

Curriculum Vitae
Professor Stuart Robert Batten
B.Sc.(Hons), Ph.D., GCHE, FRSC, FRACI, C. Chem.

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ResearcherID: <https://publons.com/researcher/4825476/stuart-batten> (publications, citations)

GoogleScholar: <https://scholar.google.com.au/citations?user=-boqPhwAAAAJ&hl=en>
(publications, citations)

Date of Birth: June 7, 1969

Nationality: Australian

Qualifications:

- **Bachelor of Science (Degree with Honours).** 1991. University of Melbourne. Completed 1/12/90. Conferred 13/3/91.
- **Doctor of Philosophy.** 1996. University of Melbourne. Submitted 5/9/95. Conferred 28/8/96. Supervised by Richard Robson and Bernard F. Hoskins.
- **Graduate Certificate in Higher Education.** 2007. Monash University. Conferred 18/10/07.

Career Highlights:

- 2017 **Distinguished Professor**, School of Chemical Science and Engineering, Tongji University, Shanghai, China.
- 2014-2016 **Distinguished Adjunct Professor**, Department of Chemistry, Faculty of Science, King Abdulaziz University, Saudi Arabia.
- 2012- **Professor**, School of Chemistry, Monash University.
- 2010-2012 **Associate Head (Postgraduate)**, School of Chemistry, Monash University.
- 2010-2013 **ARC Future Fellow**, Monash University.
- 2009-2011 **Associate Professor**, School of Chemistry, Monash University.
- 2007-2008 **Senior Lecturer**, School of Chemistry, Monash University.
- 2006 **Lecturer**, School of Chemistry, Monash University.
- 2001-2005 **ARC Australian Research Fellow**, Monash University.
- 1998-2000 **ARC Australian Postdoctoral Research Fellow**, Monash University, with Keith Murray.
- 1997-1998 **Postdoctoral position**, University of Melbourne, with Richard Robson.
- 1996-1997 **Postdoctoral position**, Monash University, with Keith Murray.
- 1995-1996 **Postdoctoral position**, University of Bristol, U.K., with John Jeffery.

Awards:

- 2019, 2020, 2021 – Designated the **Australian research field leader** in Crystallography & Structural Chemistry by The Australian newspaper.
- 2019 – Royal Australian Chemical Institute **Hartung Lecturer**.
- 2017 – Elected Fellow of the Royal Society of Chemistry.
- 2014, 2015, 2016 – Designated as a **Highly Cited Researcher** in the field of Chemistry by Thomson Reuters. In 2014 Chemistry list contained only 198 names worldwide across the whole field, and just two in Australia. In 2015 the same list contained 205 names worldwide, with five in Australia; in 2016 there were three Australians in a list of 215 names.
- 2009 – Awarded the **Ollé Prize** by the Royal Australian Chemical Institute for *Coordination Polymers: Design, Analysis and Application*, S.R. Batten, S.M. Neville and D.R. Turner, Royal Society of Chemistry, Cambridge, 2009.
- 2008 – Elected Fellow of the Royal Australian Chemical Institute.
- 2008 – Awarded a **Thomson Scientific Citation Award** by Thomson Scientific. Award recognized the highest average citation rate amongst Australian researchers in the field of Chemistry for the period 1997 to 2007.
- 2008 – Awarded the **Le Fèvre Memorial Prize** by the Australian Academy of Science. Award recognises outstanding basic research in chemistry by scientists under 40.
- 2007 – Selected as one of the **Cosmos Bright Sparks** by the Editorial Advisory Board of Cosmos magazine. Awards recognise the top 10 young scientists aged 40 or under in Australia.
- 2006 – Awarded a **Victorian Young Tall Poppy Science Award** by the Australian Institute of Political Science. Awards recognise the achievements of outstanding young researchers in the sciences.
- 2006 – Awarded the inaugural **Vice-Chancellor's Early Career Researcher Award** by Monash University. Awarded to a researcher within 10 years of the conferring of their PhD.
- 2006 – Awarded the inaugural **Early Career Researcher Award** by the Faculty of Science, Monash University. Awarded to a researcher within 10 years of the conferring of their PhD.
- 2005 – Awarded the **HG Andrewartha Medal** by the Royal Society of South Australia. This Medal is awarded to a scientist under the age of 40 in recognition of outstanding research. It is awarded only sparingly and not necessarily every year.
- 2003 – Awarded the **Edgeworth David Medal** by the Royal Society of New South Wales. This Medal is awarded annually to a scientist under the age of 35 for distinguished contributions to Australian science.
- 2002 – Awarded the **Rennie Memorial Medal** by the Royal Australian Chemical Institute. This is awarded annually to a member of the RACI under the age of 35 who has contributed most towards the development of some branch of chemical science. Such contribution is judged by the research work published during the ten years immediately preceding the award.

