

-Tony David James-

Personal Details:

Date of Birth	7 October 1964	Place of Birth:	Broseley, Shropshire (UK).
Nationality:	British	Marital Status:	Married
Home Address:	18 Colliers Rise Radstock Bath BA3 3AU, UK Tel: +44 (0) 1761 420766	Work Address:	Department of Chemistry University of Bath Bath BA2 7AY, UK Tel: +44 (0) 1225 38 3810 Fax: +44 (0) 1225 38 6231 Email: T.D.James@Bath.ac.uk web: www.chemosensors.com

Current Position:

Reader at the University of Bath Since 2007

Previous Positions:

Senior Lecturer at the University of Bath	2005-2007
Lecturer at the University of Bath	2000-2005
Royal Society Research Fellow at the University of Bath	2000-2003
Royal Society Research Fellow at the University of Birmingham	1995-2000
Research Fellow for the Research Development Corporation of Japan (JRDC)	1991-1995

Educational Institutions Attended:

University of East Anglia (UK)	1983-1984
University of Massachusetts (USA)	1984-1985
University of East Anglia (UK)	1985-1986
University of Victoria (Canada)	1986-1991

Degrees Awarded:

Ph.D	University of Victoria (Canada)	1991
Dissertation Title:	<i>Structure-Activity Studies of Ion Channel Mimics</i>	
B.Sc. (First Class, Honours)	University of East Anglia (UK)	1986

Professional Memberships:

Royal Society of Chemistry, Chartered Chemist and Full Membership (CChem, MRSC).	Since September 1997
Member of the American Chemical Society	Since January 1999

Honours and Awards:

Prize for best performance in the Preliminary Assessment	1984
Prize for distinguished performance in the Final Assessment	1986
Fisons prize for best performance in Advanced Organic Chemistry	1986
Fisons prize for best performance in Advanced Physical Organic Chemistry	1986
University of Victoria Fellowship	1986-1990
Lewis J. Clarke Memorial Fellowship	1989-1990
Royal Society Research Fellow	1995-2003
Visiting Professor at the University of Tsukuba (University of Tsukuba)	2005
Visiting Professor at the University of Osaka (21 st Century COE Program: Creation of Integrated Eco Chemistry)	2005
Visiting Professor at Kyushu University (JSPS)	2008
Visiting Professor at East China University of Science and Technology (ECUST)	2010

Current research interests include: -Supramolecular chemistry - Sensor design - Chiral recognition - Saccharide recognition - Anion recognition - Synthetic organic chemistry - Combinatorial chemistry - Asymmetric synthesis

TDJ has wide-ranging experience within the field of supramolecular chemistry having published over 100 publications, including one book, 6 book chapters and 109 papers in international peer reviewed journals. He is also the named inventor on 16 international patents. He has delivered 96 invited lectures within the UK and internationally. Citation statistics indicate that one of his publications has been cited over 400 times, four over 200 times, nine over 100, and 19 over 50, with a total of >4,000 citations from 112 papers at a frequency of >37 citations per paper. He also has an h-index of 32.

Publications

Books

- [1] '*Boronic acids in saccharide recognition*' T. D. James, M. D. Phillips and S. Shinkai, Royal Society of Chemistry, **2006**. ISBN-13 978 0 85404 537 2

Chapters in Books

- [1] '*Carbohydrate receptors*' A. P. Davis and T. D. James in *Functional Synthetic Receptors*, T. Schrader and A. Hamilton, (eds.), Wiley-VCH, **2005**, 45-110.
- [2] '*Boronic acid based receptors and sensors for saccharides*' T. D. James in *Boronic acids in Organic Synthesis and Chemical Biology*, D. G. Hall. (ed.), Wiley-VCH, **2005**, 441-480.
- [3] '*Fluorescent saccharide sensors*' T. D. James and S. Shinkai in *Topics in Fluorescence Spectroscopy*, (Vol 10), *Advanced Concepts in Fluorescence Spectroscopy: Macromolecular Sensing*, C. D. Geddes and J. R. Lakowicz. (eds.), Springer, **2005**, 41-67.
- [4] '*Fluorescent TICT sensors for saccharides*' L. I. Bosch and T. D. James in *Topics in Fluorescence Spectroscopy*, (Vol 11), *Glucose Sensing*, C. D. Geddes and J. R. Lakowicz. (eds.), Springer, **2006**, 344-350.
- [5] '*Molecular Recognition Using Boronic Acids*' T. D. James in *Chemistry, Physics, and Biology in Macromolecular Science*, Takahiro Sato (ed.), Osaka University Press, **2008**.
- [6] '*Boronic acid based modular fluorescent saccharide sensors*' in *Annual Reviews in Fluorescence 2007*, C. D. Geddes and J. R. Lakowicz. (eds.), Springer, **2009**, .103-118.

