

Chemistry Publications 2005

1. **Two new octahedral Cd(II) complexes [Cd(L)₂] and {[Cd(LH)₂(SCN)₂]H₂O} [L = C₆H₅C(OH)NN = C(CH₃)C₅H₄N]: Synthesis and structural studies**
Sen S, Talukder P, Rosair GM, Mitra S
STRUCTURAL CHEMISTRY **16** 605-610 (2005)
2. **Two new 1-D dicyanamide bridged polymeric complexes [Mn(μ_{1,5}-dca)₂(salicyh)₂]_n and {[Ni(μ_{1,5}-dca)(TTA)(ClO₄)_n} (dca = dicyanamide, N(CN)₂⁻; salicyh = salicylic hydrazide; TTA = triethylenetetramine): Synthesis, structures and magnetic studies**
Sen S, Talukder P, Mitra S, Rosair GM, Yap G, Gramlich V, Kim J, Matsushita T, Desplanches U, Sutter JP
INORGANICA CHIMICA ACTA **358** 4534-4540 (2005)
3. **Directing the structures of silver-antimony sulphides: A new topological variant of the [Ag₅Sb₃S₈]²⁻ double layer**
Powell AV, Thun J, Chippindale AM
JOURNAL OF SOLID STATE CHEMISTRY **178** 3414-3419 (2005)
4. **Methylammonium antimony sulfide**
Lees RJE, Powell AV, Chippindale AM
ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS **61** M516-M518 (2005)
5. **Probing dipeptide trans/cis stereochemistry using pH control of thiopeptide analogues, and application to the PepT1 transporter**
Bailey PD, Boyd CAR, Collier ID, Kellett GL, Meredith D, Morgan KM, Pettecrew R, Price RA
ORGANIC & BIOMOLECULAR CHEMISTRY **3** 4038-4039 (2005)
6. **Palladium-catalyzed carbonylation of arylmethyl halides: efficient synthesis of arylacetic acid and esters**
Jones RVH, Lindsell WE, Palmer DD, Preston PN, Whitton AJ
TETRAHEDRON LETTERS **46** 8695-8697 (2005)
7. **The synthesis and characterisation of two new iron thioantimonates: [Fe(en)₃]₂Sb₂S₅·0.55H₂O and [Fe(en)₃]₂Sb₄S₈**
Lees RJE, Powell AV, Chippindale AM
POLYHEDRON **24** 1941-1948 (2005)
8. **The F/Ph rearrangement reaction of [(Ph₃P)₃RhF], the fluoride congener of Wilkinson's catalyst**
Macgregor SA, Roe DC, Marshall WJ, Bloch KM, Bakhmutov VI, Grushin VV
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY **127** 15304-15321 (2005)
9. **Conformational and spacial preferences for substrates of PepT1**
Bailey PD, Boyd CAR, Collier ID, George JG, Kellett GL, Meredith D, Morgan KM, Pettecrew R, Price RA, Pritchard RG
CHEMICAL COMMUNICATIONS 5352-5354 (2005)

