

1. O W Howarth and R J Lynch, "A carbon-13 nuclear magnetic resonance study of tetraiodomethane", *Molecular Physics*, **15**, 431 (1968).
2. J C Hammel, R J Lynch, J A S Smith, A Barabas and E Isfan, "Electric field effects in magnetic resonance. II Chlorine-35 quadrupole resonance frequencies". *Journal of the Chemical Society (A)* 3000 (1969).
3. C J Ludman, R J Lynch, J A Salthouse, J A S Smith, and T C Waddington, " Nuclear quadrupole resonance and the structure of the dichloride ion,  $\text{HCl}_2^-$ ". *Chemical Communications*, 405, (1970).
4. K B Dillon, R J Lynch, R N Reeve and T C Waddington, " A  $^{31}\text{P}$  n.m.r. and  $^{35}\text{Cl}$  n.q.r. investigation of some hexachlorophosphates". *Journal of Inorganic and Nuclear Chemistry*, **36**, 815, (1974).
5. R J Lynch and T C Waddington, " Chlorine-35 quadrupole resonance studies of some group V compounds" *Advances in Nuclear Quadrupole Resonance*, Editor: J A S Smith, Heyden, London **1**, 37 (1974).  
This work was presented at the first International NQR Symposium at Queen Elizabeth College, London, in 1972. A further paper on related work was presented at the second International NQR Symposium in Viareggio, Italy in 1973.
6. R J Lynch, "Nuclear Quadrupole Resonance Spectroscopy", a chapter in "Spectroscopy" an undergraduate and graduate text, edited by B P Straughan and S Walker, 2nd edition, **1**, chapter 2, Chapman and Hall, London, 1976.
7. K B Dillon, R J Lynch, R N Reeve and T C Waddington, " Solid state  $^{31}\text{P}$  n.m.r. and  $^{35}\text{Cl}$  n.q.r. studies of some alkyl and aryl chlorophosphoranes, and their addition compounds with Lewis acids. " *Journal of the Chemical Society (Dalton)* 1243, (1976).
8. K B Dillon, R J Lynch and T C Waddington, " Structural studies on organoarsenic V compounds by means of  $^{35}\text{Cl}$  quadrupole resonance spectroscopy " *Journal of the Chemical Society (Dalton)* 1478, (1976).
9. R J Lynch, J A S Smith and T C Waddington, " Studies of hydrogen bonding in chlorocarboxylate anions using  $^{35}\text{Cl}$  quadrupole resonance spectroscopy" *Journal of the Chemical Society (Faraday II)*, **72**, 1980, (1976).
10. J E Campbell, M Hewins, R J Lynch and D D Shrewsbury, "Temperature effects on liquid chromatographic absorbance stability at low wavelengths" *Chromatographia*, **16**, 162, (1982).
11. R J Lynch, M J Girling and R J Dolphin, "Analysis optimisation for complex samples by HPLC with multichannel UV detection" *presented at the 7th International Symposium on Column Liquid Chromatography*, Baden-Baden, 1983.
12. J N Brown, M Hewins, J H M van de Linden and R J Lynch, Solvent degassing and other factors affecting LC detection stability, *International Labmate*, **10**, issue 6, 38, (1985).

13. P van de Weijer, B H Zwerver and R J Lynch, "Spectroscopic Investigation of the mechanism of the alkali bead detector for gas chromatography" *Analytical Chemistry*, **60**, 1380, (1988).
14. P J Naish, R J Lynch and T Blaffert, A study of the practical limitations of principal components analysis and the labelling of unresolved HPLC peaks" *Chromatographia*, **27**, 343, (1989).
15. P J Naish-Chamberlain, and R J Lynch, "Evaluation of a complete HPLC solvent optimisation system involving piece-wise quadratic modelling" *Chromatographia*, **29**, 79, (1990).  
This work was also presented at SAC '89, The Royal Society of Chemistry Analytical Division, Cambridge, 1989.
16. R J Lynch and G Measures, " A practical HPLC solvent optimisation system" *Laboratory Practice*, 39, number 1, 61, (1990).
17. R J Lynch, J T Hann and G Measures" The use of a practical interpretive solvent optimisation system in LC method development" *Presented at the 18th International Symposium on Chromatography*, Amsterdam, 1990.
18. R J Lynch G Measures and N Warren, "Lösungsmittel-optimierungssystem für HPLC Anwendungen" *Labor Praxis*, Dezember 1990, 1028
19. R J Lynch, S D Patterson and R E A Escott, "The use of an interpretive solvent optimisation system for the separation of positional isomers" *LC-GC International*, **3** , number 9, 54, (September 1990).
20. R J Lynch, G Measures and J T Hann, "The use of a practical interpretive solvent optimisation system in method development" *presented at the Amsterdam International Chromatography Symposium*, 1990.
21. P J Schoenmakers and R J Lynch, "Expert systems for method development in HPLC" *presented at the 1991 Pittsburgh conference, Chicago*, 1991. Paper 509.
22. R J Lynch, "Optimising the separation of selected peaks: an example of the use of solvent optimisation software in pharmaceutical analysis". *Unicam Application note*.
23. R J Lynch, " Application of interpretive solvent optimisation software to method development in pharmaceutical analysis". *Unicam Application note*.
24. N Perez-Souto, R J Lynch, G Measures and J T Hann, " Use of high performance liquid chromatographic peak deconvolution and peak labelling to identify antiparasitic components in plant extracts", *Journal of Chromatography*, 593, 209, (1992).  
This work was also presented at the 15th International Symposium on Column Liquid Chromatography, Basle, 1991.
25. R J Lynch, J C Pearce and A I Pereira, " The use of a multivariate optimisation system in the development of HPLC methods for bioanalysis" *presented at the 19th International Chromatography Symposium, Aix - en Provence*, 1992.
26. R J Lynch, J C Pearce and A I Pereira, "Optimisation of pH and solvent strength in HPLC bioanalysis using a multivariate optimisation system" *presented at Pittcon '93 at Atlanta, 1993, poster No. 444P*.

