

Curriculum Vitae: Edward R.T. Tiekink

{Current as at March 2019}

Date of Birth:

April 4th, 1960

Citizenship:

Australia (PB1918442)

The Netherlands (NT7R7R5P2)

Qualifications:

B.Sc. (Hons) (Melb) 1982

Ph.D. (Melb) 1985

D.Sc. (Melb) 2006



Professional Membership:

Fellow (2003), Royal Society of Chemistry – Fellow (2003 –)

Royal Australian Chemical Institute – Member (1984 – 1998); Fellow (1998 –)

Society of Crystallographers Malaysia – Member (2014 –)

Present Position:

Distinguished Professor and Head of the Research Centre for Crystalline Materials at Sunway University, Selangor Darul Ehsan, Malaysia, since November 2015

Membership of Editorial Boards:

Crystals (Founding Editorial Board (Crystal Engineering section), 2018 –)

Zeitschrift für Kristallographie – New Crystal Structures (Editorial Board, 2018 –)

IUCrData (Founding Co-Editor, 2016 –)

Acta Crystallographica E (Founding Co-Editor, 2001 – 2011; Section Editor, mid-2011 – mid-2017)

Applied Organometallic Chemistry (Section Co-Editor, 2003 – 2007; Editorial Board, 2008 – 2013; Associate Editor, 2013 – 2014)

Zeitschrift für Kristallographie (Co-Editor, 1997 – 2009; Editor, 2010 –)

Main Group Metal Chemistry (1993 – 2000; Associate-Editor, 2000 – 2002)

Bioinorganic Chemistry & Applications (2003 – 2009)

Metal-Based Drugs (1996 – 2002)

Teaching Experience:

General chemistry (structure and bonding)

Introductory physical chemistry

Inorganic chemistry (all levels)

Metal-based drugs

X-ray crystallography

Research Interests:

Solid-State Chemistry / Crystal Engineering

- i) delineating the factors dictating supramolecular aggregation in compounds of the main group elements,
- ii) aurophilic associations versus hydrogen-bonding – relationship to luminescence characteristics,
- iii) synthetic precursors for metal organic chemical vapour deposition,
- iv) non-directional intermolecular forces, structural systematics designed to rationalize the influence of crystal structure upon molecular structure,
- v) metal-organic framework structures as new materials for luminescence and gas storage applications,
- vi) co-crystal formation with active pharmaceutical ingredients (API's), and
- vii) metal...pi interactions as supramolecular synthons.

Metal-Based Drugs

- i) gold-based pharmaceuticals with anti-arthritis, anti-microbial and anti-tumour activity,
- ii) developing bismuth thiolates pharmaceuticals, and
- iii) exploring the potential of main group elements as novel pharmaceutical agents.

Publications:

Total: **2038** comprising

Research papers (full papers):

838

Short crystallographic reports (<i>i.e. Acta Crystallographica E Structure Reports, Zeitschrift für Kristallographie – New Crystal Structures, etc.</i>):	1108
Reviews, Chapters of books, <i>etc.</i> :	60
Edited books:	6
Patents:	5
Miscellaneous:	21

Publication metrics:

ISI Web of Science

Total number of publications	1,701
Total number of citations:	20,203
Average Citations per paper:	11.88
h-index:	61

Google Scholar

Total number of citations:	22,284
h-index:	68

Scopus

Total number of publications	2,012
Total number of citations:	22,719
h-index:	64

Lecture Presentations:

Research:	154
Outreach:	29

Research grants awarded at the Sunway University:

Exploration of the interaction between microRNA and organometallic compounds: Synthesis of heterometallic thiolates of gold and ferrocene residues (TRGS)

Role: Principal Investigator (UM/Sun-U). Duration: 2014-2017. Total funding (UM/Sun-U): RM 206,000, total funding (with UPM, PI: Dr YK Cheah): RM **688,000**.

Rational design of functional multi-component crystals

Role: Principal Investigator (Sun-U). Duration: 2016. Total funding: RM **20,000**

Organotin(IV) complexes containing multidentate nitrogen-sulphur ligands - single crystal X-ray crystallographic analyses and mechanistic studies on bladder cancer cells (FRGS 2016-1)

Role: Project Leader: Thahira Begum (UPM). Duration: 2017. Total funding: RM **124,160**

Overview:

Edward Tiekink is a graduate of The University of Melbourne (1985) where he obtained his Ph.D. in Inorganic Chemistry/X-ray Crystallography under the supervision of Dr B.F. Hoskins and Dr G. Winter. A research position in chemical crystallography with Dr M.R. Snow followed at The University of Adelaide (1985-1988). Tiekink joined academic staff at Adelaide in 1989 and was promoted to Senior Lecturer, with tenure, in 1995. In mid-2001, he moved to the National University of Singapore as a contract Associate Professor. After completing his contract in Singapore, he has held a visiting position at Deakin University (Victoria, Australia) and a prestigious Smart Returns Fellowship sponsored by the State Government of Queensland tenable at Griffith University (Queensland, Australia). In September 2005, Tiekink commenced an appointment in the Department of Chemistry at The University of Texas at San Antonio where he was a full Professor (with tenure) and Associate Dean (Graduate Studies). In 2009 Tiekink made his way back to Asia after a three months stint in Brazil (Universidade Saõ Carlos). He spent four months (two secondments) at Nanyang Technological University and then joined the University of Malaya in November 2009 as a Professor in the Department of Chemistry. Recently, December 2015, Tiekink accepted a position as a Distinguished Professor and Head of the Research Centre for Crystalline Materials at Sunway University.

During his career, substantial teaching experience has been gained in areas such as course/curriculum development, student counselling and formal delivery of academic material (general chemistry, introductory physical chemistry, inorganic chemistry, metal-based drugs, and X-ray crystallography); teaching awards have been gained in both Adelaide and Singapore. Research interests include metal-based drugs (especially those of bismuth and gold) and crystal engineering. He is the author/co-author of over 1900 scientific papers, crystallographic reports, book chapters, reviews and patents, and has co-edited five books, one in Metal-Based Drugs, four in Crystal Engineering, and one in Tin Chemistry. In 2006, Tiekink was awarded a D.Sc. from the University of Melbourne in recognition of his work (structural and pharmaceutical properties) in main group element and gold chemistry.