Dr Rebecca Lucy Melen: Full Publications List

Summary of Publications

Total number of publications: 56

Publications since joining Cardiff (3 years): 27

Number of publications as corresponding author: 33

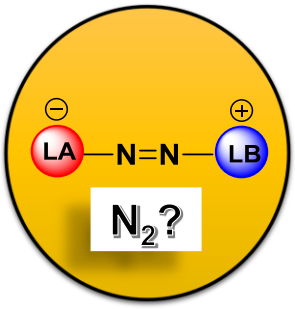
h – index: 13 (Web of Science)

Notes:

- 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 as corresponding author are indicated with an asterisk (*)
- All publications are in highly respected journals in the field (Q1) and are indicated by their impact factor in the list below.

Refereed Journal Articles

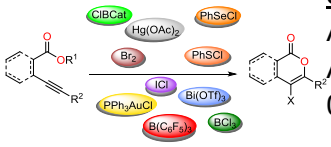
* 56.



Melen,* R.L. "A Step Closer to Metal-Free Dinitrogen Activation: A New Chapter in the Chemistry of Frustrated Lewis Pairs", *Angew. Chem. Int. Ed*., DOI: 10.1002/anie.201711945; " Metallfreie Stickstoffaktivierung: Ein neues Kapitel in der Chemie frustrierter Lewis-Paare", *Angew. Chem*., DOI:10.1002/ange.201711945.

Impact factor: 11.709

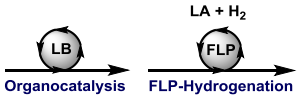
* 55.



Soltani, Y., Wilkins, L.C., **Melen,* R.L.** "A Comparative Assessment of Modern Cyclization Methods of Substituted Alkynyl Esters, Ethers, and Acids", *Synlett*, DOI: 10.1055/s-0036-1591862. (***Invited Synpacts article***).

Impact factor: 2.151

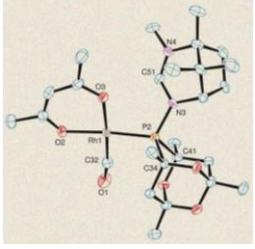
* 54.



Khan, I., Manzotti, M., Tizzard, G.J., Coles, S.J., **Melen,* R.L.** Morrill,* L.C. "Frustrated Lewis Pair (FLP)-Catalyzed Hydrogenation of Aza-Morita− Baylis−Hillman Adducts and Sequential Organo-FLP Catalysis", *ACS Catalysis*, 2017, **7**, 7748.

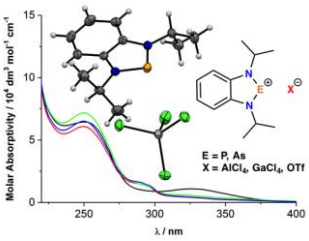
Impact factor: 10.614.

53.



Wilkins, L.C., **Melen, R.L.**, Platts, J.A., Newman,* P.D. "Amidine functionalized phosphines: tuneable ligands for transition metals", *Dalton Trans*., DOI: 10.1039/C7DT03343E.

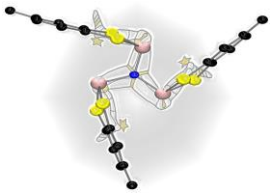
Impact factor: 4.117

* 52. 

Ould, D.M.C., Rigby, A.C., Wilkins, L.C., Adams, S.J., Platts, J.A., Pope, S.J.A., Richards, E., **Melen,* R.L.** "Investigations into the Photophysical and Electronic Properties of Pnictoles and Their Pnictenium Counterparts", *Organometallics*, DOI: 10.1021/acs.organomet.7b00564 (***invited article***).

Impact factor: 4.186

Times cited: 0

* 51. 

Tran, T.T.-P., Ould, D.M.C., Wilkins, L.C., Wright,* D.S. **Melen,* R.L.,** Rawson,* J.M. "Supramolecular Aggregation in Dithia-arsoles: Chlorides, Cations and *N*-centered Paddlewheels", *CrystEngComm*, 2017, **19**, 4696.

Impact factor: 3.474

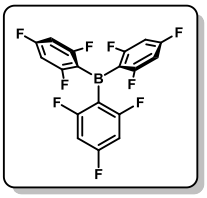
Times cited: 0

* 50. 

Soltani, Y., Wilkins, L.C., **Melen,* R.L.** "Stoichiometric and Catalytic C−C and C−H Bond Formation with $B(C_6F_5)_3$ via Cationic Intermediates", *Angew. Chem. Int. Ed.*, 2017, **56**, 11995; "Stöchiometrische und katalytische C-C- und C-H-Bindungsbildung mit $B(C_6F_5)_3$ über kationische Zwischenstufen", *Angew. Chem.*, 2017, **129**, 12157.