10. **An intramolecular 1,3-dipolar cycloaddition reaction towards the synthesis of chiral azetidine nucleoside analogues: The D-gluco case**
Padar P, Forgo P, Kele Z, Howarth NM, Kovacs L
NUCLEOSIDES NUCLEOTIDES & NUCLEIC ACIDS **24** 743-745 (2005)
11. **Computational study of the mechanism of cyclometalation by palladium acetate**
Davies DL, Donald SMA, Macgregor SA
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY **127** 13754-13755 (2005)
12. **A new Cu(II) bridging-carboxylate helical chain polymer: synthesis and structural aspects**
Datta A, Dey DK, Hwang WS, Matsushita T, Rosair GM
JOURNAL OF CHEMICAL RESEARCH-S **502-504** (2005)
13. **New polymeric materials for paper and textile conservation. I. Synthesis and characterization of acrylic copolymers**
Princi E, Vicini S, Pedemonte E, Arrighi V, McEwen IJM
JOURNAL OF APPLIED POLYMER SCIENCE **98** 1157-1164 (2005)
14. **Lipophilic peptide nucleic acids containing a 1,3-diyne function: synthesis, characterization and production of derived polydiacetylene liposomes**
Howarth NM, Lindsell WE, Murray E, Preston PN
TETRAHEDRON **61** 8875-8887 (2005)
15. **A study of the valence shell photoelectron and photoabsorption spectra of CF₃SF₅**
Holland DMP, Shaw DA, Walker IC, McEwen IJ, Apra E, Guest MF
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS **38** 2047-2067 (2005)
16. **Muon spin rotation study of magnetism in electron-doped chromium sulfide**
Brooks ML, Blundell SJ, Steer CA, Lancaster T, Pratt FL, Vaqueiro P, Powell AV
PHYSICAL REVIEW B **72** 012419 (2005)
17. **The electrochemically-tuneable interactions between flavin-functionalised C-60 derivatives and 2,6-diethylamidopyridine**
Carroll JB, Cooke G, Garety JF, Jordan BJ, Mabruk S, Rotello VM
CHEMICAL COMMUNICATIONS 3838-3840 (2005)
18. **Photochromic protein substrates**
Shah MRB, Christie RM, Morgan KM, Shamey R
MOLECULAR CRYSTALS AND LIQUID CRYSTALS **431** 535-539 (2005)
19. **Intramolecular 1,3-dipolar cycloaddition of unsaturated nitrones derived from methyl alpha-D-glucopyranoside**
Padar P, Hornyak M, Forgo M, Kele Z, Paragi G, Howarth NM, Kovacs L
TETRAHEDRON B **6816-6823** (2005)
20. **Model systems for flavoenzyme activity: Site-isolated redox behavior in flavin-functionalized random polystyrene copolymers**
Carroll JB, Jordan BJ, Xu H, Erdogan B, Lee L, Cheng L, Tiernan C, Cooke G, Rotello VM

ORGANIC LETTERS B 2551-2554 (2005)

21. **Topotactic oxidation of TiGaPO-1, a pyridine-templated titanium gallophosphate with a new octahedral-tetrahedral 3-D framework structure containing Ti^{III}/Ti^{IV}**
Chippindale AM, Grimshaw MR, **Powell AV**, Cowley AR
INORGANIC CHEMISTRY **44** 4121-4123 (2005)
22. **Reactions of amines with CVD diamond nanopowders**
Lee JK, Anderson MW, Gray FA, **John P**, Lee JY
DIAMOND AND RELATED MATERIALS **14** 675-678 (2005)
23. **Solvothermal syntheses, crystal structures and properties of five new thioantimonates(III) containing the [Sb₄S₇]²⁻ anion**
Puls A, Schaefer M, Nather C, Bensch W, **Powell AV**, Boissiere S, Chippindale AM
JOURNAL OF SOLID STATE CHEMISTRY **178** 1171-1181 (2005)
24. **Orientation and alignment moments in two-color polarization spectroscopy**
Costen ML, **McKendrick KG**
JOURNAL OF CHEMICAL PHYSICS **122** 164309 (2005)
25. **Model systems for flavoenzyme activity: a tuneable intramolecularly hydrogen bonded flavin-diamidopyridine complex**
Boyd ASF, Carroll JB, **Cooke G**, Garety JF, Jordan BJ, Mabruk S, **Rosair G**, Rotello VM
CHEMICAL COMMUNICATIONS 2468-2470 (2005)
26. **Thermopower across the insulator-metal divide in NiCr_{2-x}V_xS₄ (0 < x < 2)**
Powell AV, **Vaqueiro P**, Ohtani T
PHYSICAL REVIEW B **71** 125120 (2005)
27. **Thermal characterisation of cellulose based materials - Investigation of water content**
Princi E, Vicini S, Pedemonte E, **Arrighi V**, McEwen IJM
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY **80** 369-373 (2005)
28. **Enthalpy relaxation and free volume changes in aged styrene copolymers containing a hydrogen bonding co-monomer**
McGonigle EA, **Cowie JMG**, **Arrighi V**, Pethrick RA
JOURNAL OF MATERIALS SCIENCE **40** 1869-1881 (2005)
29. **The synthesis and characterisation of 4,1,2-MC₂B₁₀ metallacarboranes**
McIntosh R, Ellis D, Gil-Lostes J, Dalby KJ, **Rosair GM**, **Welch AJ**
DALTON TRANSACTIONS 1842-1846 (2005)
30. **Investigations of benzyl and aryl palladium complexes with pendant hydroxy substituents and their transformation into benzolactones on carbonylation**
Lindsell WE, Palmer DD, **Preston PN**, **Rosair GM**, Jones RVH, Whitton AJ
ORGANOMETALLICS **24** 1119-1133 (2005)
31. **Towards the mechanism of heteroborane isomerisation: 1,2 → 1,2 and 1,2 → 1,7 low-temperature isomerisations from metallations of [5-I-7,8-Ph₂-7,8-nido-C₂B₉H₈]²⁻**
Robertson S, Garrioch RM, Ellis D, McGrath TD, Hodson BE, **Rosair GM**, **Welch AJ**
INORGANICA CHIMICA ACTA **358** 1485-1493 (2005)

