

Dr Rebecca Lucy Melen: Full Publications List

Summary

Total number of publications: 42

Publications since joining Cardiff (2 years): 15

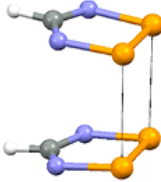
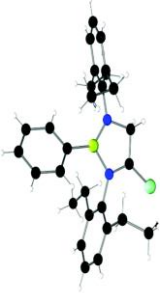
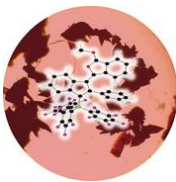
Number of publications as corresponding author: 20

h – index: 11 (Web of Science)

Note: for reasons of policy, some of the author lists are in alphabetical order and the primary researcher(s) associated with each paper is (are) underlined

Independent publications in the last 2 years

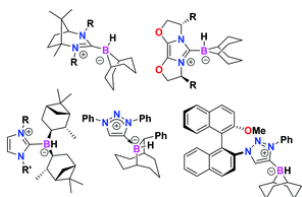
Refereed Journal Articles

-  1. Melen,* R.L., Less, R.J., Pask, C.M., Rawson,* J.M. “Structural Studies of Perfluoroaryldiselenadiazolyl Radicals: Insights into Dithiadiazolyl Chemistry”, *Inorg. Chem.*, 2016, **55**, 11747.
Impact factor: 4.820
-  2. Lawson, J.R., Wilkins, L.C., Andre, M., Richards, E., Ali, M.N., Platts, J.A., Melen,* R.L. “Synthesis and Reactivity of N,N’-1,4-diazabutadiene Derived Borocations”, *Dalton Trans.*, 2016, **45**, 16177.
Impact factor: 4.117
3. Wilkins, L.C., Lawson, J.R., Wieneke, P., Rominger, F., Hashmi, A.S.K., Hansmann, M.M., Melen,* R.L. “The Propargyl Rearrangement to Functionalised Allyl- Boron and Borocation Compounds”, *Chem. Eur. J.*, 2016, **22**, 14618.
Impact factor: 5.771
-  4. Wilkins, L.C., Günther, B.A.R., Walther, M., Lawson, J.R., Wirth, T., Melen,* R.L. “Contrasting Frustrated Lewis Pair Reactivity Using Selenium and Boron-Based Lewis Acids”, *Angew. Chem., Int. Ed.*, 2016, **55**, 11292; “Gegensätzliche Reaktivität frustrierter Lewis-Paare mit Selen- und Bor-basierten Lewis-Säuren”, *Angew. Chem.*, 2016, **128**, 11462.
Impact factor: 11.709

X

5. Lam, J., Günther, B.A.R., Farrell, J.M., Eisenberger, P., Bestvater, B.P., Newman, P.D., **Melen**,* R.L. Crudden,* C.M., Stephan,* D.W. "Chiral Carbene–Borane Adducts: Precursors for Borenium Catalysts for Asymmetric FLP Hydrogenations", *Dalton. Trans.*, 2016, **45**, 15303.

Impact factor: 4.117



X

6. Wilkins, L.C., **Melen***, R.L. "Enantioselective Main Group Catalysis: Modern Catalysts for Organic Transformations", *Coord. Chem. Rev.*, 2016, **324**, 123.

Impact factor: 12.994

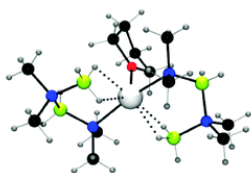


X

7. **Melen**,* R.L. "Dehydrocoupling Routes to Element-Element Bonds Catalysed by Main Group Compounds", *Chem. Soc. Rev.*, 2016, **45**, 775 (*invited review, back cover*).