Impact factor: 11.709

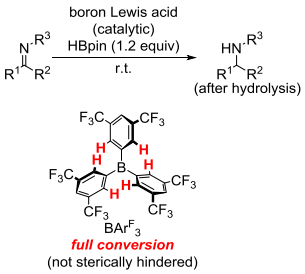
Times cited: 2

* 49. 

Lawson, J.R., Wilkins, L.C., **Melen,* R.L.** "Tris(2,4,6-trifluorophenyl)borane: An Efficient Hydroboration Catalyst", *Chem. Eur. J.*, 2017, **23**, 10997.

Impact factor: 5.771

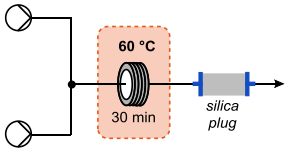
Times cited: 0

* 48. 

Yin, Q., Soltani, Y., **Melen,* R.L.,** Oestreich,* M. "$BAr^F{}_3$-Catalyzed Imine Hydroboration with Pinacolborane Not Requiring the Assistance of an Additional Lewis Base", *Organometallics*, 2017, **36**, 2381.

Impact factor: 4.186

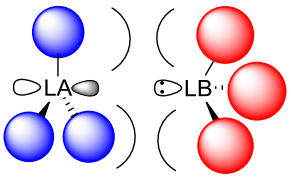
Times cited: 3

* *47.* 

Wilkins, L.C., Howard, J.H., Burger, S., Frentzel-Beyme, L., Browne,* D.L., **Melen,* R.L.** "Exploring Multistep Continuous Flow Hydrosilylation Reactions Catalyzed by Tris(pentafluorophenyl)borane", *Adv. Synth. Catal.*, 2017, **359**, 2580. Designated a **Very Important Paper**.

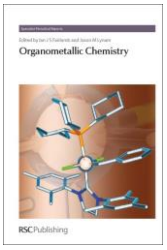
Impact factor: 6.453

Times cited: 0

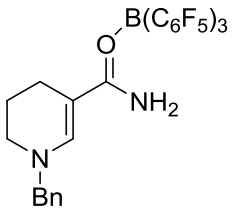
* 46. 

frustrated Lewis pairs

Wilkins, L.C., **Melen,* R.L.** "Small Molecule Activation with Frustrated Lewis Pairs", *EIBC*, DOI: 10.1002/9781119951438.eibc2520.

* 45. 

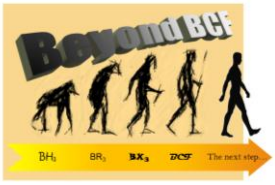
Lawson, J.R., **Melen,* R.L.** "Recent Developments and Applications of Boron Reagents", *Organometallic Chemistry*, 2017, **41**, 1-27 (***Invited book chapter***).

* 44. 

Wilkins, L.C., Santi, N., Luk, L.Y.P., **Melen,* R.L.** "Reactions of biologically inspired hydride sources with $B(C_6F_5)_3$", *Phil. Trans. R. Soc. A,* DOI: 10.1098/rsta.2017.0009 (***Invited article***).

Impact factor: 2.441

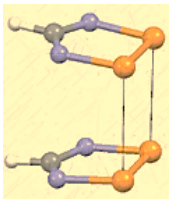
Times cited: 1

* 43. 

Lawson, J.R., **Melen,* R.L.** "Tris(pentafluorophenyl)borane and Beyond: Modern Advances in Borylation Chemistry", *Inorg. Chem.*, 2017, **56**, 8627 (***Invited Review***).

Impact factor: 4.820

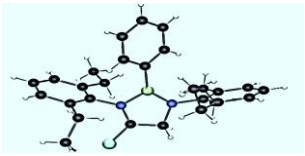
Times cited: 0

* 42. 

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

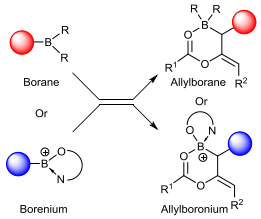
Times cited: 6

* 41. 

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

Times cited: 2

* *40.* 

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

Times cited: 3

* *39.*

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

Times cited: 3

* 38.

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

Times cited: 5

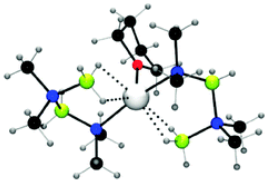
* 37.