Articles in Journals

- [1] '*Alkylation of tricarbonyliron complexes by trimethylsilyl cyanide: synthetic and kinetic studies*' R. P. Alexander, T. D. James, and G. R. Stephenson, *J. Chem. Soc., Dalton Trans.* **1987**, 2013-2016.
- [2] '*Biomimetic ion transport: a functional model of a unimolecular ion channel*' V. E. Carmichael, P. J. Dutton, T. M. Fyles, T. D. James, J. A. Swan, and M. Zojaji, *J. Am. Chem. Soc.* **1989**, *111*, 767-769.
- [3] '*Biomimetic ion transport: synthesis and activity of an amphotericin mimic*' T. M. Fyles, K. C. Kaye, T. D. James, and D. W. M. Smiley, *Tetrahedron Lett.* **1990**, *31*(9), 1233-1236.
- [4] '*Biomimetic ion transport: pores and channels in vesicle membranes*' V. E. Carmichael, P. J. Dutton, T. M. Fyles, T. D. James, C. McKim, J. A. Swan, and M. Zojaji, *Inclusion Phenomena and molecular Recognition*, Edited by J. Atwood, Plenum Press, New York, **1990**, 145-150.
- [5] '*Biomimetic ion transport: on the mechanism of ion transport by an artificial ion channel mimic*' T. M. Fyles, T. D. James, K. C. Kaye, *Can. J. Chem.*, **1990**, *68*, 976-978.
- [6] '*Design and synthesis of artificial ion channels*' G. G. Cross, T. M. Fyles, T. D. James, and M. Zojaji, *Synlett.* **1993**, 449-460.
- [7] '*Activities and modes of action of artificial ion channels*' T. M. Fyles, T. D. James, and K. C. Kaye, *J. Am. Chem. Soc.* **1993**, *115*, 12315-12321.
- [8] '*Assembly of ion channel mimics. from a modular construction set*' T. M. Fyles, T. D. James, A. Pryhitka, and M. Zojaji, *J. Org. Chem.* **1993**, *58*, 7456-7468.
- [9] '*Determination of the absolute configuration of monosaccharides by a colour change in a chiral cholesteric liquid crystal system*' T. D. James, T. Harada, and S. Shinkai, *J. Chem. Soc., Chem. Commun.* **1993**, 857-860 and 1176 (corrigendum).
- [10] '*Chiral discrimination of monosaccharides through gel formation*' T. D. James, K. Murata, T. Harada, K. Ueda, and S. Shinkai, *Chem. Lett.*, **1994**, 273-276.
- [11] '*Chiral discrimination of monosaccharides by monolayers of a steroidal boronic acid*' R. Ludwig, T. Harada, K. Ueda, T. D. James, and S. Shinkai, *J. Chem. Soc., Perkin Trans. 2* **1994**, *4*, 697-702.
- [12] '*The allosteric interaction of metal ions with saccharides in a crowned diboronic acid*' G. Deng, T. D. James, and S. Shinkai, *J. Am. Chem. Soc.* **1994**, *116*, 4567-4572.
- [13] '*Novel photoinduced electron transfer sensor for saccharides based on the Interaction of Boronic acid and Amine*' T. D. James, K. R. A. S. Sandanayake, and S. Shinkai, *J. Chem. Soc., Chem. Commun.* **1994**, 477-478.
- [14] '*The design of a glucose selective molecular fluorescence sensor*' T. D. James, K. R. A. S. Sandanayake, and S. Shinkai, *Angew. Chem., Int. Ed. Engl.* **1994**, *33*, 2207-2209.
- [15] '*Cholesterol as a versatile platform for chiral recognition*' T. D. James, H. Kawabata, R. Ludwig, K. Murata, and S. Shinkai, *Tetrahedron* **1995**, *51*(2), 555-566.
- [16] '*Molecular fluorescence sensor for saccharides based on amino coumarin*' K. R. A. S. Sandanayake, S. Imazu, T. D. James, M. Mikami, and S. Shinkai, *Chem. Lett.* **1995**, 139-140.
- [17] '*Two dimensional photoinduced electron transfer (PET) fluorescence sensor for saccharides*' K. R. A. S. Sandanayake, T. D. James, and S. Shinkai, *Chem. Lett.* **1995**, 503-504.
- [18] '*A diboronic acid "glucose-cleft" and a biscrown ether "metal-sandwich" are allosterically coupled*' T. D. James and S. Shinkai, *J. Chem. Soc., Chem. Commun.* **1995**, 1483-1485.
- [19] '*A sweet toothed saccharide (PET) sensor*' P. Linnane, T. D. James, S. Imazu, and S. Shinkai, *Tetrahedron Lett.* **1995**, *36*, 8833-8834.

- [20] *'The synthesis and properties of a calixarene-based 'sugar bowl''* P. Linnane, **T. D. James**, and S. Shinkai, *J. Chem. Soc., Chem. Commun.* **1995**, 1997-1998.
- [21] *'Novel saccharide photoinduced electron transfer sensors based on the interaction of boronic acid and amine'* **T. D. James**, K. R. A. S. Sandanayake, R. Iguchi, and S. Shinkai, *J. Am. Chem. Soc.* **1995**, 117, 8982-8987.
- [22] *'Chiral discrimination of monosaccharides using a fluorescent molecular sensor'* **T. D. James**, K. R. A. S. Sandanayake, and S. Shinkai, *Nature* **1995**, 374, 345-347.
- [23] *'Recognition of sugars and related compounds by "reading-out"-type interfaces'* **T. D. James**, K. R. A. S. Sandanayake, S. Shinkai, *Supramolecular Chemistry* **1995**, 6, 141-157.
- [24] *'Fluorescent saccharide receptors: A sweet solution to the design, assembly and evaluation of boronic acid derived PET sensors'* **T. D. James**, P. Linnane, and S. Shinkai, *Chem. Commun.* **1996**, 281-288.
- [25] *'Screening of arylboronic acids to search for a strong inhibitor of γ -glutamyl transpeptidase (γ -GTP)'* H. Suenaga, K. Nakashima, M. Mikami, H. Yamamoto, **T. D. James**, K. R. A. S. Sandanayake, and S. Shinkai, *Recl. Trav. Chim. Pays-Bas.* **1996**, 115, 44-48.
- [26] *'A saccharide "sponge": synthesis and properties of a dendritic boronic acid'* **T. D. James**, H. Shinmori, M. Takeuchi, and S. Shinkai, *Chem. Commun.* **1996**, 705-706.
- [27] *'Boronic acid-based molecular receptors'* **T. D. James**, K. R. A. S. Sandanayake, and S. Shinkai, *Angew. Chem., Int. Ed. Engl.* **1996**, 35, 1910-1922.
- [28] *'Molecular design of sugar recognition systems by sugar-diboronic acid macrocyclization'* K. R. A. S. Sandanayake, **T. D. James**, and S. Shinkai, *Pure. Appl. Chem.* **1996**, 66, 1207-1212.
- [29] *'Novel fluorescence sensors for "small" saccharides'* **T. D. James**, H. Shinmori, and S. Shinkai, *Chem. Commun.* **1997**, 71-72.
- [30] *'Selective D-glucosamine hydrochloride fluorescence signalling based on ammonium cation and diol recognition'* C. R. Cooper, and **T. D. James**, *Chem. Commun.* **1997**, 1419-1420.
- [31] *'Selective fluorescence detection of fluoride using boronic acids'* C. R. Cooper, N. Spencer, and **T. D. James**, *Chem. Commun.* **1998**, 1365-1366.
- [32] *'Selective fluorescence signalling of saccharides in their furanose form'* C. R. Cooper, and **T. D. James**, *Chem. Lett.* **1998**, 883-884..
- [33] *'Saccharide accelerated hydrolysis of boronic acid imines'* J. H. Hartley, and **T. D. James**, *Tetrahedron Lett.* **1999**, 40, 2597-2600.
- [34] *'Fluorescent sensors based on boronic acids'* C. R. Cooper, and **T. D. James**, *Proc. SPIE* **1999**, 3602, 194-201.
- [35] *'Exploitation of a novel 'on-off' photoinduced electron-transfer (PET) sensor against conventional 'off-on' PET sensors'* H. Kijima, M. Takeuchi, A. Robertson, S. Shinkai, C. R. Cooper, and **T. D. James**, *Chem. Commun.* **1999**, 2011-2012.
- [36] *'A molecular colour sensor for monosaccharides'* C. J. Ward, P. Patel, P. R. Ashton, and **T. D. James**, *Chem. Commun.* **2000**, 229-230.
- [37] *'Synthesis and evaluation of D-glucosamine selective fluorescent sensors'* C. R. Cooper, and **T. D. James**, *J. Chem. Soc., Perkin Trans. 1* **2000**, 963-969.
- [38] *'Synthetic receptors'* J. H. Hartley, **T. D. James**, and C. J. Ward, *J. Chem. Soc., Perkin Trans. 1* **2000**, 3155-3184.
- [39] *'Tailored' polymers for supported synthesis using boronic acids'* S. Arimori, J. H. Hartley, M. L. Bell, C. S. Oh, and **T. D. James**, *Tetrahedron Lett.* **2000**, 10291-10294.
- [40] *'A molecular colour sensor for fluoride'* C. J. Ward, P. Patel, and **T. D. James**, *Chem. Lett.* **2001**, 406-407.
- [41] *'Substituent and solvent effects on the reactions of organoboronic acids with fluoride'* A. Yuchi, A. Tatebe, S. Kani, and **T. D. James**, *Bull. Chem. Soc. Jpn.* **2001**, 74, 509-510.
- [42] *'Fluorescent internal charge transfer (ICT) saccharide sensor'* S. Arimori, L. I. Bosch, C. J. Ward, and **T. D. James**, *Tetrahedron Lett.* **2001**, 4553-4555.
- [43] *'Efficient anion binding to cerium(IV) bis(porphyrinate) double decker utilizing positive homotropic allostereism'* M. Yamamoto, A. Sugasaki, M. Ikeda, M. Takeuchi, K. Frimat, **T. D. James**, and Seiji Shinkai, *Chem Lett.* **2001**, 520-521.
- [44] *'Modular fluorescence sensors for saccharides'* S. Arimori, M. L. Bell, C. S. Oh, K. A. Frimat and **T. D. James**, *Chem Commun*, **2001**, 1836-1837.
- [45] *'The first fluorescent sensor for boronic and boric acids with sensitivity at sub-micromolar concentrations – a cautionary tale'* S. Arimori, C. J. Ward and **T. D. James**, *Chem Commun*, **2001**, 2018-2019.
- [46] *'Molecular recognition events controllable by photochemical triggers or readable by photochemical outputs'* S. Shinkai and T. D. James, *Optical Sensors and Switches*, Edited by V. Ramamurthy and K. S. Schanze, Marcel Dekker Inc, New York, **2001**, 429-455.
- [47] *'A D-glucose selective fluorescent assay'* S. Arimori, C. J. Ward and **T. D. James**, *Tetrahedron Lett*, **2002**, 303-305.
- [48] *'A competition assay for diols using 9-(N,N-diethanolaminomethyl)anthracene and phenylboronic acid'* S. Arimori and **T. D. James**, *Tetrahedron Lett*, **2002**, 507-509.
- [49] *'Artificial receptors as chemosensors for carbohydrates'* T. D. James and S. Shinkai, *Top. Curr. Chem.*, **2002**, 218, 159-200.
- [50] *'Molecular colour sensors for monosaccharides'* C. J. Ward, P. Patel, and **T. D. James**, *Org Lett*, **2002**, 477-479
- [51] *'Boronic acid appended azo dyes – colour sensors for saccharides'* C. J. Ward, P. Patel, and **T. D. James**, *J. Chem. Soc., Perkin Trans. 1*, **2002**, 462-470
- [52] *'D-Glucose selective fluorescent internal charge transfer (ICT) saccharide sensor'* *Tetrahedron Lett*, **2002**, 911-913.

