alkhorayef, M., Alsulaiti, L., Almugren, K.S., **Ward, N.I.**, Bradley, D.A., 2019. A comparison of elemental presence in UK and Kuwait road dust. *Radiation Physics and Chemistry*, 155, 341-347. doi: [10.1016/j.radphyschem.2018.08.020](https://doi.org/10.1016/j.radphyschem.2018.08.020)

Alsubaie, A., Alsulaiti, A., Al-Dabbous, A.N., Chamakh, M., Jaafar, M., Daar, E., Alanzi, A.H., Altowairqi, Y., Podolyak, Z., **Ward, N.I.**, Bradley, D.A., 2019. A comparison of elemental presence in Riyadh and Doha road dust. *Radiation Physics and Chemistry*, 154, 58-63. doi: [10.1016/j.radphyschem.2018.06.045](https://doi.org/10.1016/j.radphyschem.2018.06.045)

Jaafar, M., Marcilla, A.F., Felipe-Sotelo, M., **Ward, N.I.**, 2018. Effect of food preparation using naturally-contaminated groundwater from La Pampa, Argentina: Estimation of elemental dietary intake from rice and drinking water. *Food Chemistry*, 246, 258-265. doi: 10.1016/j.foodchem.2017.11.019

Mohamud, H., Ivanov, P., Russell, B.C., Regan, P.H., **Ward, N.I.**, 2018. Selective sorption of uranium from aqueous solution by graphene oxide-modified materials. *J. Radioanalytical and Nuclear Chemistry*, 316(2), 839-848. doi: 10.1007/s10967-018-5741-4

Karatela, S., **Ward, N.I.**, Zeng, I.S., Paterson, J., 2018. Status and interrelationship of toenail elements in Pacific children. *J. Trace Elem. Med. Biol.*, 46, 10-16. doi: 10.1016/j.jtemb.2017.11.004.

Karatela, S., **Ward, N.I.**, Paterson, J., 2019. Mercury exposure in mother-children pairs in a seafood eating population: Body burden and related factors. *Int. J. Environ. Res. Public Health*, 16(12), 2238, pp13. doi: 10.3390/ijerph16122238.

Karatela, S., Coomarasamy, C., Paterson, J., **Ward, N.I.**, 2019. Household smoking status and heavy metal concentrations in toenails of children. *Int. J. Environ. Res. Public Health*, 16(20), 3871, pp12. doi: [10.3390/ijerph16203871](https://doi.org/10.3390/ijerph16203871).

Anagnostopoulou, M.A., **Ward, N.I.**, 2019. Determination of arsenic, copper and lead in the water of villages of Chalkidiki, Greece. *Open Journal of Chemistry* 5(1), 030-034. doi: 10.17352/ojc.000014

Smith, R.E., Totti, S., Velliou, E., Campagnolo, P., Hingley-Wilson, S.M., **Ward, N.I.**, Varcoe, J.R., Crean, C., 2019. Development of a novel highly conductive and flexible cotton yarn for wearable pH sensor technology. *Sensors and Actuators B: Chemical*, 287, 338-345. doi: 10.1016/j.snb.2019.01.088

Matta, F.V., Xiong, J., Lila, M.A., **Ward, N.I.**, Felipe-Sotelo, M., Esposito, D., 2020. Chemical composition and bioactive properties of commercial and non-commercial purple and white açaí berries. *Foods*, 9(10), 1481, pp16 doi: 10.3390/foods9101481.

Xiong, J., Matta, F.V., Grace, M., Lila, M.A., **Ward, N.I.**, Felipe-Sotelo, M., Esposito, D., 2020. Phenolic content, anti-inflammatory, and dermal wound repair properties of industrially processed and non-processed acai from the Brazilian Amazon. *Food & Function, RSC Online*, 11(6), 4903-4914. doi: 10.1039/C9FO03109J.