27. M A van Straten, R J Lynch, and H A Claessens. "The role of stationary phases in reversed phase liquid chromatography in the application of solvent optimisation procedures." *LC GC International*, **8**, 143, 1995..

28. R J Lynch and P A James, " The evaluation of a new cool on-column GC injector" *presented at the 20th International Symposium on Chromatography, Bournemouth, 1994.*

#### **Since joining the Department:**

29. M.C Barbosa, R J Lynch, and J.D McKinley, "Migration of aqueous acetone and potassium chloride through kaolin: minidrum centrifuge test CBLC1", *Cambridge University Engineering Department Technical Report CUED/D-SOILS/TR.284* (1995).

30. K Soga, J D McKinley, R J Lynch, and M Carrier, "Current investigations into soil characterisation, contaminant transport modelling, and sensor technology, at Cambridge University Engineering Department". *Soil and Groundwater Technology Association Conference, Runcorn, 1995.*

31. R J Lynch and M D Bolton, "A low cost fibre optic pH sensor for the in-situ measurement of groundwater", *Proceedings of the International Society of Optical Engineering, (SPIE), 2835 (Advanced Technologies for Environmental Monitoring and Remediation, Denver, Colorado),221, (1996).*

32. M D Bolton, M Carrier, J J C Loroy, R J Lynch, J D McKinley, M Penn, L J Potter, B A Price, A N Schofield and K Soga, "Contaminated Land Research at Cambridge University Engineering Department", *a poster presented at the inaugural meeting of NICOLE, a network for industrially contaminated land in Europe, Hanover, May 1996.*

33. R J Lynch, "Advances in monitoring and in-situ measurement of contaminants in soil", *NICOLE Workshop on contaminated land monitoring and measurement, Brighton, May 1997.*

34. A C J Treadaway, R J Lynch and M D Bolton, "Pollution transport studies using an in-situ fibre-optic photometric sensor", *Geoenvironmental Engineering, Edited by R N Yong and H R Thomas, Thomas Telford Publishing, London, pp151-60, (1997). This work was presented at the BGS Geoenvironmental Engineering Conference, University of Wales, Cardiff, September 1997.*

35. J D McKinley, B A Price, R J Lynch and A N Schofield, "Centrifuge modelling the transport of a pulse of two contaminants through a clay layer" *Geotechnique 48 No 3, 421-425, (1998).*

36. R J Lynch, "Detecting non-aqueous phase pollutants in soils using a probe based on refractive index changes" *Presented at a Seminar on Contaminants in Freezing Ground, Fitzwilliam College, Cambridge, July 1997.*

37. A C J Treadaway, R J Lynch, M D Bolton and H Barker, "Pollutant tracking with in-situ photometric sensors in a geotechnical centrifuge", *Environmental Geotechnics, P S Seco e Pinto (ed)., Balkema, Rotterdam 441-446, (1998). Proceedings of Third International Congress on Environmental Geotechnics, Lisbon, September 1998,*

38. J Garnier, L Thorel, R Lynch, M Bolton, C Kechavarzi, A Treadaway, H Coumoulos, K Soga, D König, A Rezzoug, G Heibroek, F Weststrate, J van der Poel, O Oung, R Shrijver, R Taylor, S Robson, S Spiessl, H Allersma, G Esposito, M Davies, S Burkhart, C Merrifield and W Craig, " NECER Network of European Centrifuges for Environmental

Geotechnic Research" . *Centrifuge 98*, T Kimura, O Kusakabe and J Takemura eds. Balkema, Rotterdam, **2**, p957 (2000). Presented at the international conference: *Centrifuge 98 in Tokyo, September 1998*

39. A C J Treadaway, R J Lynch and M D Bolton, "Pollution transport studies using an in-situ fibre-optic photometric sensor", *Engineering Geology* 53, 195-204, (1998).

