Publications: Research Articles 2012

1. **Ahmad, E.E.M. & Luyt, A.S.** 2012. Effects of Organic Peroxide and Polymer Chain Structure on Mechanical and Dynamic Mechanical Properties of Sisal Fiber Reinforced Polyethylene Composites. *Journal of Applied Polymer Science* 125: 2216-2222.

2. **Zawnotto, A., Spinella, A., Nasillo, G., Caponetti, E. and Luyt, A.S.** 2012. Macro-micro relationship in nanostrctured functional composites. *eXPRESS Polymer Letters* 6. 5: 410-416.

3. **Focke, W.W., van der Westhuizen, I., Lofté Grobler, A.B., Nshoane, K.T., Reddy, J.K. and Luyt, A.S.** The effect of synthetic antioxidants on the oxidative stability of biodiesel. *Fuel* 94: 227-233.

4. **Bem, D.B., Luyt, A.S., Dejene, B.F. and Swart, H.C.** 2012. Temperature-dependence of the structural and afterglow luminance properties of polymer/$SrAl_xO_y$:Eu^{2+},Dy^{3+} composites. *Physica B* **407**: 1556-1560.

5. **Bem, D.B., Dejene, F.B., Luyt, A.S. and Swart, H.C.** 2012. Luminescence studies of a combustion-synthesized blue-green $BaAL_xO_y$:Eu^{2+},Dy^{3+} nanoparticles. *Physica B* 407: 1561-1565.

6. **Nhlapo, L.P. and Luyt, A.S.** 2012. Thermal and Mechanical Properties of LDPE/Sisal Fiber Composites Compatibilized with Functionalized Paraffin Waxes. *Journal of Applied Polymer Science* **123**: 3627-3634.

7. **Trandafilovic, L.V., Bozanic, D.K., Dimitrievic-Brankovic, S., Luyt, A.S. and Djokovic, V.** 2012. Fabrication and antibacterial properties of ZnO-alginate nanocomposites. *Carbohydrate Polymers* **88:** 263-269.

8. **Ahmad, E.E.M. and Luyt, A.S.** 2012. Effects of organic peroxide and polymer chain structure on morphology and thermal properties of sisal fibre reinforced polyethylene composites. *Composites: Part A* **43**: 703-710.

9. **Mhike, W., Focke, W.W., Mofokeng, J.P. and Luyt, A.S.** 2012. Thermally conductive phase-change materials for energy storage based on low-density polyethylene, soft Fischer-Tropsch wax and graphite. *Thermochimica Acta* **527:** 75-82.

10. **Saladino, M.L., Motaung, T.E., Luyt, A.S., Spinella, A., Nasillo, G. and Caponetti, E.** 2012. The effect of silica nanoparticles on the morphology, mechanical properties and thermal degradation kinetics of PMMA. *Polymer Degradation and Stability* **97:** 452-459.

11. **Motaung, T.E., Luyt, A.S., Bondioli, F., Messori, M., Saladina, M.L., Spinella, A., Nasillo, G. and Caponetti, E.** 2012. PMMA-titania nanocomposites: Properties and thermal degradation behaviour. *Polymer Degradation and Stability* **97:** 1325-1333

12. **Barnard, N.I. and Visser, H.G.** 2012. Novel Synthetic method for cobalt complexes: Structural and kinetic study of [Co(nta)(py)(H_2O)]. *Inorganic Chemistry Communications* **15:** 40-423.

13. **von Eschwege, K.G.** 2012. Oxidation resilient dithizones – Synthesis, cyclic voltammetry and DFT perspectives. *Polyhedron* **39:** 99-105.

14. **He, W., Fang Q., Lin, W., Luyt, A.S. and Ge, T.** 2012. Study on Anti-fog Films of Polyethylene Modified with Inorganic Micrometer Diatomite. *Applied Mechanics and Materials* **200:** 347-350.

15. **Mochane, M.J. and Luyt, A.S.** 2012. Preparation and properties of polystyrene encapsulated paraffin wax as possible phase change material in a polypropylene matrix. *Thermochimica Acta* **544:** 63-70.

