PUBLICATION LIST - Prof. Cameron Jones (November 2019)

Review Articles


Book Chapters


Refereed Articles


30. Alkylation of (As,Sb,Bi)Cl_3: Formation of \([\text{As,Sb,Bi}R\text{Cl}_2]\), (E)-\([\text{BiR(CH}_2\text{CH}=\text{C}(\text{SiMe}_3)\text{C}_5\text{H}_4\text{N}-2)]\) and 2-CH(SiMe_3)_2C_5H_4N-5-R (R = C(SiMe_3)_2C_5H_4N-2'), C. Jones, L.M. Engelhardt, P.C. Junk, D.S. Hutchings, W.C. Patalinghug, C.L. Raston, A.H. White, J. Chem. Soc., Chem. Commun., 1991, 1560.


64. 1,2-Additions of Phenylselenyl Halides to Phosphaalkynes, M.D. Francis, C. Jones, P.C. Junk, J.L. Roberts, Phosphorus, Sulfur and Silicon, 1997, 130, 23.


79. First Structural Characterisation of 1,2,4-Selenadiphosphole and 1,2,4-Telluradiphosphole Ring Systems. Crystal and Molecular Structures of the η¹-Complexes [M(CO)₅(P₂SeC₂Bu₂)], (M = Cr, W) and [W(CO)₅(P₂TeC₂Bu₂)], M.D. Francis, D.E. Hibbs, P.B. Hitchcock, M.B. Hursthouse, C. Jones, T. Mackewitz, J.F. Nixon, L. Nyulaszi, M. Regitz and N. Sakarya, *J. Organomet. Chem.*, 1999, 580, 156.


107. The Molecular Structure of [{(C$_5$H$_3$MeNH-2)$_2$Li(µ-Br)$_2$Li(C$_5$H$_3$MeNH-2)$_2$}], C. Jones, P.C. Junk and N.A. Smithies, *Main Group Metal Chemistry*, 2001, 24, 801-802.


110. Reactions of Bulky Alkyl Lithium Reagents with a Phosphaalkyne (P*=Bu$^\prime$): Synthesis and Structural Characterisation of a Mixed Valent Phosphorus Cage Compound, P$^{III}$[{µ- C(H)(Bu$^\prime$)$_2$]$_2$µ-C(H)(SiMe$_3$)Si(Me)$_2$C(H)$_2$P=Si(SiMe$_3$)$_2$}$_2$, and a Phosphaalkenyl Substituted η$^3$-Azaallyl-lithium Complex, [Li(tmeda){C(SiMe$_3$)(2-NC$_5$H$_3$Me-6)[P=C(Bu$^\prime$)(SiMe$_3$)]}]$^-$, C. Jones and A.F. Richards, *J. Organomet. Chem.*, 2002, 645, 256-261.
Lithium and Magnesium Complexes of ortho-Dimethylarsinoaniline and a Novel Insertion of Dimethylsilanone into a Mg-N Bond - Molecular Structures of \[\{\text{Li}(\mu-\eta^1-1-\text{NHC}_6\text{H}_4\text{AsMe}_2)(\text{thf})_2\}_2\] and the Insertion Product \[\{\text{Mg}_2(\mu-\eta^1-\text{NHC}_6\text{H}_4\text{AsMe}_2)_2(\mu-\eta^3-\text{OSiMe}_2\text{NC}_6\text{H}_4\text{AsMe}_2)(\text{thf})\}_2\], M.L. Cole, C. Jones and P.C. Junk, *New. J. Chem.*, 2002, 89 - 93.


\[\{\eta^5\text{C}_5\text{H}_5}\text{Fe(CO)}_2\text{B}(2,4,6\text{-Me}_3\text{C}_6\text{H}_2\): Synthesis, Spectroscopic and Structural Characterisation of a Transition Metal Complex Containing an Unsupported Bridging Borylene Ligand, S. Aldridge, D.L. Coombs and C. Jones, *Chem. Commun.*, 2002, 856-857.


Synthesis and Structural Characterisation of the First Tris(diacylphosphido)phosphines, \[\{\text{E}\{\text{C(O)R}\}_2\}_3\], \(\text{E} = \text{P}\) or \(\text{As}\), \(\text{R} = \text{Bu}^t\) or \(\text{Ph}\), C. Jones, P.C. Junk and T.C. Williams, *J. Chem.Soc., Dalton Trans.*, 2002, 2417 - 2418.


137. The Molecular Structure of [InBr$_2$(N(SiMe$_3$)$_2$)$_2$][Li(DME)$_3$], C. Jones, P.C. Junk and N.A. Smithies, *Main Group Metal Chemistry*, 2003, 26, 35-37.


144. The Synthesis and Structural Characterisation of [IrCl(COD)(PE$_3$_h)$_n$], n = 1 or 2, and Orthometallated Vaska's Compound, [IrHCl(CO)(PPh$_3$)$_2$h$_2$PPh$_2$(C$_6$H$_4$)$_2$}], M. Brym and C. Jones, *Transition Metal Chemistry*, 2003, 28, 595 – 599.