Yusuf, I., Flagiello, F., Ward, N.I., Arellano-García, H., Avignone-Rossa, C., Felipe-Sotelo, M., 2020. Valorisation of banana peels by hydrothermal carbonisation: Potential use of the hydrochar and liquid by-product for water purification and energy conversion. *Bioresource Technology Reports*, 12, 100582. doi: 10.1016/j.biteb.2020.100582

Karatela, S., Coomarasamy, C., Paterson, J., Ward, N.I., 2020. Exposure to toenail heavy metals and child behavior problems in nine-year-old children: A cross-sectional study. *In. J. Environ. Research Public Health*, 17, 4120, pp12. doi: 10.3390/ijerph17114120

Santos, G.A., Carvalho, A.A.C., Oliveira, A.P., Naozuka, J., Matta, F.V., Felipe-Sotelo, M., **Ward, N.I.**, Corrêa, C.F.N., Nomura, C.S., 2021. Bioaccessibility of essential elements in açaí (*Euterpe oleracea* Mart.) pulp. *ACS Food Sci. Technol.*, 1 (5), 874–883. doi: 10.1021/acsfoodscitech.1c00070.

Jaafar, M., Shrivastava, A., Bose, S.R., Felipe-Sotelo, M., **Ward, N.I.**, 2021. Transfer of arsenic, manganese and iron from water to soil and rice plants: An evaluation of changes in dietary intake caused by washing and cooking rice with groundwater from the Bengal Delta, India. *Journal of Food Composition and Analysis*, 96, 103748, pp10. doi: 10.1016/j.jfca.2020.103748

Lawson-Wood, K., Jaafar, M., Felipe-Sotelo, M., **Ward, N.I.**, 2021. Investigation of the uptake of molybdenum by plants from Argentinean groundwater. *Environ. Sci. Pollut. Res. Int.*, 28(35), 48929-48941. doi: 10.1007/s11356-021-13902-w

Joda, B.A., **Ward, N.I.**, 2021. Use of human teardrop fluid for the determination of trace elements in healthy individuals and diabetic patients. *J. Trace Elem. Med. Biol.* 65, 126733. doi: 10.1016/j.jtemb.2021.126733

Yusuf, I., Flagiello, F., **Ward, N.I.**, Arellano-García, H., Avignone-Rossa, C., Felipe-Sotelo, M., 2020. [Valorisation of banana peels by hydrothermal carbonisation: Potential use of the hydrochar and liquid by-product for water purification and energy conversion](#), *Bioresource Technology Reports* 12100582, Elsevier Ltd. doi: 10.1016/j.biteb.2020.100582

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Shamshad Karatela, Neil I Ward, Janis Paterson, Irene S.L. Zeng. Environmental Influences on the Behavioural and Emotional Outcomes of Children: A Network Analysis. July 2022. *International Journal of Environmental Research and Public Health* 19(14):8479
DOI: 10.3390/ijerph19148479/10.3390/ijerph19148479

Hyperactivity papers

Ward, N.I., Soulsbury, K.A., Zettel, V.H., Colquhoun, I.D., Bunday, S., Barnes, B., 1990. The influence of the chemical additive tartrazine on the zinc status of hyperactive children - a double-blind placebo-controlled study. *Journal of Nutritional Medicine*, 1, 51-57. doi: 10.3109/13590849009003134

Ward, N.I., 1997. Assessment of chemical factors in relation to child hyperactivity. *Journal of Nutritional and Environmental Medicine*, 7, 333-342. doi. 10.1080/13590849762466

Ward, N.I., 2000. Chemical substances and human behaviour. *The Nutrition Practitioner*, 2.2, 43-45

Ward, N.I., 2001. The Hyperactive Children's Support Group, *The Nutrition Practitioner*, 3.1, 52.

Ward, N.I., 2001. Hyperactivity and a previous history of antibiotic usage. *The Nutrition Practitioner*, 3.3, 12-3.

Karatela, S., Coomarasamy, C., Paterson, J., Ward, N.I., 2020. Exposure to toenail heavy metals and child behavior problems in nine-year-old children: A cross-sectional study. In. *J. Environ. Research Public Health*, 17, 4120, pp12. doi: 10.3390/ijerph17114120