Impact factor: 34.09

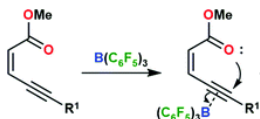
Times cited: 1



X

8. Wilkins, L.C., Hamilton, H.B., Kariuki, B.M., Hashmi, A.S.K., Hansmann, M.M., **Melen**,* R.L. "Lewis acid-base 1,2-addition reactions: Synthesis of pyrylium borates from en-ynoate precursors", *Dalton Trans.* 2016, **45**, 5929 (*invited article, special issue on main group transformations*).

Impact factor: 4.117

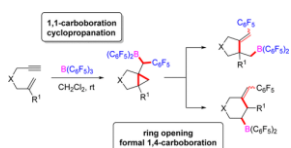


X

9. Hansmann,* M.M., **Melen**, R.L., Rudolph, M., Rominger, F., Wadepohl, H., Stephan,* D.W., Hashmi,* A.S.K. "Cyclopropanation / Carboboration Reactions of Enynes with $B(C_6F_5)_3$ ", *J. Am. Chem. Soc.*, 2015, **137**, 15469.

Impact factor: 13.038

Times cited: 4

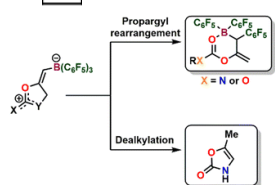


X

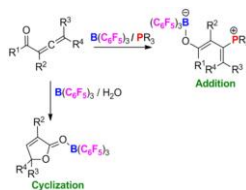
10. Wilkins, L.C., Wieneke, P., Newman, P.D., Rominger, F., Hashmi, A.S.K., Hansmann*, M.M., **Melen**,* R.L. "Pathways to functionalized heterocycles: The propargyl rearrangement using $B(C_6F_5)_3$ ", *Organometallics*, 2015, **34**, 5298.

Impact factor: 4.186

Times cited: 2



X

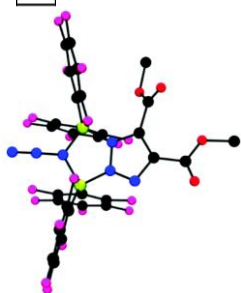


11. **Melen**,* **R. L.**, **Wilkins**, L.C., Kariuki, B.M., Wadepohl, H., Gade, L.H., Hashmi, A.S.K., Stephan, D.W., Hansmann*, M.M. "Diverging Pathways in the Activation of Allenes with Lewis Acids and Bases: Addition, 1,2-Carboboration and Cyclization", *Organometallics*, 2015, **34**, 4127.

Impact factor: 4.186

Times cited: 3

X



12. **Melen**, **R.L.**, Stephan*, D.S. "Cycloaddition Reactions of $(C_6F_5)_2BN_3$ with Dialkyl Acetylenedicarboxylates", *Dalton. Trans.*, 2015, **44**, 5045.

Impact factor: 4.117

Times cited: 1

X

13. **Bähr**, A., Ollegott, K., Wilkins, L.C., Kariuki, B.M., **Melen***, **R.L.** " σ - versus π -activation of alkynyl benzoates using $B(C_6F_5)_3$ ", *Molecules*, 2015, **20**, 4530 (*invited article, special issue on boron chemistry*).

Impact factor: 2.465

14. **Deng**, Q.-H., **Melen**, **R.L.**, Gade*, L.H. "Anionic Chiral Tridentate N-Donor Pincer Ligands in Asymmetric Catalysis", *Acc. Chem. Res.*, 2014, **47**, 3162. Impact factor: 22.003; Times cited: 14.

15. **Sauer**, D.S., **Melen**, **R.L.**, Kruck, M., Gade*, L.H. "Chromophores, Fluorophores and Robust Ancillary Ligands for Molecular Catalysts: 1,3-Bis(2-pyridylimino)isoindolines", *Eur. J. Inorg. Chem.*, 2014, 4715 (*front cover*). Impact factor: 2.686; Times cited: 6.

16. **Melen***, **R.L.**, Simmonds, H.R., Wadepohl, H., Gade, L.H., Wood, P.T., Wright*, D.S. "Formation of an Unusual Bis(diguanidinate) Ligand *via* Nucleophilic Attack of a Guanidinate onto a Carbodiimide", *Aus. J. Chem.*, 2014, **67**, 1030 (*invited article*). Impact factor: 1.558; Times cited: 1.

