

CURRICULUM VITAE

SUSAN A. BOURNE

Professor of Physical Chemistry, Department of Chemistry, University of Cape Town

ORCID ID: 0000-0002-2491-2843

ResearcherID: C-8141-2011

EDUCATION

1986 BSc (Chemistry), with distinction in Chemistry. University of Cape Town.

1987 BSc Hons. (Chemistry), 2nd class. University of Cape Town.

1991 PhD (Chemistry). University of Cape Town.

Thesis title: *Inclusion compounds of Hydroxy Host Compounds.*

RECENT AWARDS

- Fellow of the University of Cape Town, 2010
- Fellow of the Royal Society of Chemistry (UK), 2014

EMPLOYMENT HISTORY

1992 Research Officer, Department of Chemistry, University of Cape Town.

1993 Robert A Welch Postdoctoral Fellow, Texas Christian University, Fort Worth, Texas, USA.

1994 Lecturer, Department of Chemistry, University of Cape Town.

1998: Senior Lecturer, Department of Chemistry, University of Cape Town.

2003 Associate Professor, Department of Chemistry, University of Cape Town.

2008 Professor, Department of Chemistry, University of Cape Town.

2015 Professor of Physical Chemistry, Department of Chemistry, University of Cape Town.

2012-2021 Head of Department, Department of Chemistry, University of Cape Town.

2013-2016 Deputy Dean, Faculty of Science, University of Cape Town.

TEACHING EXPERIENCE

Courses taught: general, analytical and physical chemistry at all levels. My approach is to emphasise the application of theory to real-life problems. This is assisted by using examples drawn from my own research to illustrate the applicability of curriculum material.

UNIVERSITY/DEPARTMENT ADMINISTRATION

- Head of Department of Chemistry (2012-2016, 2017-2021)
- Deputy Dean, undergraduate matters, Faculty of Science (2013-2016)
- Student Advisor and Programme Convenor (Chemical, Molecular & Cellular Sciences) (2001 – 2011)
- Core committee member for the Science Faculty Promotion and Remuneration Committee (2012 -)
- Senate Executive Committee, elected by Professors (2012-2016, 2016-2020)
- Science Faculty Accreditation Committee, Chair (2013-2016)
- Science Faculty Masters' Degree Committee (2013-2016)
- University Examinations & Assessment Committee (2003-2016)
- Senate Teaching & Learning Committee (2015-2016)
- Job Evaluation Committee (Dean's nominee, 2015 – 2017)
- UCT Conference Travel Grants Committee (2007-2009; Deputy Chair, 2010-2012)

SCIENTIFIC AND PROFESSIONAL BODIES

- International Union of Crystallography (IUCr) Commission on Structural Chemistry, Chair 2017-2020
- European Crystallographic Association (ECA) Special Interest Group on Molecular Recognition (including as chair 2009 - 2012)
- Royal Society of Chemistry, UK and South African Chemical Institute
- Royal Society of South Africa: Council member, 2006-2008.
- International Advisory Editorial Board, *CrystEngComm* (publisher: Royal Society of Chemistry)
- Board of Editors, *Crystal Growth & Design* (publisher: American Chemical Society)
- Various NRF proposal and rating committees including convener of Chemistry rating panel in 2011.

- Various international conference organising and scientific programme committees, most recently:
 - IUCr Congress 2014, Montreal, Canada. Scientific programme committee.
 - 1ST Pan-African Conference on Crystallography, Dschang, Cameroon, 2016. Scientific programme committee.
 - International Conference on the Chemistry of the Organic Solid State, ICCOSS23, Stellenbosch, 2017. Organising committee.
 - 2nd Pan-African Conference on Crystallography, Accra, Ghana, 2018. Scientific Programme committee.
- Promotions/evaluations for most South African universities as well as the following international universities : Chalmers University of Technology, Sweden (2007), Hong Kong Research Grants Council (2012, 2014, 2016), University of Michigan, USA (2015), Kwame Nkrumah University of Science & Technology, Ghana (2014, 2016).
- Reviewed papers for a number of international journals

POSTGRADUATE STUDENT SUPERVISION

Current PhD students: Savannah Zacharias, Christophe Ndamyabera, Christelle Dzesse Tekouo, Francoise Amombo Noa, Giselle Vicatos, Nicola Dare, Margaret Olawale, Anjali Devi Das, Nicole Sykes,

Graduated students:

PhD: Lee Hunt (2017), Vaughan Maurel (2016), Gift Mehlana (2014), Kate Davies (2012), Dyanne Cruickshank (2011), Halima Samsodien (2011), Jin-Jing Li (2010), Vincent Smith (2009), Lesego Moitsheki (2006), Kirsten Corin (2006), Oren Hallale (2004), Clive Oliver (2004), Hong Su (2002), Katherine Gifford Nash (1997)

MSc: Buntubonke Mzondo (2013), Emile Engel (2011, Distinction), Siyanda Lubhelwana (2005, Distinction), Pamela Dean (2005, Distinction), Vincent Smith (2004, Distinction), Mazwi Ndlovu (2001), Mairi Kilkenny (2001, Distinction), Eino Mvula (1999), Michelle Kuttel (1999)

Postdoctoral researchers: Dr Rajdip Dey, Dr Ahmad Husain, Dr Boris-Marko Kukovec, Dr Nikoletta Báthori, Dr Andreas Lemmerer, Dr Gaelle Ramon

RESEARCH INTERESTS

- NRF rating: B2 (2008; renewed 2014).
- Research interests: Supramolecular chemistry, particularly crystal engineering.
- Current projects include synthesis of functional metal-organic frameworks; applications of co-crystals to improve properties of pharmaceutical and nutraceutical agents.
- All of my research involves working with postgraduate students. Part of this work has been carried out in the form of international collaborations which are detailed below.

INTERNATIONAL COLLABORATORS

International researchers with whom I am currently collaborating include:

Prof Alessia Bacchi and Prof Enrico Dalcanale (University of Parma, Italy)

Prof Emmanuel Nfor (University of Buea, Cameroon)

Dr Petra Bombicz (Chemistry Research Institute, Hungarian Academy of Sciences)

Dr Clement Tella (University of Ilorin, Nigeria)

Prof Dario Braga (University of Bologna, Italy)

Prof Lars Öhrström (Chalmers University, Sweden)

Dr Never Tshabang and Dr Apollinaire Munyaneza (University of Botswana)

Dr Gift Mehlana (Midlands State University, Zimbabwe)

Prof Mike Zaworotko (University of South Florida, USA and University of Limerick, Ireland)

Dr Janet Scott (Monash University, Australia; now University of Bath, UK)

RESEARCH OUTPUT

- 148 papers in recognized peer-reviewed journals.
- 4 chapters in books.
- Regular attendance at national and international conferences, including several keynote and plenary lectures.