Service:

- **Associate Editor** (Handling), **Australian Journal of Chemistry** (2008-).
- Advisory Board, **Acta Crystallographica, Section E** (2014-).
- International Advisory Board, **ChemPlusChem** (2012-2019).

- Editorial Boards of **Inorganica Chimica Acta** (2011-2019), **Polyhedron** (2011-2013), and **Complex Metals: an Open Access Journal** (2013-2015).
- Member of International Union of Pure and Applied Chemistry (IUPAC) **task groups** on:
 - (i) “Terminology guidelines and database issues for topology representations in coordination networks, metal-organic frameworks and other crystalline materials” #2014-001-2-200 (2014-).
 - (ii) “Terminology and Nomenclature of Inorganic and Coordination Polymer” #2011-035-1-800 (2011-).
 - (iii) “Coordination polymers and metal organic frameworks: terminology and nomenclature guidelines” #2009-012-2-200 (2009-2013).
- Chair (2014-2017) and member (2008-2014) of the International Union of Crystallography (IUCr) Commission on Structural Chemistry.
- President (2014-2016), Vice-President (2012-2014) and Secretary (2007-2012) of the **Society of Crystallographers in Australia and New Zealand (SCANZ)**. Member of the Nominations Committee of SCANZ (2022-).
- Member, National Committee for Crystallography, **Australian Academy of Science** (2015-).
- Chair of the **Inorganic Chemistry Special Interest Group** of the Victorian Branch of the Royal Australian Chemical Institute (RACI) (2004-2010).
- Victorian representative for the **Inorganic Division** of the RACI (2003-2013).
- Co-chair and co-founder of the inaugural **Australasian Crystallography School** (2008); member of the organising committee of the 2013 school. Taught at all Schools to date (2008, 2011, 2013, 2016, 2019), as well as an international school in Beijing (2009).
- Member of **Powder Diffraction Program Advisory Committee** at the Australian Synchrotron (2010-2011).
- Member of the **Single Crystal Instrument Advisory Team** for the OPAL Nuclear Reactor at Lucas Heights (2003).
- Member of the Organising Committee for the **2023 International Union of Crystallography Congress (IUCr2013)** meeting, Melbourne (August 2023).
- Member of the Organising Committee for the **6th International Conference on Metal-Organic Frameworks & Open Framework Compounds (MOF2018)** meeting, Auckland (December 2018).
- Member of the International Advisory Board for the **41st International Conference on Coordination Chemistry (ICCC-41)** meeting, Singapore (21-25 July 2014).
- Member of the International Scientific Advisory Committee for the joint **AsCA’12/Crystal28/ Bragg Centennial** meetings, Adelaide (2-6 December 2012).
- Member of the International Programme Committee for the **2010 Asian Crystallographic Association Meeting (AsCA’10)**, Busan, Korea (31 Oct – 3 Nov 2010).
- Chair of the organizing committee for the **30th Meeting of SCANZ (Crystal 30)**, Hobart, Tas (29 March – 1 April, 2016); member of the programme committees for **Crystal 27**, Rotorua, NZ (27-30 April 2011), **Crystal 26**, Barossa Valley, SA (14-17 April 2009), and **Crystal 25**, Hunter Valley, NSW (10-13 April 2007).
- Member of the **School Executive**, School of Chemistry, Monash University (2010-2012).
- Member of the **Education Committee**, School of Chemistry, Monash U (2007-2009).

- Member of the **Science Faculty Board**, Monash U (2007-2009).
- Member of the **Zone 13 OHSE committee**, Monash U (2006-2011).
- **Radiation Safety Officer**, School of Chemistry, Monash U (2006-2011).
- Manager, X-ray diffraction facility, School of Chemistry, Monash U (2006-2011).