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

Times cited: 9

* 36.

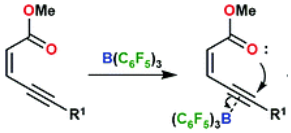


Melen,* R.L. "Dehydrocoupling Routes to Element-Element Bonds Catalysed by Main Group Compounds", *Chem. Soc. Rev.,* 2016, **45**, 775 (***invited review, back cover***).

Impact factor: 34.09

Times cited: 12

* 35.

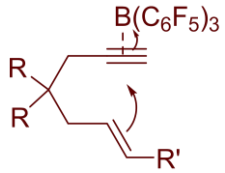


Wilkins, L.C., Hamilton, H.B., Kariuki, B.M., Hashmi, A.S.K., Hansmann, M.M., **Melen,* R.L.** "Lewis acid-base 1,2-addition reactions: Synthesis of pyrylium borates from en-ynoate precursors", *Dalton Trans*. 2016, **45**, 5929 (***invited article, special issue on main group transformations***).

Impact factor: 4.117

Times cited: 9

34.

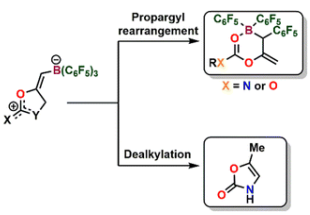


Hansmann,* M.M., **Melen, R.L.**, Rudolph, M., Rominger, F., Wadepohl, H., Stephan,* D.W., Hashmi,* A.S.K. "Cyclopropanation / Carboboration Reactions of Enynes with $B(C_6F_5)_3$", *J. Am. Chem. Soc*., 2015, **137**, 15469.

Impact factor: 13.038

Times cited: 17

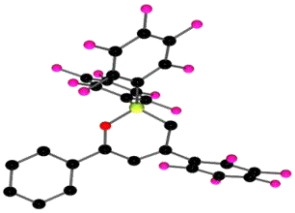
* 33.



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

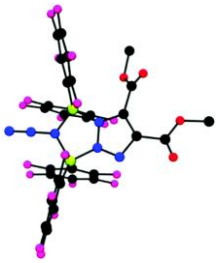
Times cited: 14

* 32. 

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

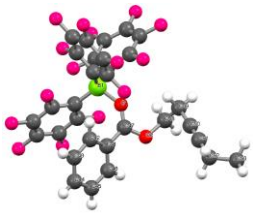
Times cited: 10

31. 

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

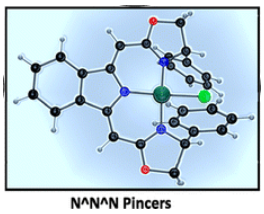
Times cited: 1

* 30. 

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***).

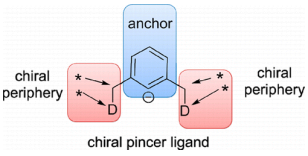
Impact factor: 2.465

Times cited: 3

* 29. 

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.

Times cited: 2

28. 

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

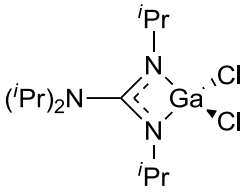
Times cited: 26

27. 

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

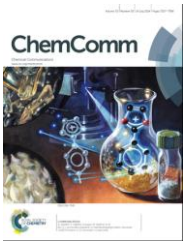
Times cited: 9

* 26. 

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

25. 

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

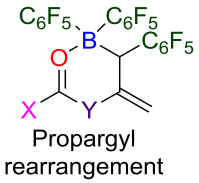
Times cited: 17

* *24.* 

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

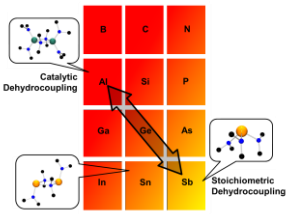
Times cited: 40

23. 

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

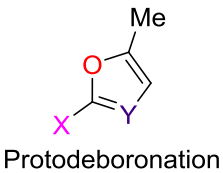
Times cited: 27

* 22. 

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: 6

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: 30

20. 

Melen, R.L., Lough, A.J., Stephan*, D.S. "Boron Azides in Staudinger Oxidations and Cycloadditions", *Dalton Trans*., 2013, **42**, 8674.

Impact factor: 4.117

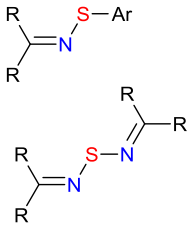
Times cited: 5

19. 