- [53] '**Modular fluorescence sensors for saccharides**' S. Arimori, M. L. Bell, C. S. Oh, K. A. Frimat and **T. D. James**, *J. Chem. Soc., Perkin Trans. 1*, **2002**, 803-808.
- [54] '**Saccharide accelerated hydrolysis of boronic acid imines**' J. H. Hartley, M. D. Phillips, and **T. D. James**, *New J. Chem*, **2002**, 26, 1228-1237.
- [55] '**A modular electrochemical sensor for saccharides**' S. Arimori, S. Ushiroda, L. M. Peter, A. T. A. Jenkins and **T. D. James**, *Chem Commun*, **2002**, 2368-2369.
- [56] '**A modular fluorescence intramolecular energy transfer saccharide sensor**' S. Arimori, M. L. Bell, C. S. Oh, and **T. D. James**, *Org. Lett*, **2002**, 4249-4251.
- [57] '**Tuning saccharide selectivity in modular fluorescent sensors**' S. Arimori, G. A. Consiglio, M. D. Phillips, and **T. D. James**, *Tetrahedron Lett*, **2003**, 4789-4792.
- [58] '**Non-linear effects operate and dynamic ligand exchange occurs when chiral BINOL-boron lewis acids are used for asymmetric catalysis**' J. P. Cros, Y. Perez-Fuertes, M. J. Thatcher, S. Arimori, S. D. Bull, and **T. D. James**, *Tetrahedron: Asymmetry*, **2003**, 14, 1965-1968.
- [59] '**A practical synthesis of enantiopure (S)-4-(4-hydroxybenzyl)-oxazolidin-2-one**' R. Green, P. J. M. Taylor, S. D. Bull, **T. D. James**, M. F. Mahon, and A. T. Merritt, *Tetrahedron: Asymmetry*, **2003**, 14, 2619-2623.
- [60] '**Probing disaccharide selectivity in modular fluorescent sensors**' S. Arimori, M. D. Phillips, **T. D. James**, *Tetrahedron: Lett*, **2004**, 1539-1542.
- [61] '**The B-N bond controls the balance between locally excited (LE) and twisted internal charge transfer (TICT) states observed for aniline based fluorescent saccharide sensors**' L. I. Bosch, and **T. D. James**, *Tetrahedron Lett*, **2004**, 2859-2862.
- [62] '**Chiral BINOL-bisboronic acid as fluorescence sensor for sugar acids**' J. Zhao, T. M. Fyles, and **T. D. James**, *Angew. Chem., Int. Ed.*, **2004**, 43, 3461-3464.
- [63] '**Synthesis and structural characterisation of the first bis(bora)calixarene: a selective, bidentate, fluorescent fluoride sensor**' S. Arimori, M. G. Davidson, T. M. Fyles, T. G. Hibbert, **T. D. James**, and G. I. Kociok-Koehn, *Chem Commun*, **2004**, 1640-1641.
- [64] '**Boronic acid based modular fluorescent sensors for glucose**' M. D. Phillips and **T. D. James**, *Journal of Fluorescence*, **2004**, 14, 549-559.
- [65] '**Binary and ternary phenylboronic acid complexes with saccharides and Lewis bases**' L. I. Bosch, T. M. Fyles, and **T. D. James**, *Tetrahedron*, **2004**, 60, 11175-11190.
- [66] '**An enantioselective fluorescent sensor for sugar acids**' J. Zhao, M. G. Davidson, M. F. Mahon, G. Kociok-Köhn, and **T. D. James**, *J. Am. Chem. Soc.* **2004**, 126(49), 16179-16186.
- [67] '**A ditopic fluorescent sensor for potassium fluoride**' S. J. M. Koskela, T. M. Fyles and **T. D. James**, *Chem Commun*, **2005**, 945-947
- [68] '**Fluorescence quenching in a dual fluorophore boronic acid receptor enhances the chiral discrimination of the receptor for tartaric acid**' J. Zhao and **T. D. James**, *Chem Commun*, **2005**, 1889 - 1891.
- [69] '**Detection of anions using a fluorescent alizarin-phenylboronic acid ensemble**' Y. Kubo, A Kobayashi, Y. Misawa and **T. D. James**, *Chem Commun*, **2005**, 2846-2848.
- [70] '**Fluorescent alizarin-phenylboronic acid ensembles: design of self-organized molecular sensors for metal ions and anions**' Y. Kubo, T. Ishida, A. Kobayashi, **T. D. James**, *J. Mater. Chem*, **2005**, 15, 2889-2895.
- [71] '**Chemoselective and enantioselective fluorescent recognition of sugar alcohols by a bisboronic acid receptor**' J. Zhao and **T. D. James**, *J. Mater. Chem.*, **2005**, 15, 2896-2901.
- [72] '**Simple protocol for NMR analysis of the enantiomeric purity of primary amines**' Y. Perez-Fuertes, A. M. Kelly, A. L. Johnson, S. Arimori, S. D. Bull and **T. D. James**, *Org. Lett.*, **2006**, 8, 609 -612.
- [73] '**Simple protocol for NMR analysis of the enantiomeric purity of diols**' A. M. Kelly, Y. Perez-Fuertes, S. Arimori, S. D. Bull and **T. D. James**, *Org. Lett.*, **2006**, 8, 1971-1974.
- [74] '**Highly selective fluoride ion detection based on a fluorescent alizarin-o-aminomethylphenylboronic acid ensemble in aqueous MeOH solution**' Y. Kubo, T. Ishida, T. Minami and **T. D. James**, *Chem. Lett.*, **2006**, 35, 996-997.
- [75] '**Saccharide-selective boronic acid based photoinduced electron transfer (PET) fluorescent sensors**' **T. D. James**, *Top. Curr. Chem.*, **2007**, 277, 107-152.
- [76] '**Ion Pair-Driven Heterodimeric Capsule Based on Boronate Esterification: Construction and the Dynamic Behavior**' K. Kataoka, **T. D. James**, and Y. Kubo, *J. Am. Chem. Soc.*, **2007**, 129, 15126 -15127.
- [77] '**Simple protocols for NMR analysis of the enantiomeric purity of chiral amines**' Y. Perez-Fuertes, A. M. Kelly, J. S. Fossey, M. E. Powell, S. D. Bull, **T. D. James**, *Nature Protocols*, **2008**, 3, 210 - 214.
- [78] '**Simple protocols for NMR analysis of the enantiomeric purity of chiral diols**' A. M. Kelly, Y. Perez-Fuertes, J. S. Fossey, S. Lozano Yeste, S. D. Bull, **T. D. James**, *Nature Protocols*, **2008**, 3, 215 - 219.
- [79] '**6,6'-Bis-substituted BINOL Boronic Acids as Enantioselective and Chemoselective Fluorescent Chemosensors for D-Sorbitol**' X. Liang, **T. D. James**, J. Zhao, *Tetrahedron*, **2008**, 64, 1309 - 1315
- [80] '**Electrocatalytic Determination of Sulphite at Immobilised Microdroplet Liquid | Liquid Interfaces: The EIC' Mechanism**' N. Katif, S. M. MacDonald, A. M. Kelly, E. Galbraith, **T. D. James**, A. T. Lubben, M. Opallo, and F. Marken, *Electroanalysis*, **2008**, 20, 469 - 475
- [81] '**Simple chiral derivatization protocols for NMR analysis of the enantiopurity of 1,2-diphenylethane-1,2-diamine and N-Boc-cyclohexane-1,2-diamine**' A. M. Kelly, S. D. Bull and **T. D. James**, *Tetrahedron: Asymmetry*, **2008**, 19, 489 - 494.

