

Publications 1997

1. **A 1,3-Dipolar Cycloaddition Approach to the Construction of New Bis-Heterocycles from Thymine as Potential Non Nucleoside Reverse Transcriptase Inhibitors**
Journal of the Chemical Society, Perkin Transactions 1, 1997, 901-911
D R Adams, C Perez, Y Yanin, C Monneret, D S Grierson
2. **Preparation and Anti-HIV Activity of N-3 Substituted Thymidine Nucleoside Analogs**
Journal of Medicinal Chemistry, 1997, 40, 1550-1558
D R Adams, C Perez, M Maillard, J C Florent, M Evers, Y Henin, S Litvak, L Litvak, C Monneret, D S Grierson
3. **Molecular Dynamics of a Main-Chain Liquid Crystalline Polyester below the crystalline to Nematic Phase Transition**
J.Chem. Soc.: Faraday Trans., 1997, 93(8), 1605-1612
V Arrighi, J S Higgins
4. **A New Asymmetric Route to Bridged Indole Alkaloids: Formal Enantiospecific Syntheses of (-)-Suaveoline, (-)-Raumacline and (-)-Nb-Methylraumacline**
Journal of the Chemical Society, Perkin Transactions 1, 1997, 1209-1214
P D Bailey, I D Collier, S P Hollinshead, M H Moore, K M Morgan, D I Smith, J M Vernon
5. **Coaxing Chemists to Communicate**
University Chemistry Education, 1997, 1, 31-36
P D Bailey
6. **Teaching Communication Skills in Chemistry**
Proceedings to RSC Conference, "Variety in Chemistry Teaching 1997", 1997, 36-37
P D Bailey, S E Shinton
7. **The Influence of Luminal pH on Transport of Neutral and Charged Dipeptides by Rat Small Intestine, *in vivo***
Biochimica et Biophysica Acta, 1997, 1324, 245-250
N Lister, P D Bailey, I D Collier, C A R Boyd, J R Bronk
8. **Poly (propylene imine) dendromesogens with hexagonal columnar mesophases**
Advanced Materials, 1997, 9, 398-403
J H Cameron, A Facher, G Lattermann, S Diele

9. ***Enthalpy relaxation in glassy polystyrenes - part 1***
Polymer, 1997, 38, 865-870
A Brunacci, J M G Cowie, R Ferguson, I J McEwen
10. ***Enthalpy relaxation in glassy polystyrenes - part 2***
Polymer, 1997, 38, 3263-3268
A Brunacci, J M G Cowie, R Ferguson, I J McEwen
11. ***Fibres from Polypropylene and Liquid Crystal Polymer Blends Using Compatibilizing Agents - 3. Assessment of Graft Side Chain Liquid Crystalline Compatibilisers based upon Acrylic Acid-Functionalized Polypropylene***
Polymer, 1997, 38, 1565-1568
M M Miller, D L Brydon, J M G Cowie, R R Mather
12. ***Physical ageing in poly(vinyl acetate) - 1. Enthalpy relaxation.***
Journal of Polymer Science B: Polymer Physics., 1997, 35, 1107-1116
J M G Cowie, S Harris, I J McEwen
13. ***Dynamical Symmetry breaking in the 4nuCH rovibrational manifold of acetylene.***
Chemical Physics Letters, 1997, 265, 244-252
M A Payne, A P Milce, M J Frost, B J Orr
14. ***Alpha-PNA: A Novel Peptide Nucleic Acid Analogue of DNA***
J. Org. Chem., 1997, 62, 5441-5450
N Howarth, L P G Wakelin
15. ***Estrone Sulphonates as Inhibitors of Esterone Sulphatase***
Steroids, 1997, 62, 346-350
N Howarth, A Purohit, M J Reed, B V L Potter
16. ***Is Inter-facial Silicon-Carbide Necessary for the Epitaxy of Diamond on (100) Silicon?***
Advanced Materials/CVD, 1997, 3, 30-33
P John, D K Milne, M G Jubber, J I B Wilson
17. ***The Heteroepitaxy of Diamond on (100) Silicon***
Advanced Materials 1997 - Proceedings of the 4th International Symposium on Advanced Materials (ISAM'97), Tsukuba, Japan, 1997, 13-22
P John
18. ***The Laser Mass Spectrometry of Anthracene Picrate***
Analytical Chemistry, 1997, 69, 2927-2930