40. R J Lynch, A C J Treadaway, G Bailey, M D Bolton, S G Chandler, C H Collison, P Sentenac., J A Garrett, C A Santos, and M A G Silva, "Fibre-optic photometric probes for tracking groundwater pollutant tracers in geotechnical centrifuge studies" *Int. Symp. On Physical Modelling and Testing in Environmental Geotechnics, La Baule, France, May 2000*, pp35-42.

41. P Sentenac, R J Lynch and M D Bolton, "Measurement of the side-wall boundary effect in soil columns using fibre-optics sensing", *International Journal of Physical Modelling and Testing in Geotechnics*, 2001, **4**, 35-41.

42. S F Catney and R J Lynch, "Experimental investigations of air sparging to control contaminated groundwater", *Proc. Inst. Civ. Eng. Geotechnical Engineering*, 2001, **149**, pp253-258.

43. R J Lynch, H Allersma, H Barker, A Bezuijen, M D Bolton, M Cartwright, M C R Davies, N Depountis, G Esposito, J Garnier, J de Almeida Garrett, C Harris, C Kechavarzi, O Oung, P Sentenac, M G da Silva, C Santos, P Sentenac, K Soga, S Spiessl, R N Taylor, A C J Treadaway, F Weststrate, "Development of sensors and imaging techniques for pollutant monitoring in geo-environmental model tests", *International Journal of Physical Modelling and Testing in Geotechnics*, 2001,**4**, 17-27.

44. M S M Chan, R J Lynch, and D J Ilett, Use of cation-selective membrane and acid addition for pH control in two-dimensional electrokinetic remediation of copper, *Proceedings of EREM 2001, 3<sup>rd</sup> Symposium on Electrokinetic Remediation, Karlsruhe, 2001*, C Czurda, R Haus, C Kappeler and R Zorn (Eds), *Schr. Angew. Geol. Karlsruhe*, pp 33-1 to 33-12.

45. M S M Chan, R J Lynch, C Carr, B R Masterson and N Read, Rapid measurement of heavy metals in soil by XRF, *NICOLE Meeting: Cost-effective site characterisation, Pisa April 2002*.

46. M. S. M. Chan and R. J. Lynch, **2002**, Photocatalytic degradation of aqueous methyl-tert-butyl-ether (MTBE) in a supported-catalyst reactor, *Proceedings of 3rd European Meeting on Environmental Chemistry*, Geneva, Switzerland.

47. M. S. M. Chan and R. J. Lynch, **2003**, Photocatalytic Remediation of MTBE in Groundwater, *Proceedings of ConSoil 2003 - 8th International FZK/TNO Conference on Contaminated Soil*, Gent, Belgium, pp 3521-3528. **(Awarded Best Student Paper)**

48. M. S. M. Chan and R. J. Lynch, **2003**, Photocatalytic Remediation of Petroleum Oxygenates in Water, *Proceedings of International Conference on Pollution in the Metropolitan and Urban Environment (POLMET 2003)*, Hong Kong, China, Section 4A.

49. M. S. M. Chan and R. J. Lynch, **2003**, Photocatalytic degradation of aqueous methyl-tert-butyl-ether (MTBE) in a supported-catalyst reactor, *Environmental Chemistry Letters*, Vol. 1(3), pp 157-160.