Melen, R.L.., Stephan*, D.S. “Cycloaddition Reactions Between Dicyclohexylboron Azides and Alkynes”, *Dalton. Trans*., 2013, **42**, 4795 (***hot paper***).

Impact factor: 4.117

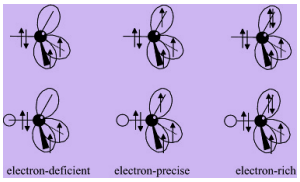
Times cited: 8

* 18. 

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

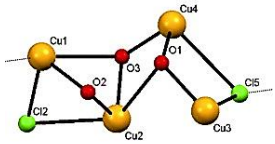
Times cited: 1

* 17. 

Melen*, R.L., Rawson*, J.M. “Structural Variations on an Electron Precise Theme”, *Coord. Chem. Rev.*, 2013, **257**, 1232.

Impact factor: 12.994

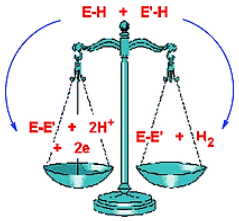
Times cited: 2

* 16. 

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

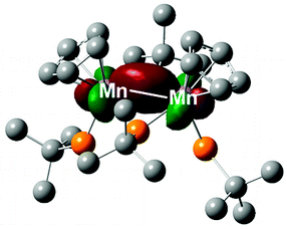
Times cited: 5

15. 

Less, R.J., **Melen, R.L.**, Wright*, D.S. “Catalytic *Versus* Stoichiometric Dehydrocoupling Using Main Group Metals”, *RSC Adv.*, 2012, **2**, 2191.

Impact factor: 3.289

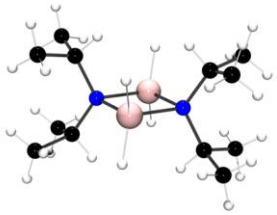
Times cited: 49

14. 

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

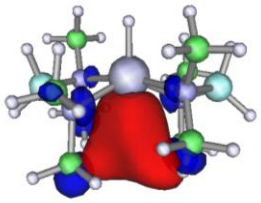
Times cited: 14

13. 

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

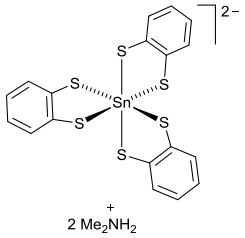
Times cited: 58

12. 

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

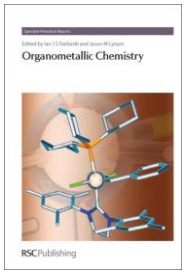
Times cited: 44

11. 

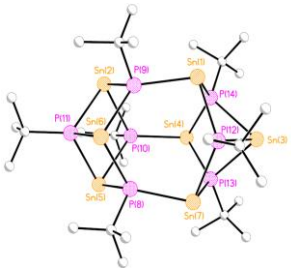
Melen, R.L., McPartlin, M., Wright*, D.S. "An unexpected dependence on the Sn(II) base; reactions of $Sn(NR_2)_2$ with aromatic dithiols", *Dalton Trans.*, 2011, **40**, 1649.

Impact factor: 4.117

Times cited: 6

10. 

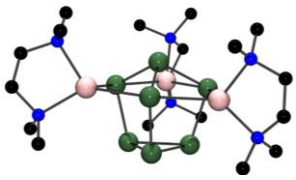
Less, R.J., **Melen, R.L.**, Wright, D.S. "Group 2 (Be-Ba) and Group 12 (Zn-Hg)", *Organomet. Chem.*, 2011, **37**, 100.

9. 

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

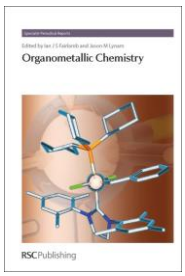
Times cited: 17

8. 

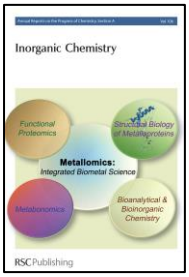
Chan, W.T.K., García, F., McPartlin, M., **Melen, R.L.**, Wright*, D.S. "Syntheses and structures of $[Me_2Si\{As(P^tBu)_3\}_2]$ and $[(CyP)_3SiMe_2]$ (Cy = cyclohexyl, C_6H_{11})", *J. Organomet. Chem.*, 2010, **695**, 1069 (***invited article***).

Impact factor: 2.173

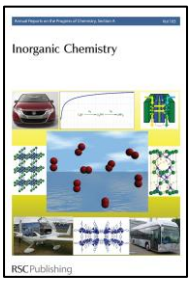
Times cited: 2

7. 