Research Highlights:

- **Research interests** include inorganic chemistry, supramolecular chemistry, crystal engineering, coordination polymers, topology, interpenetration, magnetic properties, gas sorption, X-ray crystallography, small cyano anions, metal clusters, and ionic liquids.
- An international reputation in the area of **crystal engineering**. A world **leading expert** on the phenomenon of **interpenetration** of networks in crystal structures.
- **326 refereed journal papers, 1 book, 10 book chapters, 100+ conference presentations**. These include 38 invited contributions.
- **Very high citation rates** – 30,000+ in total, or almost 90 per published paper. Seventy-three papers have 100 or more citations each; 135 have 50 or more. **H-index = 85**.
- **Invited lectures** at the Singapore International Chemical Conference 2 (SICC2; Dec. 2001), 19th Congress and General Assembly of the International Union of Crystallography (IUCr XIX) in Geneva (Aug. 2002), the International Conference on Materials for Advanced Technologies (ICMAT 2003, Singapore Dec. 2003), IUCr XX in Florence (Aug. 2005), the 2009 Beijing Summer School of Crystallography, Crystal Engineering, and Functional Materials (July 2009), Pacificchem '10 (Hawaii, Dec. 2010), Crystal 27 (Rotorua, NZ, April 2011), 2012 International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC-7, Dunedin, NZ, Feb. 2012), Metal-Organic Frameworks, Porous Coordination Polymers and Zeolites (Stockholm, May 2012), Crystal Engineering Gordon Research Conference (Waterville Valley, NH, USA, June 2012), International Conference of the Indonesian Chemical Society 2012 (Malang, Indonesia, Sept. 2012), ISMSC-8 (Washington, USA, July 2013), Science at the Shine Dome (Australian Academy of Science, Canberra, 2015), Frontiers in Crystalline Materials Chemistry Forum (Zhengzhou, China, 2017 (**plenary**)), RACI Inorganic Chemistry IC19 (Wollongong, Dec. 2019).
- **Guest editor** for *Chem. Comm.* (MOFs (2020)), *CrystEngComm* (International Year of Crystallography (IYCr)), *Aust. J. Chem.* (IYCr; Richard Robson), *Chemistry in Australia* (IYCr), *Phil. Trans. R. Soc. A* (MOFs), *ChemPlusChem* (MOFs), *Inorg. Chim. Acta* (MOFs).
- **Referee** for over 650 papers submitted to 47 different journals (including *Nature Materials*, *Nature Chemistry*, *Nature Communications*, *Chem. Comm.*, *Dalton*, *New J. Chem.*, *Chem. Soc. Rev.*, *JACS*, *Inorg. Chem.*, *Angew. Chem.*, *Eur. J. Inorg. Chem.*, *Aust. J. Chem.*), as well as ARC, NSERC (Canada), NSF (USA), PRF (USA), KOSK (Norway), SFI (Ireland), FWF (Austria), FCT (Portugal), SRNSF (Georgia), Ministry of Education (Singapore), and Marsden (NZ) funding applications, as well as beamtime proposals for both the Australian Synchrotron and OPAL Neutron Instruments. Referee for 16 PhD and MSc **theses**.
- **Collaborations** with 50 distinct research groups, based in Australia, China, Iran, India, Denmark, New Zealand, Switzerland, Spain, France and the United Kingdom. These include the groups of Keith Murray (Monash), Leone Spiccia (Monash), Bruce West (Monash), Doug MacFarlane (Monash), Glen Deacon (Monash), David Turner (Monash), Alan Chaffee (Monash), Phillip Marriott (Monash), Cameron Kepert (Sydney), Mark Humphrey (ANU), Chris Sumby (Adelaide), Christine J. McKenzie and Hans Toftlund (Odense, Denmark), Michael D. Ward (Sheffield, UK), Samiran Mitra (Jadavpur U, Kolkata, India), Partha Sarathi Mukherjee (Bangalore, India), Miao Du and Xiao-Jun Zhao (Tianjin Normal U, Tianjin, China), Xian-He Bu and Jimin Zheng (Nankai U,

Tianjin, China), Song Gao and Zheming Wang (Beijing, China), Xian-Ming Zhang (Linfen, China), Yao-Yu Wang (Northwest U, Xi'an, China), Quan-Guo Zhai (Shaanxi Normal U, Xi'an, China), Shi-Yao Yang (Xiamen, China), En-Bo Wang and Jian-Fang Ma (Northeast Normal U, Changchun, China), Xiao-Ming Chen and Ming-Liang Tong (Sun Yat-Sen U, Guangzhou, China), Hong Deng (South China Normal U, Guangzhou, China), Yu-Bin Dong (Jinan, China), Rong Cao and Can-Zhong Lu (Fuzhou, Fujian, China), Fupei Liang (Guangxi Normal U, Guilin, China), Ning-Hai Hu and Hongjie Zhang (Changchun Institute of Applied Chemistry, China), Xiang He (Shanghai U, China), Hegen Zheng (Nanjing U, China), Li-Ya Wang (Luoyang Normal U, China), Chun-Sen Liu (Zhengzhou U of Light Industry, Zhengzhou, China), Hongwei Hou (Zhengzhou U, China) Zheng-Bo Han (Liaoning U, Shenyang, China), Feng Luo (East China Institute of Technology, Fuzhou, Jiangxi, China), Ghodrath Mahmoudi (Islamic Azad U, Tabriz, Iran), Paul Kruger (U Canterbury, NZ), Ed Constable and Catherine Housecroft (Basel, Switzerland), Jean-François Létard (ICMCB, Bordeaux, France), and Matthew Hill (Materials Science and Engineering, CSIRO).