32. **Synthetic, spectroscopic, computational and structural studies of some 13-vertex ruthenacarboranes**
Burke A, Ellis D, Ferrer D, Ormsby DL, **Rosair GM, Welch AJ**
DALTON TRANSACTIONS 1716-1721 (2005)
33. **Synthesis of C-disaccharide analogues of the alpha-D-arabinofuranosyl-(1 → 5)-alpha-D-arabinofuranosyl motif of mycobacterial cell walls via alkynyl intermediates**
Aslam T, Fuchs MGG, Le Formal A, **Wightman RH**
TETRAHEDRON LETTERS **46** 3249-3252 (2005)
34. **Synthesis, structure and luminescence behaviour of complexes of type [Cd(dpa)₂X₂] (dpa=2,2'-dipyridylamine; X = N₃⁻, NCS⁻, NCO⁻)**
Chowdhury H, Ghosh R, Rahaman SH, **Rosair GM**, Ghosh BK
INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY **44** 687-692 (2005)
35. **Isolation of a new two-dimensional honeycomb carbonato-bridged copper(II) complex exhibiting long-range ferromagnetic ordering**
Majumder A, Choudhury CR, Mitra S, **Rosair GM**, El Fallah MS, Ribas J
CHEMICAL COMMUNICATIONS 2158-2160 (2005)
36. **Enthalpy relaxation in poly(4-hydroxy styrene)/poly(methyl methacrylate) blends**
Cowie JMG, Arrighi V, McGonigle EA
MACROMOLECULAR CHEMISTRY AND PHYSICS **206** 767-776 (2005)
37. **Rhodium and iridium complexes of N-(2'-hydroxyphenyl)pyrrole-2-alimine: Synthesis, structure, and spectral and electrochemical properties**
Basu S, Pal I, Butcher RJ, **Rosair GM**, Bhattacharya S
JOURNAL OF CHEMICAL SCIENCES **117** 167-173 (2005)
38. **Fourteen-vertex homo- and heterobimetallic metallacarboranes**
Ellis D, Lopez ME, McIntosh R, **Rosair GM, Welch AJ**
CHEMICAL COMMUNICATIONS 1917-1919 (2005)
39. **(η⁵-Cyclopentadienyl)(N,N-dimethyldithiocarbamato-κ S₂,S'')[η⁴-tetrakis(trifluoromethyl)cyclobutadienyl]-molybdenum(IV)**
Davidson JL, Jarvie A, Muir KW
ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS **61** M209-M210 (2005)
40. **A new one-dimensional coordination polymer [Co(CCl₃COO)₂(CH₃OH)₂(μ_{4,4'}-bipy)]_n: Synthesis and structural aspects**
Talukder P, Datta A, Mitra S, **Rosair GM**
ZEITSCHRIFT FUR NATURFORSCHUNG SECTION B-A JOURNAL OF CHEMICAL SCIENCES **60** 33-36 (2005)
41. **The first 4,1,10-MC₂B₁₀ supraicosahedral metallacarboranes and a route to previously inaccessible 4,1,12-ruthenium arene species**
Ellis D, Lopez ME, McIntosh R, **Rosair GM, Welch AJ**, Quenardelle R
CHEMICAL COMMUNICATIONS 1348-1350 (2005)