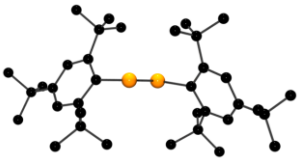
Bullock, T.H., **Melen, R.L.**, Wright, D.S. "Group 2 (Be-Ba) and Group 12 (Zn-Hg)", *Organomet. Chem.*, 2010, **36**, 168.

6. 

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.

5. 

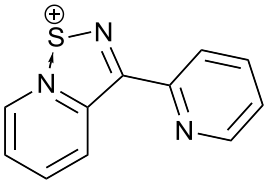
Haynes, D.A., **Melen, R.L.**, Rawson, J.M. "Oxygen, sulfur, selenium, tellurium and polonium", *Ann. Rep. Prog. Chem., Sect. A: Inorg. Chem.*, 2009, **105**, 155.

4. 

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: 37

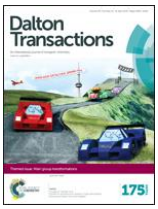
3. 

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: 11

Other articles (not peer reviewed)

* 2. 

Melen*, R. L., Stephan*, D.W., "Main group transformations", *Dalton Trans.*, 2016, **45**, 5879.

Impact factor: 4.117.

* 1. 

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.

Invited Lectures and Contributions to Scientific Meetings

My significant contributions to the field of inorganic chemistry have been reflected in a series of talks (69). Notable presentations include invited lectures at the Organometallic Gordon Research Conference (2018), Canadian Society for Chemistry Conference (2014, 2015, 2017, 2018), Dalton Meeting (2014, award winner) and the Clara Immerwahr Award Lecture (2016) as well as invited departmental seminars in the UK, Canada and Germany.

Oral communications:

69. Melen, R. L., "The Softer Side of Boron: Taming Hard Lewis Acids for Soft-Centred Chemistry", **Invited lecture**, Organometallics Gordon Research Conference, 8th-13th June 2018, Newport, RI, USA.

68. Melen, R. L., "The Fifth Element: Modern Advances in Borylation Chemistry and Boron Catalysis", **Invited lecture**, Early Career Investigators Symposium, 101st Canadian Chemistry Conference and Exhibition, June 2018, Edmonton, Canada.

67. Melen, R. L., "The Fifth Element: Modern Advances in Borylation Chemistry and Boron Catalysis", **Invited lecture**, April 30th – May 1st 2018, 3rd Japan/UK joint symposium in coordination chemistry, University of St. Andrews, UK.

66. Melen, R. L., "The Fifth Element: Modern Advances in Borylation Chemistry and Boron Catalysis", **Invited lecture**, 23rd January 2018, University of Birmingham, UK.

65. Melen, R. L., "BCF and Beyond: Modern Advances in Borylation Chemistry and Boron Catalysis", **Invited lecture**, 12th January 2018, Queen Mary University of London, UK.

64. Melen, R. L., "BCF and Beyond: Modern Advances in Borylation Chemistry and Boron Catalysis", **Invited lecture**, 29th November 2017, University College London, UK.

63. Melen, R. L., High Achievers Dinner, Keynote speaker, Trent College, UK.

62. Melen, R. L., "Main Group Catalysis", Dalton Younger Members Event, September 2017, **Invited Plenary lecture**, Bath, UK.

61. Melen, R. L., "BCF and Beyond: Modern Advances in Borylation Chemistry and Boron Catalysis", **Invited lecture**, 15th August 2017, University of Bern, Switzerland.

60. Melen, R. L., "Catalytic Cyclization Reactions Using Lewis Acidic Boranes", Main Group Transformations and Catalysis Symposium,100th Canadian Chemistry Conference and Exhibition, June 2017, **Invited lecture**, Toronto, Canada.

59. Melen, R. L., "BCF and Beyond: Modern Advances in Borylation Chemistry", Boron in Modern Organic Synthesis and Catalysis Symposium, 100th Canadian Chemistry Conference and Exhibition, June 2017, **Invited lecture**, Toronto, Canada.

58. Melen, R. L., "BCF and Beyond: Modern Advances in Borylation Reactions", **Invited lecture**, 12th April 2017, University of East Anglia, UK.

57. Melen, R. L., "Tris(pentafluorophenyl)borane and Beyond: Modern Advances in Borylation Reactions", **Invited lecture**, 21st March 2017, RWTH Aachen University, Germany.

56. Melen, R. L., "Modern Advances in Borylation Reactions", **Invited lecture**, 21st February 2017, Bath University, UK.