- [82] *'Intramolecular cation- π interactions control the conformation of nonrestricted (phenylalkyl)pyridines'* I. Richter, J. Minari, P. Axe, J. P. Lowe, **T. D. James**, K. Sakurai, S. D. Bull and J. S. Fossey, *Chem. Commun.*, **2008**, 1082 - 1084.
- [83] *'Click-fluors": Modular fluorescent saccharide sensors based on a 1,2,3-triazole ring'* D. K. Scrafton, J. E. Taylor, M. F. Mahon, J. S. Fossey and **T. D. James**, *J. Org. Chem.*, **2008**, 73, 2871 - 2874.
- [84] *'Polymerisation Resistant Synthesis of Methacrylamido Phenylboronic Acids'* F. D'Hooge, D. Rogalle, M. J. Thatcher, S. P. Perera, J. M. H. van den Elsen, A. T. A. Jenkins, **T. D. James** and J. S. Fossey, *Polymer*, **2008**, 49, 3362–3365.
- [85] *'Chiral Mono Boronic Acid As Fluorescent Enantioselective Sensor for Mono α -Hydroxyl Carboxylic Acids'* L. Chi, J. Zhao, T. D. James, *J. Org. Chem.*, **2008**, 73, 4684-4687.
- [86] *'Fluorescent Boron Bis(phenolate) with Association Response to Chloride and Dissociation Response to Fluoride'* E. Galbraith, T. M. Fyles, F. Marken, M. G. Davidson, **T. D. James**, *Inorg. Chem.*, **2008**, 47, 6236–6244.
- [87] *'Boronic Acids in Molecular Self-Assembly'* N. Fujita, S. Shinkai and **T. D. James**, *Chem. Asian. J.*, **2008**, 3, 1076-1091.
- [88] *'Pyrophosphate-induced reorganization of a reporter–receptor assembly via boronate esterification; a new strategy for the turn-on fluorescent detection of multi-phosphates in aqueous solution'* A. Nonaka, H. Shoichi, **T. D. James** and Y. Kubo, *OBC*, **2008**, 6, 3621-3625.
- [89] *'A Computational Characterization of Boron-Oxygen Multiple Bonding in $\text{HN}=\text{CH}-\text{CH}=\text{CH}-\text{NH}-\text{BO}'$* J. D. Larkin K. L. Bhat, G. D. Markham, **T. D. James**, B. R. Brooks C. W. Bock, *J. Phys. Chem.*, **2008**, 112, 8446-8454.
- [90] *'Hierarchical carbon nanotube assemblies created by sugar–boric or boronic acid interactions'* Author(s): S. Tamesue, M. Numata, K. Kaneko **T. D. James**, S. Shinkai, *Chem. Commun.*, **2008**, 4478-4480.
- [91] *'Boronate Affinity Saccharide Electrophoresis (BASE): a Novel Carbohydrate Analysis Tool'* T. R. Jackson, J. S. Springall, D. Rogalle, N. Masumoto, H. C. Lee, F. D'Hooge, S. P. Perera, A. T. A. Jenkins, **T. D. James**, J. S. Fossey and J. M. H. van den Elsen, *Electrophoresis*, **2008**, 29, 4185–4191
- [92] *'Dynamic covalent self-assembled chiral macrocycles prepared from 2-formyl-phenyl-boronic acids and amino alcohols'* E. Galbraith, A. M. Kelly, J. S. Fossey, M. G. Davidson, S. D. Bull, **T. D. James**, *New J. Chem.*, **2009**, 33, 181-185.
- [93] *'Solid state structures and solution analyses of a phenylpropylpyridine N -oxide and an N -methyl phenylpropylpyridine'* I. Richter, M. R. Warren, J. Minari, S. A. Elfekey, W. Chen, M. F. Mahon, P. R. Raithby, **T. D. James**, K. Sakurai, S. J. Teat, S. D. Bull, J. S. Fossey, *Chem. Asian. J.*, **2009**, 4, 194-198.
- [94] *'Chiral derivatization protocol for ^1H NMR and ^{19}F NMR spectroscopic analysis of the enantiopurity of chiral diols'* S. Lozano Yeste, M. E. Powell, S. D. Bull, **T. D. James**, *J. Org. Chem.*, **2009**, 74, 427–430.
- [95] *'Simple protocol for ^1H NMR analysis of the enantiopurity of O -silyl-amino-alcohols'* M. E. Powell, A. M. Kelly, S. D. Bull, **T. D. James**, *Tetrahedron Lett.*, **2009**, 49, 876-879.
- [96] *'Boronic Acid-Facilitated α -Hydroxy-Carboxylate Anion Transfer at Liquid | Liquid Electrode Systems: The EIC_{rev} Mechanism'* N. Katif, R. A. Harries, A. M. Kelly, J. S. Fossey, **T. D. James**, and F. Marken, *J. Solid State Electrochem*, **2009**, 13, 1475–1482.
- [97] *'Dye Displacement Assay for Saccharide Detection with Boronate Hydrogels'* W. M. J. Ma, M. P. Pereira Morais, F. D'Hooge, J. M. H. van den Elsen, J. P. L. Cox, **T. D. James** and J. S. Fossey, *Chem Commun*, **2009**, 532-534
- [98] *'3,6-Disubstituted Carbazole-Based Bisboronic Acids with Unusual Fluorescence Transduction as Enantioselective Fluorescent Chemosensors for Tartaric Acid'* F. Han, L. Chi, X. Liang, S. Ji, S. Liu, F. Zhou, Y. Wu, K. Han, J. Zhao and **T. D. James**, *J. Org. Chem.* **2009**, 74, 1333–1336
- [99] *'Amine-triggered molecular capsules using dynamic boronate esterification'* K. Kataoka, S. Okuyama, T. Minami, **T. D. James** and Yuji Kubo, *Chem. Commun.* **2009**, 1682-1684
- [100] *'Ratiometric Fluorescence Sensing of Fluoride Ions by an Asymmetric Bidentate Receptor of Boronic Acid and Imidazolium Group'* Z. Xu, S. K. Kim, S. J. Han, C. Lee, G. Kociok-Kohn, **T. D. James** and J. Yoon, *Eur. J. Org. Chem.* **2009**, 3058–3065
- [101] *'A surface plasmon enhanced fluorescence sensor platform'* S. A. Elfekey, F. D'Hooge, L. Poncel, W. Chen, S. P. Perera, J. M. H. van den Elsen, **T. D. James**, A. T. A. Jenkins, P. J. Cameron and J. S. Fossey, *New J. Chem.*, **2009**, 33, 1466-1469.
- [102] *'Carbohydrate sensing using a fluorescent molecular tweezer'* M. D. Phillips, T. M. Fyles, N. P. Barwell and T. D. James, *Chem Commun*, **2009**, 6557-6559
- [103] *'Rational Design of d -PeT Phenylethynylated-Carbazole Monoboronic Acids Fluorescent Sensors For the Selective Detection of α -Hydroxyl Carboxylic Acids and Monosaccharides'* X. Zhang, L. Chi, S. Ji, Y. Wu, P. Song, K. Han, H. Guo, **T. D. James**, and J. Zhao, *J. Am. Chem. Soc.*, **2009**, 131, 17452–17463
- [104] *'Analysis of Protein Glycation using Phenylboronate Acrylamide Gel Electrophoresis'* M. P. Pereira Morais, J. D. Mackay, S. K. Bhamra, J. G. Buchanan, J. S. Fossey, **T. D. James** and J. M. H. van den Elsen, *Proteomics*, **2010**, 10, 48-58.
- [105] *'Diol Appended Quenchers for Fluorescein Boronic Acid'* S. A. Elfekey, S. E. Flower, N. Masumoto, F. D'Hooge, L. Labarthe, W. Chen, C. Len, **T. D. James**, J. S. Fossey, *Chem. Asian. J.*, **2010**, 5, 3581-588.
- [106] *'Boronic acid dendrimer receptor modified nanofibrillar cellulose membranes'* M. J. Bonne, E. Galbraith, **T. D. James**, M. J. Wasbrough, K. J. Edler, A. T. A. Jenkins, M. Helton, A. McKee, W. Thielemans, E. Psillakis, F. Marken, *J. Mater. Chem.*, **2010**, 20, 588-594.
- [107] *' N,N -Butyl-Decamethylferrocenyl-Amine Reactivity at Liquid | Liquid Interfaces: Electrochemically Driven Anion Transfer versus pH Driven Proton Transfer'* A. M. Kelly, N. Katif, **T. D. James** and F. Marken, *New J. Chem.*, **2010**, DOI: 10.1039/c0nj00166j.