151. The Molecular Structure of [{µ-Ga(Ar-DAB)}{µ-K(tmeda)}{µ-C$_5$H$_5$}{µ-K(tmeda)}].(C$_7$H$_8$)$_{1.5}$, Ar-DAB = {(C$_6$H$_3$Pr$_2$-2,6)N=}{C$_6$H$_3$Pr$_2$-2,6}NC(H)=}_{2}, R.J. Baker and C. Jones, *Main Group Metal Chemistry*, 2003, 26, 267 - 268.


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167. Evidence for the First Oxidative Insertion of a Transition Metal into a Digallane(4): Synthesis, Structural Characterisation and EPR Studies of \([\text{Cp}_2\text{Zr}^{\text{III}}\{\text{Ga}[\text{N(Ar)}\text{C(H)}]\text{}_{2}\text{]}\text{]}\text{]}\text{][\text{Li(THF)}]_4\], Ar = \text{C}_6\text{H}_3\text{Pr}^{2-2,6}, R.J. Baker, C. Jones and D.M. Murphy, Chem. Commun., 2005, \textbf{1339-1341}.

168. Reactions of a Gallium(II)-Diazabutadiene Dimer, \([\{\{(\text{H})\text{C(Bu)}\text{N}\}_{2}\text{]}\text{Ga}_{2}\}], \) with \(\text{[ME(SiMe}_3\text{)]_2}\) (M = Li or Na; E = N, P or As): Structural, EPR and ENDOR Characterization of Paramagnetic Gallium(III) Pnictide Complexes, K.L. Antcliff, R.J. Baker, C. Jones, D.M. Murphy and R.P. Rose, Inorg. Chem., 2005, \textbf{44}, 2098 - 2105.


192. Rare examples of mononuclear, homoleptic antimony(III) and bismuth(III) aryloxides, M. Brym, C. Jones and P.C. Junk, Main Group Chemistry, 2006, 5, 13 - 19.


201. Homoleptic Lanthanide(II)-Bis(Guanidinate) Complexes, [Ln(Giso)$_2$] (Giso = [(ArN)$_2$CN(C$_6$H$_{11}$)$_2$], Ar = C$_6$H$_3$Pr$_2$-2,6): Planar 4-Coordinate (Ln = Sm or Eu) vs Distorted Tetrahedral (Ln = Yb) Geometries, D. Heitmann, C. Jones, P.C. Junk, K.-A. Lippert and A. Stasch, *Dalton Trans.*, 2007, 187 - 189.


Differing Reactivities of P\(_\text{ºCMe}\) and P\(_\text{ºCBu}^1\) Towards a Triphosphabenzene and a Tetraphosphabarrelene: Synthesis of new Phosphaalkyne Pentamers (P\(_3\text{C}_3\text{Me}_n\text{Bu}_i\text{Bu}_j\text{Bu}_l\), n = 0, 1 or 2), C. Jones, C. Schulten and A. Stasch, *Dalton Trans.*, 2007, 1929 - 1933.


Synthesis and Structural Characterization of a Terphenyl Substituted Phosphaalkyne, P\(_\text{ºC}{\text{C}_6\text{H}_3}{\text{C}_6\text{H}_2\text{Me}_3\text{-2,4,6}}\text{2-2,6}\), C. Jones and M. Waugh, *J. Organomet. Chem.*, 2007, 692, 5086-5090.


Cycloaddition Reactions of Transition Metal Hydrazides with Alkynes and Heteroalkynes: Coupling of Ti=NNPh2 with PhCCMe, PhCH, MeCN and tBuCP, J.D. Selby, C. Schulten, A.D. Schwarz, A. Stasch, E. Clot, C. Jones and P. Mountford, Chem. Commun., 2008, 5101-5103.


240. X-ray Crystallographic Studies of [(LH)GaCl₂] and [Li(THF)₄][Ga(L)₂] (L = C₆H₄(NCH₂Bu)₂-1,2), C. Jones, D.P. Mills and A. Stasch, Main Group Metal Chemistry, 2009, 32, 161-164.


254. Groups 2 and 12 Metal Gallyl Complexes Containing Unsupported Ga-M Covalent Bonds (M = Mg, Ca, Sr, Ba, Zn or Cd), O. Bonello, C. Jones, A. Stasch and W.D. Woodul, Organometallics, 2010, 29, 4914-4922.


291. Comparative study of phosphine and NHC stabilized group-13 adducts [L(EH₃)] and [L₂(E₂H₆)] (E = B – In; L = PMe₃, NHC; n = 4, 2, 0; NHC = N-heterocyclic carbene), N. Holzmann, A. Stasch, C. Jones and G. Frenking, *Chem. Eur. J.*, 2013, 19, 6467-6479.


**Invited Lectures**

1. "New Directions in Low Coordination Group 15 Chemistry", Chemistry Department, Tohoku University, Sendai, Japan, April 1995.