55. Melen, R. L., "Modern Advances in Borylation Reactions", **Invited lecture**, McCamley Lecture, 1st February 2017, University of York, UK.

54. Melen, R. L., “BCF and Beyond: Modern Advances in Borylation Reactions”, **Invited lecture**, 24th January 2017, York University, Toronto, Canada.

53. Melen, R. L., “A decade of Frustrated Lewis Pairs”, SCI Review lecture, **Invited lecture**, 1st December 2016, London.

52. Melen, R. L. and Bowen, J., “Staff Perceptions of the Research Teaching Nexus: and Exploratory Study”, Cardiff University, Postgraduate Certificate in University Teaching and Learning Symposium, 21st September 2016.

51. Melen, R. L., “Boron Lewis acids in Synthesis and Catalysis”, University of Oxford, UK, **Invited lecture**, 11th October 2016.

50. Melen, R. L., “Boron Lewis acids in Synthesis and Catalysis”, TU Berlin, Germany, **Invited lecture**, 25th August 2016.

49. Melen, R. L., “Boron Lewis acids in Synthesis and Catalysis”, Bielefeld, Germany, **Invited lecture**, 21st July 2016.

48. Melen, R. L., “Boron Lewis acids in Synthesis and Catalysis”, Boron in the Americas (BORAM), 25th-28th June 2016, Queen’s University, Kingston, Canada.

47. Melen, R. L., “Boron Lewis acids in Synthesis and Catalysis”, Symposium, University of Toronto, 24th June 2016, Canada.

46. Melen, R. L., “Reactivity of Perfluoroaryl Boranes with Bonds: Cyclization, Carboboration and Rearrangement”, 99th Canadian Chemistry Conference and Exhibition, Advances in Main Group Chemistry Symposium, 5th-9th June 2016, Halifax, Canada.

45. Melen, R. L., “Novel Pathways to Organoboron Compounds using Boron Lewis Acids”, 99th Canadian Chemistry Conference and Exhibition, General Organic Symposium, 5th-9th June 2016, Halifax, Canada.

44. Melen, R. L., “Cyclisation, Carboboration and Rearrangement Reactions using Lewis Acidic Boranes and Borocations”, **invited lecture**, 8th March 2016, Humboldt University Berlin.

43. Melen, R. L., "Synthesis and Catalysis using Main Group Elements", **Clara Immerwahr Award lecture**, 12th February 2016, Berlin, Germany.

42. Melen, R. L., "Activation of π-Bonds using Lewis Acidic Boranes", **invited lecture**, 3rd February 2016, University of Leicester, UK.

41. Melen, R. L., "Activation of π-Bonds using Lewis Acidic Boranes", **invited lecture**, 3rd February 2016, Belfast University, UK.

40. Melen, R. L., “Reactivity of perfluoroaryl boranes with π-bonds: Carboboration and Rearrangement”, 13th January 2016, University of Southampton, RSC Organic Division South-West Regional Meeting.

39. Melen, R. L., “Novel routes to boron allylation reagents derived from propargyl esters”, The International Chemical Congress of Pacific Basin Societies, Lewis Acid/Base Pair Chemistry in Molecular Transformations, Catalysis and Energy Storage symposium, 15th-20th December 2015, Honolulu, Hawaii, USA.

38. Melen, R. L., “Activation of alkynes with $B(C_6F_5)_3$: Intramolecular cyclization reactions and rearrangements”, The International Chemical Congress of Pacific Basin Societies, Lewis

Acid/Base Pair Chemistry in Molecular Transformations, Catalysis and Energy Storage symposium, 15th-20th December 2015, Honolulu, Hawaii, USA.

37. Melen, R. L., "On the Reactivity of $B(C_6F_5)_3$ with π-bonds: Cyclisation, Carboboration and Rearrangement Reactions", **invited lecture**, 25th November 2015, Goethe-Universität Frankfurt am Main, Germany.

36. Melen, R. L., "On the Reactivity of $B(C_6F_5)_3$ with π-bonds: Cyclisation, Carboboration and Rearrangement Reactions", invited lecture, 24th November 2015, Heidelberg, Germany.

35. Melen, R. L., "On the Reactivity of $B(C_6F_5)_3$ with π-bonds: Cyclisation, Carboboration and Rearrangement Reactions", **invited lecture**, 23rd November 2015, KIT, Karlsruhe, Germany.

34. Melen, R. L., "Applications of Boron Lewis acids in Synthesis and Catalysis", Gregynog Synthesis Meeting, 9th-11th September 2015, Newtown, Powys, Wales, UK.