19. ***Physical-Chemical Aspects of Mass Spectrometry***
Royal Society of Chemistry, Annual Reports, C, 1997, 1997, 93, 333-361
C A F Johnson, J E Parker
20. ***Threshold Photoelectron-Photoion Coincidence Studies of Furan***
Abstracts of the 14th International Mass Spectrometry Conference, Tampere, Finland, August 1997, 1997, 151
E E Rennie, M A Hayes, D M P Holland, C A F Johnson, J E Parker, D A Shaw
21. ***Threshold Photoelectron-Photoion Coincidence Studies of Furan*** British Mass Spectrometry Society, Jennings Symposium, Warwick, December 1997, 1997
E E Rennie, M A Hayes, D M P O L Holland, C A F Johnson, J E Parker, D A Shaw
22. ***Synthesis and Characterisation of 2,w- and a- functionalised hydrogenated polydutadienes: Telechelic and semi-telechelic amine and phosphite terminated polymers.***
Polymer, 1997, 38, 2835-2848
W E Lindsell, S Tait
23. ***Synthesis and metallation of ferrocenylimines derived from ligating diaminoheteroarenes***
J. Chem. Soc., Dalton Transactions, 1997, 3765-3771
C M Asselin, G C Fraser, H K Hall, W E Lindsell, A B Padias, P N Preston
24. ***Is pi-Donation the Only Way? Unprecedented Unsaturated Ru(II) Species Devoid of pi-Donor Ligands.***
Inorg. Chim. Acta., 1997, 259, 5
R H Heyn, S A Macgregor, T T Nadashi, M Ogasawara, O Eisenstein, K G Caulton
25. ***(E)-3,5-dichloro-3,5-bis(chloromethyl)-1,2,4-trioxolane***
Acta Crystallographica Section C-Crystal Structure Communications, 1997, 53 (Pt7), 911-913
K Griesbaum, K J McCullough, I Perner, R O Quinkert, G M Rosair
26. ***Crystal Structure of (E)-1,2-bis(1,1-dimethyl-2-oxopropyl)diaz-1-ene-1,2-diium-1,2-diolate, the trans-dimer of***
Journal of Chemical Research-S, 1997, 8, 270-271
B G Gowenlock, K J McCullough
27. ***Enantiospecific Synthesis of (-)-5-epi-Shikimic Acid and (-)-Shikimic Acid***
J. Chem. Soc., Perkin Trans. 1, 1997, 12, 1805-1814
S D Jiang, K J McCullough, B Mekki, G Singh, R H Wightman

28. ***Introduction to Spectroscopy***
"Software Reviews", CTI Chemistry, Liverpool, 1997, 16
K J McCullough
29. ***New Methods for the Synthesis of Oxy-Functionalized 1,2,4-Trioxanes and 1,2,4-Trioxepanes from Unsaturated Hydroperoxy***
Tetrahedron Letters, 1997, 38, 8753-8756
Y Ushigoe, A Masuyama, M Nojima, K J McCullough
30. ***Ozonolyses of acetylenes: Trapping of alpha-oxo carbonyl oxides by carbonyl compounds and stabilization of alpha-oxo ozonides by derivatizations***
Journal of Organic Chemistry, 1997, 62 (18), 6129-6136
K Griesbaum, Y X Dong, K J McCullough
31. ***Short path syntheses of alpha-diozonides by sequential ozonolyses of acetylenes and O-methyl oximes.***
Journal of the Chemical Society, Perkin Transactions 1, 1997, 11, 1601-1604
Y X Dong, K Griesbaum, K J McCullough
32. ***Synthesis of 1,2,4-dioxazolidine derivatives by the ozonolysis of indenes in the presence of primary amines.***
Journal of the Chemical Society, Perkin Transactions 1, 1997, 13, 1939-1942
Y Ushigoe, S Satake, A Masuyama, M Nojima, K J McCullough
33. ***Blends of poly(styrene-ran-2,4-dinitrostyrene) with poly(vinyl methyl ether) and poly(2,6-dimethyl-1,4-phenylene oxide).***
Polymer, 1997, 38, 2767-2771
I J McEwen, M D Fernandez, M J Fernandez
34. ***Conformational Analysis of Propionaldehyde (Propanal) by two-photon Spectroscopy of the 3s-n Rydberg Transition***
Chem. Phys. Letters, 1997, 274, 354-360
N C Shand, C L Ning, J Pfab
35. ***Generation and 355 nm laser photodissociation of nitrous acid (HONO) and HONO water clusters***
Journal of Physical Chemistry, 1997, 101, 6008-6014
C L Ning, J Pfab
36. ***Kinetics of the oxidation of aromatic C-nitroso compounds by nitrogen dioxide***
J. Chem. Soc., Perkin Trans. 2, 1997, 1793-1798
B G Gowenlock, J Pfab, V M Young