16. **Gohain, M., Muller, T.J. and Bezuidenhoudt, B.C.B.** 2012. 5-(3,4-Dimethoxybenzylidene)-1,3-dimethyl-1,3-diazinane-2,4,6-trione. *Acta Crystallographica Section E*, **E68:** o179

17. **Enow, C.A., Marais, C. and Bezuidenhoudt, B.C.B.** 2012. Catalytic epoxidation of stilbenes with non-peripherally alkyl substituted carbonyl ruthenium phthalocyanine complexes. *Journal of Porphyrins and Phthalocyanines* **16**: 403-412.

18. **Gohain, M., Marais, C. and Bezuidenhoudt, B.C.B.** 2012. $Al(OTf)_3$: an efficient recyclable catalyst for direct nucleophilic substitution of the hydroxyl group of propargylic alcohols with carbon- and heteroatom-centered nucleophiles to construct C-C, C-O, C-N and C-S bonds. *Tetrahedron Letters* **53:** 1048-1050.

19. **Gohain, M., Marais, C. and Bezuidenhoudt, B.C.B.** 2012. An $Al(OTf)_3$-catalyzed environmentally benign process for the propargylation of indoles. *Tetrahedron Letters* **53:** 4704-4707.

20. **Pitale, S.S., Gohain, M., Nagpure, I.M., Ntwaeaborwa, O.M., Bezuidenhoudt, B,C,B, and Swart, H.C.** 2012. A comparative study on structural, morphological and luminescence characteristics of $Zn_3(VO_4)_2$ phosphor prepared via hydrothermal and citrate-gel combustion routes. *Physica B* **407:** 1485-1488.

21. **Miller, B.J., Pieterse, T., Marais, C. and Bezuidenhoudt, B.C.B.** 2012. Ring-closing metathesis as a new methodology for the synthesis of monomeric flavonoids and neoflavonoids. *Tetrahedron Letters* **53:** 4708-4710.

22. **Warsink, S. and Roodt, A.** 2012. (*N*-Benzoyl-*N′*,*N′*-diphenylthioureato-$\kappa^2 S$,O)(η^4-cycloocta-1,5-diene)-rhodium(I). *Acta Crystallographica Section* **E68:** m1053-m1054.

23. **Warsink, S. and Roodt, A.** 2012. *Trans*-Bis[1-(2-benzamidoethyl)-3-(2,4,6-trimethylphenyl)imidazole-2-ylidene]-dichloridopalladium(II). *Acta Crystallographica Section E* **E68:** m1075-m1076.

24. **Hill, T.N., Moeketsi, S., Mangwaela, S. and Steyl, G.** 2012. 5-(Phenyldiazenyl)tropolone. *Acta Crystallographica Section E* **E68:** o941.

25. **Brink, A., Visser, H.G. and Roodt, A.** 2012. 4-Fluro-2-[(3-methylphenyl)iminomethyl]phenol. *Acta Crystallographica Section E* **E68**, 01071.

26. **Alemayehu, A., Conradie, M.M. and Ghosh, A.** 2012. Electronic absorption spectra of copper corroles: unexpected substituent effects in *trans*-meso-A_2Btriarylcorrole. *Journal of Porphyrins and Phthalocyanines* **16:** 695-704.

27. **Schutte, M., Muller, T.J., Visser, H.G. and Roodt, A.** 2012. [Bis(pyridine-2-ylmethyl)amine-κ^3 *N′*,*N′*, *N″*]tricarbonylrhenium(I)bromide hemihydrate. *Acta Crystallographica Section E* **E68:** m741-m742.

28. **Schutte, M., Visser, H.G. and Roodt, A.** 2012. 2-(Ammoniomethyl)pyridinium sulfate monohydrate. *Acta Crystallographica Section E* **E68:** 0914.

29. **Schutte, M., Visser, H.G., Roodt, A. and Braband, H.** 2012. N-Benzylisatin. *Acta Crystallographica Section E* **E68:** o777.

30. **Wilhelm-Mouton, A., Bonnet, S.L., Ding, Y., Li, X-C., Ferreira, D. and van der Westhuizen, J.H.** 2012. Photochemistry synthesis. Part 2. Enantiomerically pure polyhydroxy-1,1,3-triarylpropan-2-ols. *Journal of Photochemistry and Photobiology A: Chemistry.* **227:** 18-24.