50. M. S. M. Chan and R. J. Lynch, **2003**, Photocatalytic Remediation of Petroleum Oxygenates in Water, *1st European Conference on MTBE*, Dresden, Germany, Poster Presentation.
51. A Muntoni, R Ruggeri and R J Lynch, An electrokinetic barrier against heavy metal contamination in fine-grained soils, *Battelle Conference on Remediation of Contaminated Sediments*, Venice Sep-Oct 2003.
52. A Muntoni, R J Lynch, R Ruggeri, and E Fenude, Investigation of an electrokinetic fence for protection against heavy metal contamination in soils, *EREM - Fourth International Electrokinetic Remediation Conference* – Mol, Belgium, May, 2003
53. Orlov, A., Jefferson, D., Lynch, R. Tikhov, M., Lambert, R. "Photocatalytic properties of TiO<sub>2</sub> modified with gold nanoparticles in the degradation of groundwater pollutants: XPS, HRTEM, and reactor studies", SETAC 24th Annual Meeting in North America, Austin, TX, USA, November 9 – 13, 2003.
54. Orlov, A., Lynch, R., Lambert, R. "Development of new photocatalysts for the enhanced removal of chlorophenol from water." *Proceedings of 6th International Symposium & Exhibition on Environmental Contamination in Central & Eastern Europe and CIS*, Prague, 2003.
55. F.K. Gunzel, W.H. Craig, P. Crancon, L.M. Cottineau, C. Kechavarzi, R.J. Lynch, C.M. Merrifield, O. Oung, F.M. Schenkeveld, K. Soga, L. Thorel & F.A. Weststrate Evaluation of probes and techniques for water content monitoring in geotechnical centrifuge models, *Int. Journal Physical Modelling in Geotechnics*, Vol. 3, No. 1, 31-43, 2003. **(Winner of Schofield Award – Best paper of 2003)**
56. Orlov, A., Jefferson, D., Tikhov, M., Lynch R., Lambert, R. "Photocatalytic properties of TiO<sub>2</sub> modified with gold nanoparticles in the degradation of groundwater pollutants: XPS, HRTEM, and reactor studies", *SETAC 24th Annual Meeting in North America*, Austin, TX, USA, November 9 – 13, 2003
57. M. Chan, S. Rolt, R. Lynch, A. Orlov and R. Lambert, In-Situ Clean-Up of Organics Contamination in Groundwater by Photocatalysis, *EPSRC/ICE Research Showcase on Contaminated Land Remediation*, Institution of Civil Engineers, London, January 2004.
58. Sasaki, S. and Lynch, R.J. (2005) [Measurement of copper solution transport in a sand column by means of a fibre-optic sensor and analysis of the breakthrough curve](#) *Soils and Foundations*, 45 (1). pp. 27-36. ISSN 0038-0806
59. M Chan, A Orlov, R Lambert and R Lynch, (2005) [In situ groundwater clean-up of MTBE by photocatalysis](#) IAHS Publication: Bringing Groundwater Quality Research to the Watershed Scale, 297 . pp. 349-357. ISSN 0144-7815
60. M.A. Nowicki, R.J. Lynch and G. Amaratunga , Stand-alone solar powered electrokinetic fence for preventing heavy metal pollution of groundwater, *Proceedings of the 20<sup>th</sup> EU Photovoltaic Solar Energy Conference*, Barcelona, Spain, June 2005.
61. Sentenac, P. and Taylor, R.N. and Lynch, R.J. and Bolton, M. (2006) *Butanol effect on consolidated clay*. *International Journal of Physical Modeling in Geotechnics*, 6 (4). pp. 19-27. ISSN 1346213X
62. Orlov, A. and Chan, M. and Jefferson, D.A. and Zhou, D. and Lynch, R.J. and Lambert, R.M. (2006) [Photocatalytic degradation of water-soluble organic pollutants on TiO<sub>2</sub> modified with gold nanoparticles](#) *Environmental Technology*, 27 (7). pp. 747-752. ISSN 0959-3330

63. Lynch, R.J. and Muntoni, A. and Ruggeri, R. and Winfield, K.C. (2007) [Preliminary tests of an electrokinetic barrier to prevent heavy metal pollution of soils](#) *Electrochimica Acta*, 52 (10). pp. 3432-3440. ISSN 0013-4686
64. Sentenac, P. and Lynch, R.J. and Bolton, M.D. and Taylor, R.N. (2007) [Alcohol's effect on the hydraulic conductivity of consolidated clay](#) *Environmental Geology*, 52 (8). pp. 1595-1600. ISSN 0943-0105
65. Lim, L.P.L. and Lynch, R.J. and In, S.-I. (2009) [Comparison of simple and economical photocatalyst immobilisation procedures](#) *Applied Catalysis A: General*, 365 (2). pp. 214-221. ISSN 0926-860X
66. Lynch R J (2009) *Electrokinetic barriers for preventing groundwater pollution*, in "Electrochemical remediation technologies for polluted soils, sediments and groundwater" (Editors: K R Reddy and C Cameselle, Wiley, USA , Chapter 16 pp335-356. ISBN 978-0-470-38343-8
67. Lim, L.P.L. and Lynch, R.J. (2010) [A proposed photocatalytic reactor design for in situ groundwater applications](#) *Applied Catalysis A: General*, 378 (2). pp. 202-210. ISSN 0926-860X
68. Lim L. L. P. and R. J. Lynch (2010) [Hydraulic Performance of a Proposed In-situ Photocatalytic Reactor for Degradation of MTBE in Water](#). *Chemosphere* [Volume 82, Issue 4](#), January 2011, Pages 613-620.