- [108] *'Effect of the Electron Donor/Acceptor Orientation on the Fluorescence Transduction Efficiency of the d-PET Effect of Carbazole-based Fluorescent Boronic Acid Sensors'* X. Zhang, Y. Wu, S. Ji, H. Guo, P. Song, K. Han, W. Wu, W. Wu, **T. D. James**, and J. Zhao *J. Org. Chem.* **2010**, *75*, 2578–2588.
- [109] *'Microwave-Electrochemical Formation of Colloidal Zinc Oxide at Fluorine Doped Tin Oxide Electrodes'* L. Rassaei, R. Jaber, S. E. Flower, K. J. Edler, R. G. Compton, **T. D. James**, and Frank Marken, *Electrochimica Acta*, **2010**, DOI:10.1016/j.electacta.2010.01.068
- [110] *'Electrochemical Method for the Determination of Enantiomeric Excess of Binol Using Redox-Active Boronic Acids as Chiral Sensors'* G. Mirri, S. D. Bull, P. N. Horton, **T. D. James**, L. Male and J. H. R. Tucker, *J. Am. Chem. Soc.*, **2010**, DOI: 10.1021/ja103462x
- [111] *'Synthesis of a Highly Hydrophobic Cationic Lipid and its Structural and Thermodynamic Studies for Interaction with DNA'* T. Nishimura, T. Cho, A. M. Kelly, M. E. Powell, J. S. Fossey, S. D. Bull, **T. D. James**, H. Masunaga, I. Akiba and K. Sakurai, *Bull. Chem. Soc. Jpn.*, **2010** in press
- [112] *'A Pyridinium Cation- π Interaction Sensor for the Fluorescent Detection of Alkyl Halides'* W. Chen, S. A. Elfeky, Y. Nonne, L. Male, K. Ahmed, C. Amiable, P. Axe, S. Yamada, **T. D. James**, S. D. Bull and J. S. Fossey, *Chem Commun*, **2010** in press