31. **Dennis, C.R. and Murray, D.M.** 2012. Success in first-year mathematics: School-leaving examinations and first-year performance. *South African Journal Science* **108:** 7-8**.**

32. **Dennis, C.R., Swarts, J.C. and Margerum, D.W.** 2012. Proton-transfer reactions of coppe(II)- and nickel(II) tetrapeptide complexes with bulky α-carbon. *Reaction Kinetics Mechanisms and Catalysis* **107:** 27-38.

33. **Muller, T.J., Conradie, J. and Erasmus, E.** 2012. A spectroscopic, electrochemical and DFT study of *para*-substituted ferrocene-containg chalcone derivatives: Structure of FcCOCHCH(ρ-$^{t}BuC_6H_4$). *Polyhedron* **33: 257-266.**

34. **Erasmus, J.J.C. and Conradie, J.** 2012. Oxidative addition of methyl iodide to [Rh(PhCOCHCOPh)(CO)(P(OCH_2)$_3$$CCH_3$)]: an experimental and computational study. *Central European Journal of Chemistry* **10(1):** 256-266.

35. **Erasmus, J.J.C., Conradie, M.M. and Conradie, J.** 2012. Kinetics and mechanism of the oxidative addition of methyl iodide to [Rh($CH_3COCHCOCF_3$)(CO)(P(OCH_2)$_3$$CCH_3$)]: an experimental and computational study. *Reaction Kinetics, Mechanisms and Catalysis* **B105**: 233-247.

36. **Zhao, H., Pierloot, K., Langner, E.H.G., Swarts, J.C., Conradie, J. and Ghosh, A.** 2012. Low-Energy States of Manganese-Oxo Corrole and Corrolazine: Multiconfiguration Reference ab Initio Calculations. *Inorganic Chemistry* **51:** 4002-4006.

37. **Kuhn, A., von Eschwege, K.G. and Conradie, J.** 2012. Reduction potentials of *para*-substituted nitrobenzenes-an infrared, nuclear magnetic resonance, and density functional theory study. *Journal of Physical Organic Chemistry* **25:** 58-68.

38. **von Eschwege, K.G., Hosten, E.C. and Muller, A.** 2012. 1,5-*Bis*(2-methylphenyl)-3-nitroformazan. *Acta Crystallographica Section E* **E68**: o425.

39. **von Eschwege, K.G., Muller, F. and Hill, T.** 2012. 1-(2-Methoxyphenyl)-2{[2-(2-methoxyphenyl)hydrazinyl-idene](nitro)methyl}diazene. *Acta Crystallographica Section E* **E68:** o609.

40. **von Eschwege, K.G., Muller, F. and Hosten, E.C.** 2012. (*E*)-1-[2-Methylsulfanyl)phenyl]-2-({(E)-2-[2-(methylsulfanyl)phenyl]hydrazinyl-idene}(nitro)methyl)diazene. *Acta Crystallographica Section E* **E68:** o199-o200.

41. **Cheruvathur, A.V., Langner, E.H.G., Niemantsverdriet, J.W. and Thüne, P.C.** 2012. In Ditu ATR-FTIR Studies on $MgCk_2$-Dissobutyl Phthalate Interactions in Thin Film Ziegler – Natta Catalysts. *Langmuir* **28:** 2643-2651.

42. **Langner, E.H.G., Swarts, J.C., Tuchscherer, A., Lang, H., Joone, G.K. and van Rensburg, C.E.J.** 2012. Superior Cytotoxicity of Hydrophylic Gold Carboxylato Complexes over Hydrophylic Silver Carboxylates. *Anticancer Research* **32:** no 7 2697-2701.

43. **Ahmad, E.E.M. and Luyt, A.S.** 2012. Morphology, Thermal, and Dynamic Mechanical Properties of Poly(lactic acid)/Sisal Whisker Nanocomposites. *Polymer Composites* **33:**1025-1032.

44. **Patra, A.K., Dube, K.S., Sanders, B.C., Papaefthymiou, G.C., Conradie, J., Ghosh, A. and Harrop, T.C.** 2012. A thermally stable $\{FeNO\}^8$ complex: properties and biological reactivity of reduced MNO systems. *Chemical Science* **3,** 364-369.