33. Melen, R. L., "Activation of π-Bonds Towards Cyclization Reactions using Lewis Acidic Boranes", IRIS 14 meeting, 26th-31st July 2015, Regensburg, Germany.

32. Melen, R. L., "Recent Developments in the Activation of π-bonds by Lewis Acidic Boranes", **invited lecture**, 26th June 2015, Brock University, St. Catharines, Canada.

31. Melen, R. L., "Recent Developments in the Activation of π-bonds by Lewis Acidic Boranes", **invited lecture**, 25th June 2015, University of Toronto, Toronto, Canada.

30. Melen, R. L., "Recent Developments in the Activation of π-bonds by Lewis Acidic Boranes", **invited lecture**, 19th June 2015, McGill University, Montreal, Canada.

29. Melen, R. L., "Activation of Alkynes by Boranes: Novel Routes to Boron Allylation Reagents", 98th Canadian Chemistry Conference and Exhibition, 13th -17th June 2015, Ottawa, Canada.

28. Melen, R. L., "Recent Developments in the Activation of π-bonds by Lewis Acidic Boranes", 98th Canadian Chemistry Conference and Exhibition, RSC-UK Symposium (**invited lecture, RSC Bursary**), 13th-17th June 2015, Ottawa, Canada.

27. Melen, R. L., "Main Group Catalysis", EPSRC Dial-a-Molecule and Beyond the Molecule: Directed Assembly Grand Challenge Network Event, 19th-20th May 2015, Leeds, UK.

26. Melen, R. L., "Activation of π-Bonds using Lewis Acidic Boranes", **invited lecture**, Cardiff Chemistry Conference, 11th-12th May 2015, Cardiff University, UK.

25. Melen, R. L., "Activation of π-Bonds Towards Cyclisation Reactions using Lewis Acidic Boranes", Southern Dalton Meeting, 20th-21st April 2015, University of Sussex, UK.

24. Melen, R. L., "Cyclisation Reactions Using $B(C_6F_5)_3$: Catalytic Synthesis of Oxazoles", Dial-a-Molecule Meeting: Catalytic Sustainability in the Future, 13th February 2015, Manchester, UK (flash presentation).

23. Melen, R. L., "Activation of Alkynes with $B(C_6F_5)_3$: Intramolecular cyclisation reactions and rearrangements", MICRA conference, 10th-12th September 2014, Huddersfield, UK.

22. Melen, R. L., "Insights into the Reactivity of Boron Azides: Cycloaddition Reactions and Staudinger Oxidations", IMEBORON conference, 24th-28th August 2014, Prague, Czech Republic.

21. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Applications in Organic Synthesis”, IMEBORON conference, 24th-28th August 2014, Prague, Czech Republic.

20. Melen, R. L., “Intramolecular Cyclisation Reactions and Rearrangements using $B(C_6F_5)_3$”, lecture, 23rd June 2014, University of Tübingen, Germany.

19. Melen, R. L., “Synthesis and Catalysis using Abundant Main Group Metals”, **award lecture**, 21st-26th June 2014, Euroscience Open Forum (ESOF), Copenhagen, Denmark.

18. Melen, R. L., “Applications of Pentafluorophenyl Boron Reagents in Synthesis”, lecture, 10th June 2014, University of Guelph, Canada.

17. Melen, R. L., “Applications of Pentafluorophenyl Boron Reagents in Synthesis”, **invited lecture**, 11th June 2014, University of Windsor, Canada.

16. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Intramolecular cyclisation reactions and rearrangements” 97th Canadian Chemistry Conference and Exhibition, **invited lecture** (Main Group Symposium), 1st-5th June 2014, Vancouver, Canada.

15. Melen, R. L., “Catalysis in the Main Group”, **invited lecture**, 16th May 2014, University of St. Andrews, UK.

14. Melen, R. L., “Synthesis and Catalysis Using Main Group Elements”, 6th May 2014, **invited lecture**, University of Cardiff, UK.

13. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Intramolecular Cyclisation Reactions and Rearrangements”, **Dalton Young Researcher Award Lecture**, 24th April 2014, University of Durham, UK.

12. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Intramolecular Cyclisation Reactions and Rearrangements”, **Dalton Young Researcher Award Lecture**, 23rd April 2014, University of Strathclyde, UK.

11. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Intramolecular Cyclisation Reactions and Rearrangements”, **Dalton Young Researcher Award Lecture**, 21st April 2014, University of Bristol, UK.

10. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Intramolecular Cyclisation Reactions and Rearrangements”, Dalton Division Joint Interest Groups Meeting, **Dalton Young Researcher Award Lecture**, invited speaker, 15th-17th April 2014, University of Warwick, UK.