37. ***One- and two-photon spectroscopy of the 3s-n Rydberg transition of propionaldehyde (propanal)***
J. Chem. Soc., Faraday Trans., 1997, 93, 2883-2888
N C Shand, C L Ning, M R F Siggel, I C Walker, J Pfab
38. ***Photolysis of some N-nitroso- and N-nitro-anilines in solution***
J. Chem. Soc., Perkin Trans. 2, 1997, 915-919
B G Gowenlock, J Pfab, V M Young
39. ***A Powder Neutron Diffraction Study of Structure and Magnetism in NiCr₂S₄***
Journal of Solid State Chemistry, 1997, 134, 110-119
A V Powell, D C Colgan, C Ritter
40. ***A Time-of-Flight Powder Neutron Diffraction Study of Ternary Chromium Sulfides, Ni_xCr_{3-x}S₄(0 < x < 1.0)***
J. Mater. Chem., 1997, 7, 2433
D C Colgan, A V Powell
41. ***MnGaPO-2: Synthesis and Characterisation of [MnGa(PO₃ OH)₂(PO₄)][C₆N₂H₁₄], A New Macroporous Manganese-Gallium***
Chem. Mater., 1997, 9, 2830
A M Chippindale, A D Bond, A R Cowley, A V Powell
42. ***Synthesis and characterisation of Transition-Metal-Substituted Gallium Phosphates with the Laumontite Structure***
Zeolites, 1997, 19, 326
A D Bond, A M Chippindale, A R Cowley, A V Powell, J E Readman
43. ***Synthesis, reactions and theoretical studies of [1,2,4]triazolo[4,3-c]-pyrimidiinium- and [1,2,4]triazolo[4,3-a]pyrazinium-3-aminides***
J. Chem. Soc., Perkin Trans II, 1997, 49-57
D L Crabb, D A Main, J O Morley, P N Preston, S H B Wright
44. ***Absolute cross-sections for the VUV optical absorption of Cl₂O in the 6.5-9.7 eV energy range.***
Chem. Phys. Letters, 1997, 275, 298-306
F Motte-Tollet, M P Ska, G M Marston, I C Walker, M R F Siggel, J M Gingell, L Kaninski, K Brown, N J Mason
45. ***The molecular and electronic states of 1,2,4,5-tetrazine studied by VUV absorption, near-threshold electron energy-loss spectroscopy and ab initio multi-reference configuration interaction calculations.***

Chem.Phys., 1997, 214, 191-211
M H Palmer, H McNab, D Reed, A Pollachi, I C Walker, M F Guest, M R F Siggel