17. **Melen**, **R.L.**, **Hansmann**, M.M., Rominger, F., Hashmi*, A.S.K., Stephan*, D.W., "Lewis Acid Promoted Cyclisation of Propargyl Esters: The First Structural Characterisation of a Dioxolium Compound", *Chem. Commun.*, 2014, **50**, 7243 (*hot article, front cover*). Impact factor: 6.567; Times cited: 8.

18. **Melen***, **R.L.** "Applications of Boron Reagents in the Synthesis of Heterocycles", *Chem. Commun.*, 2014, **50**, 1161 (*invited feature article, inside cover*). Impact factor: 6.567; Times cited: 25.

19. **Hansmann**, M.M., **Melen**, **R.L.** Rominger, F., Hashmi*, A.S.K., Stephan*, D.W., "Boron Allylation Reagents Derived from Propargyl Carboxylates", *J. Am. Chem. Soc.*, 2014, **136**, 777. Impact factor: 13.038; Times cited: 17.

20. **Melen***, **R.L.** "Applications and reactivity trends of homoleptic *p*-block metal amido reagents", *Dalton Trans.*, 2013, **42**, 16449 (*invited perspective*). Impact factor: 4.117; Times cited: 3.

21. **Melen, R.L.**, Hansmann, M.M., Lough, A.J., Hashmi, A.S.K., Stephan*, D.W. "Cyclisation versus 1,1-Carboboration: Reactions of $B(C_6F_5)_3$ with Propargyl Amides", *Chem. Eur. J.*, 2013, **19**, 11928. Impact factor: 5.771; Times cited: 15.
22. **Melen, R.L.**, Lough, A.J., Stephan*, D.S. "Boron Azides in Staudinger Oxidations and Cycloadditions", *Dalton Trans.*, 2013, **42**, 8674 (I.F. = 4.117, cited). Impact factor: 4.117; Times cited: 4.
23. **Melen, R.L.**, Stephan*, D.S. "Cycloaddition Reactions Between Dicyclohexylboron Azides and Alkynes", *Dalton. Trans.*, 2013, **42**, 4795 (**hot paper**). Impact factor: 4.117; Times cited: 8.
24. **Melen***, R.L., Eisler, D.J., Hewitt, R.A., Rawson*, J.M. "Synthesis and structural studies on thioimides, $R_2C=NSR$ and sulfur diimides, $R_2C=NSN=CR_2$ ", *Dalton Trans.*, 2013, **42**, 3888. Impact factor: 4.117; Times cited: 1.
25. **Melen***, R.L., Rawson*, J.M. "Structural Variations on an Electron Precise Theme", *Coord. Chem. Rev.*, 2013, **257**, 1232. Impact factor: 12.994; Times cited: 2.
26. **Melen***, R.L., Rawson*, J. M., Eisler, D. J. "Structural Studies of Copper (II) Complexes Derived from Di-2-Pyridyl-Ketone, $(py)_2CO$ ", *Polyhedron*, 2012, **47**, 16. Impact factor: 2.011; Times cited: 4.
27. Less, R.J., **Melen, R.L.**, Wright*, D.S. "Catalytic Versus Stoichiometric Dehydrocoupling Using Main Group Metals", *RSC Advances*, 2012, **2**, 2191. Impact factor: 3.289; Times cited: 42.
28. Stokes, F.A., Less, R.J., Haywood, J., **Melen, R.L.**, Thompson, R.I., Wheatley*, A.E.H., Wright*, D.S., Johannes Johansson, A., Kloo, L. "Structure and Bonding of the First Mn(II) Phosphide Complex", *Organometallics*, 2012, **31**, 23. Impact factor: 4.186; Times cited: 13.
29. Hansmann, M.M., **Melen, R.L.**, Wright*, D.S. "Group 13 BN dehydrocoupling reagents, similar to transition metal catalysts but with unique reactivity", *Chem. Sci.*, 2011, **2**, 1554. Impact factor: 9.144; Times cited: 53.
30. Cowley, H.J., Holt, M.S., **Melen, R.L.**, Rawson, J.M., Wright*, D.S. "Catalytic dehydrocoupling of Me_2NHBH_3 with $Al(NMe_2)_3$ ", *Chem. Commun.*, 2011, **47**, 2682. Impact factor: 6.567; Times cited: 40.
31. **Melen, R.L.**, McPartlin, M., Wright*, D.S. "An unexpected dependence on the Sn(II) base; reactions of $Sn(NR_2)_2$ with aromatic dithiols", *Dalton Trans.*, 2011, **40**, 1649. Impact factor: 4.117; Times cited: 6.
32. McPartlin, M., **Melen, R.L.**, Naseri, V., Wright*, D.S. "Formation and Rearrangement of Sn(II) Phosphanediide Cages", *Chem. Eur. J.*, 2010, **16**, 8854. Impact factor: 5.771; Times cited: 15.
33. Chan, W.T.K., García, F., McPartlin, M., **Melen, R.L.**, Wright*, D.S. "Syntheses and structures of $[Me_2Si\{As(P^tBu)_3\}_2]$ and $[(CyP)_3SiMe_2]$ (Cy = cyclohexyl, C_6H_{11})", *J. Organomet. Chem.*, 2010, **695**, 1069 (**invited article**). Impact factor: 2.173; Times cited: 2.
34. Less, R.J., **Melen, R.L.**, Naseri, V., Wright*, D.S. "Recent perspectives on main group-mediated dehydrocoupling of P-P bonds", *Chem. Commun.*, 2009, **45**, 4929 (**invited review**) Impact factor: 6.567; Times cited: 33.
35. Bacon, C.E., Eisler, D.J., **Melen, R.L.**, Rawson*, J.M. "Formation of N-bridgehead thiadiazolium and selenadiazolium rings through an intramolecular cyclisation reaction", *Chem. Commun.*, 2008, **44**, 4924. Impact factor: 6.567; Times cited: 1.