45. **Motaung, T.E., Luyt, A.S., Saladino, M.L., Martino. D.C. and Caponetti, E.** 2012. Morphology, mechanical properties and thermal degradation kinetics of PMMA-zirconia nanocomposites prepared by melt compounding. *eXpress Polymer Letters* **6, 11,** 871-881.

46. **Fourie, E., Erasmus, E., Swarts, J.C., Tuchschere, A., Jakob, A., Lang, G., Joone, G.K. and van Rensburg, C.E.J.** 2012. Cytotoxicity of Hydrophylic Silver Carboxylato Complexes. *Anticancer Research* **32:** 519-522.

47. **Langner, E.H.G., Swarts, J.C., Tuchscherer, A., Lang, H., Joone, G.K. and van Rensburg, C.E.J.** 2012. Superior Cytotoxicity of Hydrophylic Gold Carboxylato Complexes Over Hydrophulic Silver Carboxylates. *Anticancer Research* **32:** 2697-2702.

48. **Gericke, H.J., Muller, A.J. and Swarts, J.C.** 2012. Electrochemical Illumination of Intramolecular Communication in Ferrocene-Containing *tris*-β-Diketonato Aluminum(III) Complexes; Cytotoxicity of $Al(FcCOCHCOCF_3)_3$. *Inorganic Chemistry* **51**:1552-1561.

49. **Erasmus, E., Thüne, P.C., Verhoeven, M.W.G.M., Niemantsverdriet, J.W. and Swarts, J.C.** 2012. A new approach to silver-catalysed aerobic oxidation of octadecanol: Probin catalysts utilizing a flat, two-dimensional silicon-based model support system. *Cataysis Communications* **27:** 193-199.

50. **Kemp, K.C., Nell, M.J., van Rensburg, C.E.J. and Swarts, J.C.** 2012. Cytotoxicity of Ruthenoncene-containing β-Diketones. *Anticancer Research* **32:** 2915-2918.

51. **Lötter, S.J., Purcell, W., Nel, J.T. and Snyders, E.** 2012. Alternative dissolution of zircon samples and simultaneous analysis of major and trace components. *The Journal of The Southern African Institute of Mining and Metallurgy* **112:** 1-8.

52. **Venter, G.J.S., Steyl, G. and Roodt, A.** 2012. Dicarbonyl[4-(2,6-dimethylphenylamino)pent-3-en-2-onato-κ^2N,O]rhodium(I). *Acta Crystallographica Section E* **E68:** m666-m667.

53. **Venter, G.J.S., Steyl, G. and Roodt, A.** 2012. 4-(2,3-Dimethylanilino)pent-3-en-2-one. *Acta Crystallographica Section E* E68: 02930-02931.

54. **van der Berg, P.C.W., Visser, H.G., Roodt, A. and Muller, T.J.** 2012. 2-Amino-6-(quinolinw-2-carboxamido)pyridinium nitrate. *Acta Crystallographica Section E* **E68:** o2808.

55. **van der Berg, P.C.W., Visser, H.G. and Roodt, A.** 2012. N,N'-(4,5-Dimethyl-1,2-phenylene)*bos*(pyridine-2-carboxamide. *Acta Crystallographica Section E* **E68**, o2739.

56. **Gusowski M.A., Swart H.C., Karlsson L. and Trzebiatowska-Gusowski M.** (2012). NaYF4:Pr3+ nanocrystals displaying photon cascade emission. *Nanoscale***, 4** 541 – 546.

57. **von Eschwege, K.G.** 2012. Oxidation resilient dithizones – Synthesis, cyclic voltammetry and DFT perspectives. *Polyhedron* **39:** 99-105.

58. **Hill, T.N., Kuo-C.-M and Bezuidenhoudt, B.C.B.** 2012. 1-(3-Benzyl-4,6-dibenzyloxy-2-hydroxyphenyl)ethanone. *Acta Crystallographica Section E* **E68:** o2863

59. **Engelbrecht, I., Visser, H.G. and Roodt, A.** 2012. Bis[N,N-bis(diphenylphosphanyl)cyclopentanamine-κ^2P,P']platinum(II)bis(trifluoromethanesulfonate). *Acta Crystallographica Section E* **E68**, m916-m917.