2. "New Directions in Low Coordination Group 15 Chemistry", Chemistry Department, University of Leeds, February, 1996.

3. "New Directions in Low Coordination Group 15 Chemistry", Chemistry Department, Imperial College of Science, Medicine and Technology, April, 1996.

5. "New Directions in Low Coordination Group 15 Chemistry", Chemistry Department University of Western Australia, August 1996.

6. "New Directions in Low Coordination Group 15 Chemistry", Chemistry Department University of Waterloo, Canada, April 1997.

7. RSC Sponsored Lecture - "The Low Coordination Chemistry of Arsenic and Antimony" Chemistry Department, University of Wales, Cardiff, October 1997.


10. "The Low Coordination Chemistry of Arsenic and Antimony", Chemistry Department, University of Ohio, Athens, USA, April, 1998.


20. "The Stabilisation and Reactivity of Indium Hydride Complexes" Chemistry Department, University of Western Australia, July, 2000.

22. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, University of Münster, Germany, February, 2001.

23. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, University of Leipzig, Germany, February, 2001.

24. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, UMIST, November, 2001.

25. RSC sponsored lecture - "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, Cardiff University, December, 2001.

26. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, Cambridge University, January, 2002.

27. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, Sheffield University, January, 2002.

28. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, Leeds University, January, 2002.

29. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, Newcastle University, May, 2002.

30. "The Synthetic Versatility of Phosphavinyl Grignard Reagents"
Chemistry Department, Monash University, Australia, July, 2002.

31. "Developments in Low Oxidation State Gallium and Indium Chemistry"
invited lecture at the RSC meeting on New Strategies in Metal Chemistry.
Chemistry Department, Nottingham University, February, 2003.

32. "The Stabilisation and Coordination Chemistry of a Gallium(I) Carbene Analogue"
Chemistry Department, Imperial College, March, 2003.

33. "The Stabilisation and Unusual Reactivity of a Gallium(I) N-Heterocyclic Carbene Analogue"
invited lecture of the German Chemical Society, Chemistry Department,
Leipzig University, Germany, December, 2003.

34. "The Stabilisation and Unusual Reactivity of a Gallium(I) N-Heterocyclic Carbene Analogue"
Chemical Engineering Department, University of Applied Sciences,
Münster, Germany, December, 2003.

35. RSC sponsored lecture – "Anionic Gallium(I) Heterocycles: Analogies with N-Heterocyclic Carbenes"
Chemistry Department, Warwick University, February, 2004.


44. "Anionic Gallium(I) Heterocycles: Analogies with N-Heterocyclic Carbenes?" Chemistry Department, Oxford University, February, 2005.


75. Group 2 Metal(I) Heterocycles: Stabilisation, Verification and Application. Department of Chemistry, University of Sydney, April, 2009.

76. "Bulky Guanidinates: Analogues of β-Diketiminate for the Stabilisation of low Oxidation State Metallacycles", Department of Chemistry, La Trobe University, June, 2009.

77. "Bulky Guanidinates: Analogues of β-Diketiminate for the Stabilisation of low Oxidation State Metallacycles", Department of Chemistry, University of Western Australia, June, 2009.


80. "Bulky Guanidinates and Related Ligands for the Stabilisation of Metal(I) Heterocycles", Department of Chemistry, Oxford University, September, 2009.

81. "Bulky Guanidinates and Related Ligands for the Stabilisation of Metal(I) Heterocycles", Invited Humboldt Prize Lecture, Department of Chemistry, Technische Universität, Berlin, Germany, September, 2009.

82. "Bulky Guanidinates and Related Ligands for the Stabilisation of Metal(I) Heterocycles", Department of Chemistry, Essen University, Germany, September, 2009.


87. "Molecular Magnesium(I) Compounds: From Chemical Landmarks to Versatile Reagents", Invited lecture of the German Chemical Society, Department of Chemistry, Münster University, Germany, April, 2010.

88. "Molecular Magnesium(I) Compounds: From Chemical Landmarks to Versatile Reagents", Invited lecture of the German Chemical Society, Department of Chemistry, Marburg University, Germany, April, 2010.


100. "Molecular Magnesium(I) Compounds: "Bespoke" Reducing Agents for the Synthetic Chemist", Department of Chemistry, Heidelberg University, Germany, October, 2011.

101. "Modern Main Group Chemistry: From Fundamental Advances to Functional Molecules" RACI Burrows Award Lecture, IC11, University of Western Australia, December, 2011.


130. "The Stabilization and Transition Metal-Like Reactivity of Low Oxidation State/Low Coordination Main Group Complexes", RSC Australasian Lectureship, University of Melbourne, August, 2016.


133. "The Stabilization and Transition Metal-Like Reactivity of Low Oxidation State/Low Coordination Main Group Complexes", Oxford University, UK, September, 2016.

134. "The Stabilization and Transition Metal-Like Reactivity of Low Oxidation State/Low Coordination Main Group Complexes", RSC Australasian Lectureship, University of Tasmania, October, 2016.