Major Research Funding:

Including fellowships, personal ARC funding for 1998-present is ca. \$3.9M; CI on grants of more than \$15M.

- **2024-2027** ARC Discovery DP240103089 (with C Richardson), *Charge-Controlled Materials for Separations of Important Resources*, \$443K.
- **2017** ARC LIEF LE170100065 (with J White and 11 others), *Victorian Molecular Structure Elucidation Facility*, \$830K.
- **2015-2016** KACST National Science Technology and Innovation Plan (Saudi Arabia) 14-ADV2429-03 (with KM Alzaydi and 2 others), *Control of interpenetration topology in advanced network materials*, \$A632K.
- **2014** King Abdulaziz University HiCi Program (with AMA Turkustani and 2 others), *Scorpionate Building Blocks for Supramolecular Chemistry*, \$A137K.
- **2014-2016** ARC Discovery DP140101980, *New Directions for Small Cyano Anions*, \$330K.
- **2013-2015** ARC Discovery DP130104622, *Multifunctional Nanoballs and Variable Length Ligands*, \$360K.
- **2012-2016** Science and Industry Endowment Fund (SIEF) CH080010 (with CJ Kepert and 17 others), *Solving the Energy Waste Roadblock*, \$6M.
- **2011** ARC LIEF LE110100170 (with M Humphrey and 7 others), *A tunable femtosecond light source for materials and biological sciences*, \$200K.
- **2010** ARC LIEF LE100100109 (with JM White and 18 others), *Small molecule X-ray molecular structure elucidation facility*, \$530K.
- **2010** ARC LIEF LE100100197 (with KS Murray and 8 others), *National magnetochemical facility*, \$200K.
- **2010-2012** ARC Discovery DP1094744, *Advanced Materials constructed from 'Nanoballs' and Variable Length Ligands*, \$330K.
- **2010-2012** ARC Discovery DP1097198 (with GB Deacon), *Small Cyano Anions: A Gateway to New Materials*, \$300K.
- **2010-2013** ARC Future Fellowship FT0991840, *Building Advanced Materials from the Bottom Up*, \$886K.

- **2009-2011** DIIST International Science Linkages, Australia-China Special Fund for Scientific and Technological Cooperation CH080010 (with M Humphrey and 11 others), *Joint research centre for functional molecular materials*, \$282K.
- **2008** ARC LIEF LE0882977 (with SJ Langford and 16 others), *Enhanced NMR Research, Characterisation and Analysis Facility*, \$600K.
- **2007-2009** ARC Discovery DP0771940, *Reactive coordination polymers and supramolecules*, \$270K.
- **2006-2008** ARC Discovery DP0665938 (with DR Turner), *Heterobimetallic coordination complexes*, \$272K.
- **2005** ARC LEIF LE0561249 (with PC Junk and 16 others), *Enhanced X-ray analysis and characterisation facility*, \$651K.
- **2004-2005** ARC Discovery DP0449718, *Coordination Networks and Supramolecules with Chemically Active Reaction Sites*, \$180K.
- **2004-2008** ARC Research Networks RN0460256 (with CJ Kepert and 48 others), *Molecular and materials structure network*, \$1.5M.
- **2002** ARC Discovery DP0208486, *Coordination Networks and Supramolecules with Potential Post-Assembly Chemical Activity*, \$20K.
- **2001-2005** ARC ARF F00103375, *Functional coordination polymers and supramolecules*, \$405K.
- **1998-2000** ARC APD F29804208, *Magnetic and Structural Properties of Paramagnetic Species Linked into Extended and Polymeric Arrays*, \$150K.

Professional Affiliations:

- Member of the Royal Australian Chemical Institute since 1989; Fellow since 2008.
- Member of the Society of Crystallographers in Australia and New Zealand since 1990.
- Member of the Royal Society of Chemistry since 2014; Fellow since 2017.