60. **Engelbrecht, I., Visser, H.G. and Roodt, A.** 2012. Tricarbonylbis(triphenylphosphane-κP)-iridium(I) hexafluoridophosphate methanol monosolvate. *Acta Crystallographica Section E* **E68:** m1187-m1188.

61. **Schutte, M., Pretorius, C., Visser, H.G. and Roodt, A.** 2012. 5-(Trifluoromethoxy)isatin. *Acta Crystallographica Section E* **E68:** o3472-3472.

62. **Kamto, E.L.D., Atchadé, A. de T., Marston, A., Pegnyemb, D.E. and van der Westhuizen, J.H.** 2012. Chemical constituents from bark of *Millettia mannii* Baker (Papilionoideae-Leguminosae). *Biochemical Systematics and Ecology* **45:** 98-101.

63. **Schutte. M., Brink, A., Visser, H.G. and Roodt, A.** 2012. Tetra-μ_3-hydroxido-tetrakis[tricarbonyl-rhenium(I)] pyridine tetrasolvate. *Acta Crystallographica Section E* **E68:** m1208-m1209.

64. **Speck, J.M., Claus, R., Hildebrandt, A., Rüffer, T., Erasmus, E., van As, L., Swarts, J.C. and Lang, H.** 2012. Electron Transfer Studies on Ferrocenylthiophenes: Synthesis, Properties, and Electrochemistry. *Organometallics* **31:** 6373-6380.

65. **Venter, P.B., Sisa, M., van der Merwe, M.J., Bonnet, S.L. and van der Westhuizen, J.H.** 2012. Analysis of commercial proanthocyanidins. Part 1. The chemical composition of quebracho (*Schinopsis lorentzii* and *chinopsis balansae*) heartwood extract. *Phytochemistry* **73:** 95-105.

66. **Venter, P.B., Senekal, N.D., Amra-Jordaan, M., Bonnet, S.L. and van der Westhuizen, J.H.** 2012. Analysis of commercial proanthocyanidins. Part 2. An electrospray mass spectrometry investigation into the chemical composition of sulfited quebracho (*Schinopsis lorentzii* and *chinopsis balansae*) heartwood extract. *Phytochemistry* **78:** 156-169.

67. **Venter, P.B., Senekal, N.D., Kemp, G., Amra-Jordaan, M., Jhan, P., Bonnet, S.L. and van der Westhuizen, J.H.** 2012. Analysis of commercial proanthocyanidins. Part 3: The chemical composition of wattle (*Acacia mearnsii)* bark extract. *Phytochemistry* **83**: 153-167

68. **He, W., Bao, G.H., Ge, T.J., Luyt, A.S. and Jian, G.** 2012. Artificial neural networks in prediction of mechanical behavior of high performance plastic composites. *Key Engineering Materials* **501:** 27-31.

69. **Bungu, P.S.E., Schutte, M. and Steyl, G.** 2012. Bis[4-(4-bromophenylimino-κN)pent-2-en-2-olato-κO]copper(II). *Acta Crystallographica Section E* **E68:** m1373.

70. **Schutte, M., Visser, H.G. and Roodt, A.** 2012. (μ_1-Methanolato-κ^1O)-μ_1-methoxo-κ^1O-(μ_2-2-amino-1-methyl-5H-imidazol-4-one-κ^2N:N')-hexacarbonyldirhenium(I). *Acta Crystallographica Section E* **E68:** n1359-m1360.

71. **Molokoane, P.P., Schutte, M. and Steyl, G.** 2012. 2-Ethyl-3-hydroxy-1-isopropyl-4-pyridone. *Acta Crystallographica Section E* **E68:** o3235.

72. **Motaung, T.E., Saladino, M.L., Luyt, A.S. and Martino, D.F.C.** 2012. The effect of silica nanoparticles on the morphology, mechanical properties and thermal degradation kinetics of polycarbonate. *Composites Science and Technology* **73:** 34-39.