Chemical and Engineering News

- [1] C. R. Cooper, and **T. D. James**. *Fluorescent sensor detects glucosamine*. 1997, 75(31), 11
- [2] C. R. Cooper, N. Spencer, and **T. D. James**. *Fluorescent sensors detect fluoride ions*. 1998, 76(28), 15-16
- [3] C. J. Ward, P. Patel, P. R. Ashton, and **T. D. James**. *Sensor detects glucose by large color change*. 2000, 78(7), 79
- [4] S. Arimori, S. Ushiroda, L. M. Peter, A. T. A. Jenkins and **T. D. James** *Nonenzymatic glucose sensor*. 2002, 80(43), 33

Licences and Patents

- [1] **T. James**, T. Komori, Y. Shiomi, T. Harada and S. Shinkai. *Cholesteric liquid crystal composition*. JP 6228561 (1994).
- [2] **T. James**, T. Komori, Y. Shiomi, T. Harada and S. Shinkai. *Method for detecting sugar*. JP 6229925 (1994).
- [3] **T. James**, T. Komori, M. Aoki and S. Shinkai. *Cholesteric boronic acid capable of being used for separation and analysis of saccharide*. JP 6293792 (1994).
- [4] **T. James**, S. Sandanayake and S. Shinkai. *Fluorescent phenylboronic acids for detection of saccharides*. GB 2284809 (1995).
- [5] **T. James**, S. Sandanayake and S. Shinkai. *A boronic acid compound having a binaphthyl group*. JP 8245643 (1996)
- [6] **T. James**, S. Sandanayake and S. Shinkai. *Fluoreszente Verbindung geeignet zur Verwendung bei der Detection von Sacchariden*. DE 4439783 (1996)
- [7] **T. James**, S. Sandanayake and S. Shinkai. *Boron acid group bearing fluorescence emitting compound*. JP 8053467 (1996)
- [8] **T. James**, S. Sandanayake and S. Shinkai. *Fluorescent compounds suitable for the detection of saccharides*. US 5503770 (1996)
- [9] **T. James**, S. Shinkai and S. Sandanayake. *A boronic acid compound having a binaphthyl group*. EP 729962 (1996).
- [10] **T. James**, S. Shinkai and S. Sandanayake. *Boronic acid compound having a binaphthyl group*. US 5763238 (1998)
- [11] P. Patel, C. J. Ward and **T. D. James**. *Arylboronic acid dyes and detection of polyhydroxyl compounds therewith*. WO 0112727 (2001).
- [12] **T. D. James** and S. Arimori. *Electrochemical saccharide sensor*. US 2002164671 (2002).
- [13] P. Patel, **T. James** and C. Ward. *A method for detecting fluoride*. WO 0225252 (2002).
- [14] S. Arimori and **T. D. James**. *Photo-induced electron transfer fluorescent sensor molecules*. US 6387672 (2002).
- [15] M. L. Bell, **T. D. James**, S. Arimori, *Sensor system for saccharides*, US 7358094 (2008).
- [16] University of Bath, *Materials and methods for resolving polyhydric species by electrophoresis*: GB0818674.4 (2009)

Plenary Lectures Presented at Scientific Meetings

- [1] **Osaka University Macromolecular Symposium (OUMS'07). (2007)**
Icho Kaikan, Osaka University (Suita Campus), Osaka, Japan.
Title: Molecular Recognition using Boronic acids
- [2] **International Conference on Molecular Machines and Sensor (ICMMS). (2007)**
East China University of Science and Technology, Shanghai, China.
Title: Molecular Recognition using Boronic acids
- [3] **Ewha NanoBio 2nd International Symposium. (2007)**
Ewha W.U. Seoul, South Korea
Title: Molecular Recognition using Boronic acids
- [4] **First International Symposium on Atomic Technology for Molecular Functions (ISATMF). (2007)**
Tsukuba Research Centre for Interdisciplinary Materials Science (TIMS), University of Tsukuba, Tsukuba, Japan
Title: Molecular Recognition using Boronic acids
- [5] **Southampton Supramolecular Chemistry Symposium SSCS-5. (2008)**
University of Southampton, Southampton, UK
Title: Molecular Recognition using Boronic acids

Lectures Presented at Scientific Meetings

- [1] **Third Chemical Congress of North America. (1988)**
Toronto, Ontario, Canada.
Title: Supramolecular Pore-formers: Bola Amphiphilic Mimics of Pore-forming Antibiotics.
- [2] **54th Applied Physics Conference. (1993)**
Hokkaido University, Hokkaido, Japan.
Title: Chiral Discrimination of Monosaccharides by Colour and Gel Formation.
- [3] **ERATO Symposia. (1993)**
Keidanren Kaikan, Tokyo, Japan.
Title: High-Ordered Molecular Recognition: Molecular Recognition of Saccharides and its Application.
- [4] **Polymer Conference: Research Meeting for Bio-Polymer Division. (1994)**
Tsuyazaki, Fukuoka, Japan .
Title: Cholesterol as a Versatile Platform for Chiral Recognition.
- [5] **Joint Dutch and Japanese (ERATO) Symposium. (1995)**
University of Twente, Enschede, The Netherlands.
Title: Selective Saccharide Sensing With Di-Boronic Acids.
Title: Cholesterol as a Versatile Platform for Chiral Recognition.
- [6] **Photonics West. (1999)**
San Jose, California, USA.
Title: Fluorescent Sensors Based on Boronic Acids
- [7] **RSC SW Regional Meeting. (2000)**
University of Reading, Reading, England.
Title: Boronic acids for Molecular Recognition
- [8] **26th International Symposium on Macrocyclic Chemistry. (2001)**
Sea Hawks Resort, Fukuoka, Japan
Title: Molecular Recognition using Boronic acids
- [9] **Colour Chemistry in the 21st Century. (2002)**
SCI, Belgrave Square, London, UK.
Title: Colourimetric Sensors
- [10] **RSC SW Regional Meeting. (2004)**
School of Chemistry, University of Bristol, England
Title: Fluorescent Sensors
- [11] **6th Annual Supramolecular Meeting in Ireland. (2005)**
Department of Chemistry, Trinity College Dublin, Dublin, Ireland.
Title: Molecular Recognition using Boronic acids:
- [12] **Gregynog Synthesis Symposium. (2005)**
Gregynog, Wales.
Title: Molecular Recognition using Boronic acids
- [13] **Boronic acids Symposium at Pacificchem. (2005)**
Pacificchem 2005, Honolulu, Hawaii, USA.
Title: Chiral Recognition Using Boronic Acid Based Sensors
- [14] **Fun Day of Chemistry. (2006)**
Trinity College Dublin, Dublin, Ireland
Title: Molecular Recognition using Boronic acids
- [15] **American Chemical Society, 232nd National Meeting & Exposition (2006)**
San Francisco, California, U.S.A.
Title: A simple protocol for NMR analysis of the enantiomeric purity of primary amines and diols
- [16] **American Chemical Society, 232nd National Meeting & Exposition (2006)**
San Francisco, California, U.S.A.
Title: Chiral Recognition Using Boronic Acid Based Sensors
- [17] **American Chemical Society, 233rd National Meeting & Exposition (2007)**
Chicago, Illinois, U.S.A.
Title: Boronic acids as sensors for anions
- [18] **Fun Day of Chemistry. (2008)**
Trinity College Dublin, Dublin, Ireland
Title: Molecular Recognition using Boronic acids
- [19] **Ewha NanoBio 3rd International Symposium. (2008)**
Ewha W.U. Seoul, South Korea
Title: Molecular Recognition using Boronic acids