Chapters in Books

36. **Melen***, R.L., Gade*, L.H. "New Chemistry with Anionic NNN-Pincer Ligands", in *The Privileged Pincer-Metal Platform: Coordination Chemistry & Applications*, ed. G. van Koten and R. A. Gossage. 2015, Volume 54 of the series *Topics in Organometallic Chemistry*, pp 179-208.
37. Less, R.J., **Melen**, R.L., Wright, D.S. "Group 2 (Be-Ba) and Group 12 (Zn-Hg)", *Organomet. Chem.*, 2011, **37**, 100.
38. Bullock, T.H., **Melen**, R.L., Wright, D.S. "Group 2 (Be-Ba) and Group 12 (Zn-Hg)", *Organomet. Chem.*, 2010, **36**, 168.
39. Clark, E.R., **Melen**, R.L., Rawson, J.M. "Oxygen, sulfur, selenium, tellurium and polonium", *Ann. Rep. Prog. Chem., Sect. A: Inorg. Chem.*, 2010, **106**, 119.
40. Haynes, D.A., **Melen**, R.L., Rawson, J.M. "Oxygen, sulfur, selenium, tellurium and polonium", *Ann. Rep. Prog. Chem., Sect. A: Inorg. Chem.*, 2009, **105**, 155.

Other articles (not peer reviewed)

41. **Melen***, R. L., Stephan*, D.W., "Main group transformations", *Dalton Trans.*, 2016, **45**, 5879. Impact factor: 4.117.
42. **Melen***, R.L., Grubbs, R.H. "Q&A: The bond shifter", *Nature*, 2013, **502**, S56 (doi:10.1038/502S56a). (*invited interview with 2005 Chemistry Nobel Prize winner, R. Grubbs*). Impact factor: 38.138.