73. **Sefadi, J.S. and Luyt, A.S.** 2012. Morphology and properties of EVA/empy fruit bunch composites. *Journal of Thermoplastic Composite Material* **25:** 7, 895-914.

74. **Steyn, M., Visser, H.G. and Roodt, A.** 2012. Tetrakis(5,7-dimethylquinolin-8-olato-κ^2N,O)zirconium(IV) dimethylformamide disolvate. *Acta Crystallographica Section E* **E68:** m1344-m1345.

75. **Pretorius, C., Venter, J.A. and Roodt, A.** 2012. *Trans*-Bis(1,3-diphenylpropane-1,3-dionato)methanol)oxidovanadium(IV) methanol disolvate. *Acta Crystallographica Section E* **E68:** m1442-m1443.

76. **Pretorius, C. and Roodt, A.** 2012. (Benzoylacetonato-κ^2O,O')dicarbonylrhodium(I). *Acta Crystallographica Section E* **E68:** m1451-m1452.

77. **Schutte, M., Roodt, A. and Visser, H.G.** 2012. Coordinated Aqua vs Methanol Substitution Kinetice in *fac*-Re(I) Tricarbonyl Tropolonato Complexes. *Inorg. Chem.* **51:** 11996-12006.

78. **Barnard, N.I. and Hill, T.** 2012. Bis(diphenyl-*p*-tolylphosphane-κP(2-hydroxy-3,5,7-bromocyclohepta-2,4,6-trienonato-κ^2O,O')copper(I). *Acta Crystallographica Section E* **E68:** m1354-m1355.

79. **Trandafilovic, L.V., Luyt, A.S., Bibic, N., Dimitrijevic-Brankovic, S., Georges, M.K., Radhakrishnan, T. and Djokovic, V.** 2012. Formation of nano-plate silver particles in the presence of polyampholyte copolymer. *Colloids and Surfaces A: Physicochemical and Engineering Aspects,* **414**: 17-25.

80. **Mofokeng, J.P., Luyt, A.S., Tabi, T. and Kovacs, J.** 2012. Comparison of injection moulded, natural fibre-reinforced composites with PP and PLA as matrices. *Journal of Thermoplastic composite material* **25:8** 27-948.

81. **von Eschwege, K.G., Swarts, J.C., Aquino, M.A.S. and Cameron, T.S.** 2012 (1,5-Diphenylthiocarbazonato-κS)-trimethyltin(IV). *Acta Crystallographica Section E.* **E68:** m1518-m1518.

82. **Young, C., Roodt, A. and Bezuidenhoudt, B.C.B.** 2012. μ-(2,2'-Bipyrimidine)-bis[dichloride-palladium(II)] dimethylformamide monosolvate. *Acta Crystallographica Section E.* **E68:** m1374-m1374.

83. **Gohain, M., Loganathan, N., Bezuidenhoudt, B.C.B. and Roodt, A.** 2012. 4-(2-Bromophenyl)-2-phenylpyrano-[3,2-c]chromen-5(4H)-one. *Acta Crystallographica Section E.* **E68: o3279-o3280**

84. **Thomas, K.E., Slemayehu, A.B., Conradie, J., Beavers, C.M. and Ghosh, A.** 2012. The Structural Chemistry of Metallocorroles: Combined X-ray Crystallography and Quantum Chemistry Studies Afford Unique Insights. *Accounts of chemical research* **45**:8 1203-1214.

85. **Conradie, J.** 2012. Conformational analysis of tripheylphosphine in square planar organometallic comples: [(PPh_3)($ML^1L^2L^3$)] and [M(acac)(L')(PPh_3)]. *Dalton Transactions* **41:** 10633-10642.

86. **van Tonder, J., Gohain, M., Loganathan, N. and Bezuidenhoudt, B.C.B.** 2012. 2,5-Dihexylthiophene 1,1-dioxide. *Acta Crystallographica Section E.* **E68:** o3437-o3437.

87. **Ochigbo, S.S., Luyt, A.S., Mofokeng, J.P., Antic, Z., Dramicanin, M.D. and Djokovic, V.** 2012. Dynamic Mechanical and Thermal Properties of the Composites of Thermoplastic Starch and Lanthanum Hydroxide Nanoparticles. *Journal of Applied Polymer* 10.1002/APP 37859, 699-709.