46. **VUV Optical Absorption and Electron Energy-loss Spectroscopy of Formamide**
Chem. Phys., 1997, 220, 191-205
J M Gingell, N J Mason, H Zhao, I C Walker, M R F Siggel
47. **[Ph₃P][nido-B₁₁H₁₄]**
Acta Crystallogr., 1997, C53, 229-231
T D McGrath, A J Welch
48. **First Example of a Bis(dicarbollide) Metallacarborane Containing a B'C'-Heteronuclear Bridge**
Inorg. Chem., 1997, 36, 2988-2991
C Vinas, J Pedrajas, F Teixidor, R Kivekas, R Sillanpaa, A J Welch
49. **Heteroboranes that Bend or Break the Rules**
Advances in Boron Chemistry, W. Siebert (Ed.), Royal Society of Chemistry, 1997, 418-421
J Cowie, D J Donohoe, S Dunn, U Gradler, Z G Lewis, T D McGrath, R L Thomas, A S Weller, S K Zahn, A J Welch
50. **Isolation of a Non-Icosahedral Intermediate in the Isomerisation of an Icosahedral Metallacarborane**
Angew. Chemie Int. Ed. Engl., 1997, 36, 645-647
S Dunn, G M Rosair, R L Thomas, A S Weller, A J Welch
51. **Reversible On/Off Switching of CH-Rh Interactions in Rhodathiaboranes with "Anomalous" Electron Counts. Synthesis and Molecular Structure of [Ph₃P)₂N][1-dppe-1,2-closo-RhSB₉H₉]**
J. Organometal. Chem., 1997, 527, 283-385
K J Adams, T D McGrath, R L Thomas, A S Weller, A J Welch
52. **Sterically Encumbered Charge-Compensated Carbaboranes: Synthesis and Reactivity. Molecular Structures of 7-Ph-11-SMe₂-7,8-nido-C₂B₉H₁₀ and 1-Ph-3,3-(CO)2-7-SMe₂-3,1,2-closo-RhC₂B₉H₈**
J. Organometal. Chem., 1997, 536-537, 299-308
G M Rosair, A J Welch, A S Weller, S K Zahn
53. **Synthesis and characterisation of a semipseudocloso carbaruthenaborane. Molecular structure of 1-(PhCC)-2-Ph-3-(cym)-3,1,2-semipseudocloso-RuC₂B₉H₉ (cym= p-cymene)**
J. Chem. Soc., Dalton Trans., 1997, 631-635
R L Thomas, A J Welch

54. *Synthesis and reactivity of nido-7,9-diphenylcarbaundecaboranes: rearrangement processes in carabaplatinaboranes revisited*
J. Chem. Soc., Dalton Trans., 1997, 1205-1212
A J Welch, A S Weller
55. *Synthesis, Molecular Structure and Reactivity of the Tetranuclear Complex [NBu₄]₂[Pd₄(m-PPh₂)₂(m-Cl)4(C₆F₅)₄]. Molecular Structure of [Pd₂(m-PPh₂)(C₆F₅)₂(bipy)₂]ClO₄.C₆H₁₄*
Inorg. Chem., 1997, 36, 4426-4431
E Alonso, J Fornies, C Fortuno, A Martin, G M Rosair, A J Welch
56. *Synthesis, Structure and Characterisation of Chiral Ru(II)-Aminophosphine Phosphinite Complexes and their Applications in Asymmetric Hydrogenation of a Functionalised Ketones. X-ray Crystal Structure of Ru{*(S*)-Ph,Ph-ProNOP}(2-methylallyl)2*
New J. Chem., 1997, 21, 1161-1172
A J Welch, F Hapiot, F Agbossou, C Meliet, A Mortreux, G M Rosair
57. *Antibiotics, Nucleosides*
Carbohydrate Chemistry, (A Specialist Periodical Report), Royal Society of Chemistry, Cambridge, 1997, 29, 252-267; 268-310
R H Wightman
58. *Synthesis of Hydroxylated Pyrrolizidines Related to Alexine using Cycloaddition Reactions of Functionalised Cyclic Nitrones*
Synlett, 1997, 123-125
A Hall, K P Meldrum, P R Therond, R H Wightman
59. *Synthesis of some Hydroxamic Acids Related to Uridine: Potential Inhibitors of Ribonucleoside Diphosphate Reductase*
Nucleosides and Nucleotides, 1997, 16, 115-128
P Currid, R H Wightman
60. *Synthesis of some Pyrrolo[2,3-*d*]pyrimidine and 1,2,3-Triazole Isonucleosides*
Tetrahedron, 1997, 53, 3831-3842
R R Talekar, R H Wightman
61. *Synthesis of some Pyrrolo[2,3-*d*]pyrimidine Isodideoxynucleosides of (*S,S*)-stereochemistry*
Nucleosides and Nucleotides, 1997, 16, 495-505
R R Talekar, R H Wightman
62. *Density Functional Study of the Electronic Structures of [Co(NH₃)₅X(3+*n*)]⁺ Complexes. Insight into the Role of the 3d and 4s Orbitals in Metal-Ligand Interactions*

Journal Physical Chemistry. A., 1997, 101, 4196-4201
J C C Chan, P J Wilson, S C F Au-Yeung, S K K Leung, G A Webb

63. *Theoretical nuclear shielding calculations on the secondary structure of the gellan polysaccharide*

Journal of Molecular Structure, 1997, 405, 139-149
P J Wilson, B J Howlin, G A Webb