42. **On the difference in scattering behavior of cyclic and linear polymers in bulk**
Gagliardi S, Arrighi V, Ferguson R, Dagger AC, Semlyen JA, Higgins JS
JOURNAL OF CHEMICAL PHYSICS **122** 064904 (2005)
43. **Synthesis, optical properties, crystal structures and phase behaviour of symmetric, conjugated ethynylarene-based rigid rods with terminal carboxylate groups**
Fasina TM, Collings JC, Burke JM, Batsanov AS, Ward RM, Albesa-Jove D, Porres L, Beeby A, Howard JAK, Scott AJ, Clegg W, Watt SW, Viney C, Marder TB
JOURNAL OF MATERIALS CHEMISTRY **15** 690-697 (2005)
44. **The effects of surface temperature on the gas-liquid interfacial reaction dynamics of O³P plus squalane**
Kohler SPK, Allan M, Kelso H, Henderson DA, McKendrick KG
JOURNAL OF CHEMICAL PHYSICS **122** 024712 (2005)
45. **Benzyl 2-amino-6-chloro-9H-purine-9-carboxylate**
Adebambo KF, Howarth NM, Rosair GM
ACTA CRYSTALLOGRAPHICA SECTION E-STRUCTURE REPORTS ONLINE **61** O486-O488 (2005)
46. **Collision-partner dependence of energy transfer between the CH A²Δ and B²Σ⁻ states**
Richmond G, Costen ML, McKendrick KG
JOURNAL OF PHYSICAL CHEMISTRY A **109** 542-553 (2005)
47. **Synthesis of cyclic peroxides by chemo- and regioselective peroxidation of dienes with Co(II)/O⁻²/Et₃SiH**
Tokuyasu T, Kunikawa S, McCullough KJ, Masuyama A, Nojima M
JOURNAL OF ORGANIC CHEMISTRY **70** 251-260 (2005)
48. **Synthesis and properties of segmented copolymers containing short aramid hard segments and aliphatic polyester or polycarbonate soft segments**
Rabani G, Luftmann H, Kraft A
POLYMER **46** 27-35 (2005)
49. **Reactions of α,ω-dithiolate ligands with bis(cyclopentadienyl)molybdenum dichloride; crystal structures of Mo(η-C₅H₅)₂{S(CH₂)_nS}(n=2, 3) and a layered hydrate, Mo(η-C₅H₅)₂(SCH₂CH₂O)·4.5H₂O**
Lindsell WE, Rosair GM, Rothmann MM
JOURNAL OF ORGANOMETALLIC CHEMISTRY **690** 126-133 (2005)
50. **The application of molecular modelling techniques in the prediction of the photochromic behaviour of spiroindolinonaphthoxazines**
Christie RM, Chi LJ, Spark RA, Morgan KM, Boyd ASF, Lycka A
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY **169** 37-45 (2005)
51. **Shape-memory polymers containing aramid hard segments and polycaprolactone soft segments**
Kraft A, Rabani G, Schuh C, Müller K, Lechmann MC

52. **Advanced Materials Highlights**
Kraft A
CHEMISTRY & INDUSTRY (**3**) 26-27 (2005)
53. **Advanced Materials Highlights**
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CHEMISTRY & INDUSTRY (**7**) 22-23 (2005)
54. **Advanced Materials Highlights**
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55. **Advanced Materials Highlights**
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CHEMISTRY & INDUSTRY (**15**) 26-27 (2005)
56. **Advanced Materials Highlights**
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CHEMISTRY & INDUSTRY (**19**) 34-35 (2005)
57. **Advanced Materials Highlights**
Kraft A
CHEMISTRY & INDUSTRY (**23**) 22-23 (2005)
58. **Hyperfine quantum beats from photolytic orientation and alignment**
Costen ML, Hall GE
PHYS. CHEM. CHEM. PHYS. **7** 1408-1413 (2005)
59. **Rovibrational energy transfer in the $4\nu(\text{CH})$ manifold of acetylene viewed by IR-UV double resonance spectroscopy. 2. Perturbed states with $J = 17$ and 18**
Payne MA, Milce AP, Frost MJ, Orr BJ
JOURNAL OF PHYSICAL CHEMISTRY B **109** 8332-8343 (2005)
60. **Rovibrational energy transfer in the $4\nu(\text{CH})$ manifold of acetylene, viewed by IR-UV double resonance spectroscopy. 3. State-to-state J -resolved kinetics**
Payne MA, Milce AP, Frost MJ, Orr BJ
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