88. **Herbst, L., Visser, H.G., Roodt, A. and Pretorius, C.** 2012. (Acetylacetonato-κ2O,O')dichloride-bis(methanolato-κO)niobium(V). *Acta Crystallographica Section E.* **E68:** m1392-m1392

89. **Hill, T.N. and Roodt, A.** 2012. (Nitrato-κO)tris[tris(4-fluorophenyl)-phosphane-κP]copper(I). *Acta Crystallographica Section E.* **E68:** m1396-m1397.

90. **Venter, G.J.S., Brink, A., Steyl, G. and Roodt, A.** 2012. 4-(20Chlorophenylamino)-pent-3-en-2-one. *Acta Crystallographica Section E.* **E68:** o3101-o3101.

91. **Monnahela, O.S., Vilakazi, B.M., Wagener, J.B., Roodt, A., Carstens, P.A.B. and Retief, W.L.** 2012. A thermogravimetric study ib tge fkyirubatuib if zirconium and hafnium oxides with fluorine gas. *Journal of Fluorine Chemistry* **135**, 246-249.

92. **Csoka, L., Bozanic, D.K., Nagy, V., Dimitrijevic-Brankovic, S., Luyt, A.S., Grozdits, G. and Djokovic, V.** 2012. Viscoelastic properties and antimicrobial activity of cellolose fiber sheets impreganated with Ag nanoparticles. *Carbohydrate Polymers* **90:**1139-1146.

93. **Erasmus, E., Niemantsverdriet, J.W. and Swarts, J.C.** 2012. Preparation and Characterization of Supported Bimetallic Pd^{IV} – Co^{III} Model Catalyst from Organometallic Single Source Precursor for Aerobic Oxidation of Alcohols. *Langmuir* **28:** 16477-16484.

94. **Swart, C.W., Dithebe, K., Phl, C.H., Swart, H.C., Coetsee, E., van Wyk, P.W.J., Swarts, J.C., Lodolo, E.J. and Kock, J.L.F.** 2012. Gas bubble formation in the cytoplasm of a fermenting yeast. *FEMS Yeast Res* **12:** 867-869.

95. **von Eschwege, K.G., Swarts, J.C., Aquino, M.A.S. and Cameron, T.S.** 2012. (1,5-Diphenylthiocarbazonato-κS)trimethyltin(IV). *Acta Crystallographica Section E* **E68:** m1518.

96. **Conradie, J., Gracia, J. and Niemantsverdriet, J.W.** 2012. Energetic Driving Force of H Spillover between Rhodium and Titania Surfaces: A DFT View. *The Journal of Physical Chemistry* **116:** 25362-25367.

97. **Conradie, J.** 2012. Prediction of chemical and electrochemical oxidation potentials of β-diketonatobis(triphenylphosphite)rhodium(I) complexes: A DFT study. *Inorganica Chimica Acta* **392:** 30-37.

98. **Conradie, J.** 2012. Reactivity of [Rh(β-diketonato)(cod)] complexes: A DFT approach. *Journal of Organometallic Chemistry* **719:** 8-13.

99. **Chiweshe, T.T., Purcell, W. and Venter, J.A.:** 2012. Quantification of Rhodium in a Series of Inotganic and Organometallic Compounds using Cobalt as Internal Standard. *South African Journal of Chemistry* **66:** 7-16.

100. **Nete, M., Purcell, W., Snyders, E., Nel, J.T. and Beukes, G.** 2012. Characterization and alternative dissolution of tantalite mineral samples from Mozambique. *The Journal of the Southern African Institute of Mining and Metallurgy* **112:** 1079-1086.

101. **Shikanga, E.A., Viljoen, A.M., Combrinck, S., Marston, A., Gericke, N.** 2012. The chemotypic variation of *Sceletium tortuosum* alkaloids and commercial product formulations. *Biochemical Systematics and Ecology* **44:** 364-373.

102. **Marston, A.** 2012. Chapter 12, High-speed Countercurrent Chromatography in the Separation of Polyphenols. *Recent Advances in Polyphenol Research,* 1st Ed. John Wiley & Sons Ltd. Published 2012 by Blackwell Publishing Ltd.