- [20] **The 2008 Korea-Japan Symposium on Frontier Photoscience. (2008)**
 Ramada Plaza Hotel, Jeju, South Korea
Title: Molecular Recognition using Boronic acids
- [21] **Catalysis and Sensing for our Environment CASE08. (2008)**
 University of Bath, Bath, UK
Title: Molecular Recognition using Boronic acids
- [22] **Supra-Nano 2008. (2008)**
 University of Birmingham, Birmingham, UK
Title: Molecular Recognition using Boronic acids
- [23] **American Chemical Society, 238th National Meeting & Exposition (2009)**
 Washington DC, U.S.A.
Title: Analysis of protein glycation using phenylboronate acrylamide gel electrophoresis
- [24] **The 13th Asian Chemical Congress (2009)**
 Shanghai International Convention Centre, Shanghai, China
Title: Simple protocols for NMR analysis of enantiomeric purity
- [25] **Catalysis and Sensing for our Environment CASE09. (2009)**
 East China University of Science and Technology, Shanghai, China
Title: Molecular Recognition using Boronic acids
- [26] **10th Annual Supramolecular Meeting in Ireland. (2009)**
 Department of Chemistry, Trinity College Dublin, Dublin, Ireland.
Title: Molecular Recognition using Boronic acids
- [27] **BioNano Workshop. (2010)**
 Hirschegg, Austria
Title: Boronic acid based receptors for carbohydrate detection and potential disease diagnosis

Invited Seminars

- [1] **University of Birmingham. (1995)**
 School of Chemistry, University of Birmingham, Edgbaston, Birmingham, England.
Title: Saccharide Recognition.
- [2] **Chemotransfiguration Project. (1998)**
 Kurume Research Centre, Kurume, Fukuoka, Japan.
Title: Saccharide Recognition
- [3] **National Institute of Materials and Chemical Research (NIMC). (1998)**
 Tsukuba, Ibaraki, Japan.
Title: Saccharide Recognition
- [4] **University of Tsukuba. (1998)**
 Tsukuba, Ibaraki, Japan.
Title: Saccharide Recognition
- [5] **University of Sheffield. (1999)**
 School of Chemistry, University of Sheffield, Sheffield, England.
Title: Saccharide Recognition
- [6] **University of Warwick. (2000)**
 School of Chemistry, University of Warwick, Coventry, England.
Title: Saccharide Recognition
- [7] **UMIST. (2001)**
 School of Chemistry, UMIST, Manchester, England.
Title: Saccharide Recognition
- [8] **Osaka University. (2002)**
 Laboratory for Molecular Recognition Chemistry and Photochemistry, Department of Molecular Chemistry, Graduate School of Engineering, Osaka University, Osaka, Japan
Title: Molecular Recognition using Boronic acids
- [9] **Osaka City University. (2002)**
 Department of Applied and Bioapplied Chemistry, Graduate School of Engineering, Osaka City University, Osaka, Japan
Title: Molecular Recognition using Boronic acids
- [10] **Nanoarchitectonics Research Center (NARC). (2002)**
 Tsukuba Central, Tsukuba, Japan
Title: Molecular Recognition using Boronic acids
- [11] **University of Tsukuba. (2002)**
 Department of Chemistry, University of Tsukuba, Tsukuba, Japan.
Title: Molecular Recognition using Boronic acids

- [12] **Waseda University. (2002)**
Department of Applied Chemistry, School of Science and Engineering, Waseda University, Tokyo, Japan.
Title: Molecular Recognition using Boronic acids
- [13] **Saitama University. (2002)**
Department of Applied Chemistry, Faculty of Engineering, Saitama University, Tokyo, Japan.
Title: Molecular Recognition using Boronic acids
- [14] **ERATO Nanospace Project. (2002)**
Japan Science and Technology Corporation, Tokyo, Japan.
Title: Molecular Recognition using Boronic acids
- [15] **Tohoku University. (2002)**
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Sendai, Japan.
Title: Molecular Recognition using Boronic acids
- [16] **Hokkaido University. (2002)**
Nanotechnology Research Center, Research Institute for Electronic Science, Hokkaido University, Sapporo, Japan.
Title: Molecular Recognition using Boronic acids
- [17] **Kitakyushu University. (2002)**
Department of Chemical Processes and Environments, Faculty of Environmental Engineering, The University of Kitakyushu, Fukuoka, Japan.
Title: Molecular Recognition using Boronic acids
- [18] **Nagasaki University. (2002)**
Department of Materials Science, Graduate School of Science and Technology, Nagasaki University, Nagasaki, Japan.
Title: Molecular Recognition using Boronic acids
- [19] **Kyoto University. (2002)**
Department of Synthetic Chemistry and Biological Chemistry, Graduate School of Engineering, Kyoto University, Kyoto, Japan.
Title: Molecular Recognition using Boronic acids
- [20] **Waseda University. (2003)**
Department of Applied Chemistry, School of Science and Engineering, Waseda University, Tokyo, Japan.
Title: Molecular Recognition using Boronic acids
- [21] **Tokyo University. (2003)**
Department of Applied Chemistry, Graduate School of Engineering, The University of Tokyo, Tokyo, Japan
Title: Molecular Recognition using Boronic acids
- [22] **Saitama University. (2003)**
Department of Applied Chemistry, Faculty of Engineering, Saitama University, Tokyo, Japan.
Title: Combinatorial Chemistry
- [23] **Osaka University. (2003)**
Department of Macromolecular Science, Graduate School of Science, Osaka University, Osaka, Japan
Title: Molecular Recognition using Boronic acids
- [24] **The University of Kitakyushu. (2003)**
Department of Chemical Processes and Environments, Faculty of Environmental Engineering, The University of Kitakyushu, Fukuoka, Japan.
Title: Molecular Recognition using Boronic acids
- [25] **Kyushu University. (2003)**
Department of Chemistry & Biochemistry, Graduate School of Engineering, Kyushu University.
Title: Saccharide Recognition
- [26] **The Queens University Belfast. (2004)**
School of Chemistry, Queens University Belfast, Belfast
Title: Molecular Recognition using Boronic acids
- [27] **National Institute of Advanced Industrial Science and Technology (AIST). (2004)**
Tsukuba Central, Tsukuba, Japan
Title: Fluorescence Sensors
- [28] **University of Tsukuba. (2004)**
Department of Chemistry, University of Tsukuba, Tsukuba, Japan.
Title: Fluorescence Sensors
- [29] **British Council Science Seminars for high school students. (2004)**
Ohtawara High School, Ohtawara City, Tochigi, Japan.
Title: Fluorescence Sensors
- [30] **University of Tsukuba. (2005)**
Department of Chemistry, University of Tsukuba, Tsukuba, Japan.
Title: Molecular Recognition using Boronic acids: Fluorescent and Colorimetric Sensors for Saccharides and Fluoride