9. Melen, R. L., Gade, L. H., “Enantioselective Catalysis with Chiral Pincer Complexes of the Alkaline Earth Metals”, Network Meeting of the Alexander von Humboldt Foundation, April 2014, Berlin, Germany.

8. Melen, R. L., “Applications of Pentafluorophenyl Boron Reagents in Synthesis”, **invited lecture**, 12th February 2014, University of Heidelberg, Germany.

7. Melen, R. L., “Breaking the Wall of Limited Resources”, **A.T. Kearney Scholarship**, Falling Walls Conference, 8th November 2013, Berlin, Germany.

6. Melen, R. L., “Insights into the Reactivity of Boron Azides: Cycloaddition Reactions and Staudinger Oxidations”, Annual Meeting of the RSC Main Group Chemistry Interest Group, 27th September 2013, University of Oxford, UK.

5. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Applications in Organic Synthesis”, **invited lecture**, 29th August 2013, University of Cambridge, UK.

4. Melen, R. L., “Activation of Alkynes with $B(C_6F_5)_3$: Applications in Organic Synthesis”, **invited lecture**, 22nd August 2013, University of Manchester, UK.

3. Melen, R. L., 2013 GCI Future Leaders in Green Chemistry Interactive Workshop and Challenge, May 9th-10th 2013, Toronto, Canada (**best talk/proposal prize**).

2. Melen, R. L., “Main Group-Catalysed Dehydrocoupling of Amine Boranes”, BP Symposium, 2010, University of Cambridge, UK.

1. Melen, R. L., “Coupling of Primary Phosphines using Main Group Reagents” Inorganic Seminar: Certificate of Post-Graduate Study, 2008, University of Cambridge, UK.

Poster presentations:

7. Yin, Q., Soltani, Y., **Melen,* R. L.**, Oestreich,* M. “BAr^F_3-Catalyzed Imine Hydroboration with Pinacolborane Not Requiring the Assistance of an Additional Lewis Base”, UniCat’s and BIG-NSE’s 10th anniversary symposium, 12th-14th July 2017, Berlin, Germany.

6. **Melen, R. L.**, Stephan, D. W., “Insights into the Reactivity of Boron Azides: Click Chemistry and Staudinger Oxidations”, 96th Canadian Chemistry Conference and Exhibition, 26th-30th May 2013, Quebec City, Canada.

5. **Melen, R. L.**, Stephan, D. W., “Click Chemistry of Boron and Phosphorus Azides: Routes to Novel Frustrated Lewis Pairs”, IDW: Inorganic Discussion Weekend, November 2012, University of Ottawa, Canada.

4. **Melen, R. L.**, Cowley, H. J., Hansmann, M. M., Wright, D. S.,“Main Group-Catalysed Dehydrocoupling of Amine Boranes”, RSC Symposium, 2011, University of Cambridge, UK (**best poster prize**).

3. **Melen, R. L.**, Cowley, H. J., Hansmann, M. M., Wright, D. S.,“Main Group-Catalysed Dehydrocoupling of Amine Boranes”, EICC-1: EuCheMS Inorganic chemistry conference, 2011, University of Manchester, UK.

2. **Melen, R. L.**, Wright, D. S.,“Tin(II) Phospanediides: Towards New Synthetic Reagents”, RSC Symposium, 2009, University of Cambridge, UK.

1. **Melen, R. L.**, Wright, D. S.,“Tin(II) Phospanediides: Towards New Synthetic Reagents”, BP Symposium, 2009, University of Cambridge, UK.

Other conferences attended:

7. Carbon Dioxide Utilisation: Faraday Discussion, 7th-9th September 2015, Sheffield, UK.

6. CEMWOQ-2, 2nd Crystal Engineering and Emerging Materials Workshop of Ontario and Quebec, 11th-12th June 2015, University of Guelph, Canada.

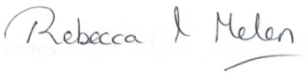
5. Selected to attend the 42nd Symposium for Research Award Winners of the Alexander von Humboldt Foundation, March 2014, Bamberg, Germany.

4. Heidelberg Forum for Molecular Catalysis, June 2013, University of Heidelberg, Germany.

3. Selected to attend the 63rd Lindau Nobel Laureate Meeting in Chemistry, July 2013, Lindau, Germany.

2. AGICHEM: Anglo-German inorganic chemistry conference, September 2011, University of Heidelberg, Germany.

1. Pacifichem, December 2010, Honolulu, Hawaii, USA.



Dr Rebecca L. Melen