- [31] **University of Osaka. (2005)**
Department of Chemistry, University of Osaka, Osaka, Japan.
Title: Molecular Recognition: Fluorescent and Colorimetric Sensors for Saccharides and Fluoride
- [32] **Smart Holograms. (2005)**
Smart Holograms Limited, 291 Cambridge Science Park, Milton Road, Milton, Cambridge, UK.
Title: Molecular Recognition using Boronic acids: Fluorescent and Colorimetric Sensors for Saccharides and Fluoride
- [33] **University of Victoria. (2005)**
Department of Chemistry, University of Victoria, Victoria, Canada.
Title: Molecular Recognition: Fluorescent and Colorimetric Sensors for Saccharides and Fluoride
- [34] **University of East Anglia. (2006)**
School of Chemical Sciences and Pharmacy, University of East Anglia Norwich, England
Title: Molecular Recognition using Boronic acids
- [35] **UCLA. (2006)**
California NanoSystems Institute, UCLA, Los Angeles, USA
Title: Molecular Sensors using Boronic acids
- [36] **University of Manchester. (2006)**
Department of Chemistry, University of Manchester, Manchester, England.
Title: Molecular Recognition using Boronic acids
- [37] **University of Geneva. (2007)**
Department of Chemistry, University of Geneva, Geneva, Switzerland.
Title: Molecular Recognition using Boronic acids
- [38] **University of Freiburg. (2007)**
Department of Microsystems Engineering – IMTEK, University of Freiburg, Freiburg, Germany.
Title: Molecular Recognition using Boronic acids
- [39] **National University of Singapore. (2007)**
Department of Chemistry, National University of Singapore, Singapore.
Title: Molecular Recognition using Boronic acids
- [40] **Shanghai Institute of Organic Chemistry. (2007)**
Department of Chemistry, National University of Singapore, Singapore.
Title: Molecular Recognition using Boronic acids
- [41] **Université de Poitiers. (2007)**
Bâtiment Chimie Synthèse et Réactivité des Substances Naturelles, University of Poitiers, Poitiers, France
Title: Molecular Recognition using Boronic acids
- [42] **University Colledge Dublin. (2007)**
School of Chemistry, University Colledge Dublin, Dublin, Ireland.
Title: Molecular Recognition using Boronic acids
- [43] **Kyushu University. (2007)**
Department of Chemistry & Biochemistry, Graduate School of Engineering, Kyushu University.
Title: Molecular Recognition using Boronic acids
- [44] **Tokyo University. (2007)**
Department of Chemistry, Tokyo University, Tokyo, Japan.
Title: Molecular Recognition using Boronic acids
- [45] **University of Texas at Austin. (2007)**
Department of Chemistry, University of Texas at Austin, Austin, Texas, USA.
Title: Molecular Recognition using Boronic acids
- [46] **University of Miami. (2007)**
Department of Chemistry, University of Miami, Miami, Florida, USA.
Title: Molecular Recognition using Boronic acids
- [47] **Saga University. (2008)**
Department of Chemistry, Saga University, Saga, Japan.
Title: Molecular Recognition using Boronic acids
- [48] **Osaka University. (2008)**
Department of Macromolecular Science, Graduate School of Science, Osaka University, Osaka, Japan
Title: Molecular Recognition using Boronic acids
- [49] **Kyoto University. (2008)**
Department of Synthetic Chemistry and Biological Chemistry, Faculty of Engineering, Kyoto University, Kyoto, Japan.
Title: Molecular Recognition using Boronic acids
- [50] **Edinburgh University. (2008)**
School of Chemistry, Edinburgh University, Edinburgh, UK.
Title: Molecular Recognition using Boronic acids

- [51] **Korea University. (2008)**
Korea University, Seoul, South Korea
Title: Molecular Recognition using Boronic acids
- [52] **New York University. (2008)**
NYU, New York, USA
Title: Molecular Recognition using Boronic acids
- [53] **Cambridge University. (2009)**
Cambridge University, Cambridge, UK.
Title: Boronic acid based materials for carbohydrate detection
- [54] **Seoul National University. (2009)**
Seoul National University, Seoul, South Korea.
Title: Molecular Recognition using Boronic acids
- [55] **Yonsei University. (2009)**
Yonsei University, Seoul, South Korea.
Title: Molecular Recognition using Boronic acids
- [56] **Nagasaki University. (2009)**
Nagasaki University, Nagasaki, Japan.
Title: Boronic acid based materials for carbohydrate detection
- [57] **University of Hong Kong. (2009)**
University of Hong Kong, Hong Kong.
Title: Molecular Recognition using Boronic acids
- [58] **Hong Kong University of Science and Technology. (2009)**
Hong Kong University of Science and Technology, Hong Kong.
Title: Molecular Recognition using Boronic acids
- [59] **East China Normal University. (2009)**
East China Normal University, Shanghai, China.
Title: Molecular Recognition using Boronic acids
- [60] **Shanghai Institute of Organic Chemistry. (2009)**
Shanghai Institute of Organic Chemistry, Shanghai, China.
Title: Molecular Recognition using Boronic acids
- [61] **Xiamen University. (2009)**
Xiamen University, Xiamen, China.
Title: Molecular Recognition using Boronic acids
- [62] **Dalian University of Science and Technology. (2009)**
Dalian University of Science and Technology, Dalian, China.
Title: Molecular Recognition using Boronic acids
- [63] **East China University of Science and Technology (2010)**
ECUST, Shanghai, China.
Title: Molecular Recognition using Boronic acids
- [64] **Fudan University (2010)**
Fudan University, Shanghai, China.
Title: Molecular Recognition using Boronic acids

Editorial Board Membership

Member of Editorial Board of Open Organic Chemistry (2007-2010)

Member of Editorial Board of Chemistry Central (Since 2007)

Reviewer of Scientific Articles

Angewandte Chemie; Journal of the American Chemical Society; Organic Letters; Journal of Organic Chemistry; The Journal of Physical Chemistry; Langmuir; Oligonucleotides; Chemical Communications; Organic and Biomolecular Chemistry; New Journal of Chemistry; Chemical Society Reviews; Journal of Materials Chemistry; Tetrahedron; Tetrahedron Letters; Journal of Chemical Research; Physical Chemistry Chemical Physics; Australian Journal of Chemistry; Synthetic Communications; Supramolecular Chemistry; Journal of Fluorescence; Journal of Heterocyclic Chemistry; Synlett; ARKIVOC; ChemBioChem, Nature Chemistry, PNAS.