

RANIL DION GUNERATNE

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EDUCATION

- 9/1982 - 9/1987 CORNELL UNIVERSITY. **Ph.D.** (Chemistry), January 1988 (Thesis: Total synthesis of the structurally interesting natural products *nigellicine*, *nigellidine*, and *chilenone-A.*); **M.S.** (Chemistry), May 1984.
- 4/1976 -12/1980 UNIVERSITY OF COLOMBO, **B.Sc.** (Chemistry) with First Class Honours.
- 1/1964 - 3/1976 S. Thomas' College, Mt. Lavinia.

EMPLOYMENT

- 8/2017 – present **Consultant.**
- 4/2005 – 7/2017 **Senior Lecturer Grade I**, Department of Chemistry, University of Colombo, Colombo 03, Sri Lanka. *Courses taught include introductory, intermediate, and synthetic organic chemistry, biochemistry, pharmaceutical chemistry, organometallic chemistry, biophysical chemistry, and spectroscopic methods in organic chemistry (as a Visiting Lecturer at the University of Sri Jayawardenepura, Nugegoda, Sri Lanka). Member, University Senate (2015-2017); Chair, Senate Committee on Work Norms and Ethics; Chair, Senate Committee to review Sri Palee Campus. Chair, Science Faculty By-Laws Committee (2015-16); Chair, Curriculum Development and Evaluation Committee (2016).*
- 5/2013 – 1/2015 **Visiting Associate Professor**, Department of Chemistry, College of Engineering, Science, and Technology, Fiji National University, Lautoka Campus, Natabua, Lautoka, FIJI (*on sabbatical leave from the University of Colombo*).
- 8/2007 - 7/2010 **Director/CEO**, National Science and Technology Commission of Sri Lanka (NASTEC), Colombo 05, Sri Lanka (*on secondment from the University of Colombo*). NASTEC is the advisory body to the Government of Sri Lanka on Science and Technology Policy issues.
- 1/2001 - 3/2005 **Senior Lecturer Grade I**, Department of Chemistry, Open University of Sri Lanka, Nugegoda, Sri Lanka. *Author/editor of distance education course material. Served on University Senate and Higher Degrees Committee.*
- 8/2000 - 12/2000 **Teaching Associate**, Department of Chemistry, Cornell University, Ithaca, NY 14850, USA.
- 8/1998 - 6/2000 **Associate Professor** and Chemistry Program Director, Department of Chemistry

and Physics, Spring Hill College, Mobile, AL 36608, USA. Tenured in March, 1998. *Courses taught include general, organic, environmental, and analytical chemistry, biochemistry, and spectroscopic methods in organic chemistry. Served on Curriculum Review Committee. Research interests: approaches to the synthesis of fluorinated heterocycles.*

- 8/1995 - 7/1998 **Assistant Professor**, Department of Chemistry, Spring Hill College, Mobile, AL 36608, USA.
- 6/1995 - 8/1995
6/1997 - 8/1997 **Visiting Associate Professor**, Department of Chemistry, Cornell University, Ithaca, NY 14850, USA.
- 8/1990 - 6/1995 **Faculty member**, Division of Natural Science and Mathematics, Bennington College, Bennington, VT 05201, USA.
- 6/1993 - 8/1993
6/1994 - 8/1994 **Visiting Assistant Professor**, Department of Chemistry, Cornell University, Ithaca, NY 14850, USA.
- 9/1987 - 7/1990 **Post-doctoral Associate**, Department of Chemistry, The University of Iowa, Iowa City, IA 52242, USA. *Research; synthesis of perfluorinated phosphonic acids.*
- 6/1984 - 8/1987 **Research Assistant** (New York State Sea Grant), Department of Chemistry, Cornell University, Ithaca, NY 14850, USA.
- 9/1982 - 5/1984 **Teaching Assistant**, Department of Chemistry, Cornell University, Ithaca, NY 14850, USA.
- 2/1981 - 6/1982 **Quality Control Manager**, Chemical Industries (Colombo) Ltd., Ratmalana, Sri Lanka.

PROFESSIONAL ACTIVITIES

- Member, American Chemical Society (1986 - 2000).
- Member, Institute of Chemistry, Ceylon (2001 - present); Fellow (2009 - present); Council member (7/2001 - 4/2002, 7/2005 - 6/2007), Assistant Editor (4/2002 - 6/2002), Secretary for International Relations (7/2002 - 6/2004, 7/2007 - 3/2009).
- Member, Sri Lanka Association for the Advancement of Science (2001 - present); Assistant Editor (1/2002 - 5/2002); President, Section E2 (Chemical Sciences section), (2010); member, General Research Committee (2003 - 04); Council Member (2005, 2007, 2011); member, Science & Technology Advisory Committee (2006 - 07); member, Ethics Committee (2011, 2017). Secretary for International Relations (9/2015 - 12/2016). Editor (2017).
- Member, NSF Chemistry Committee (2003 - 04).
- Member, Science Standing Committee, University Grants Commission of Sri Lanka (2006 - 13).
- Participant, Associates training programme, Organisation for the Prohibition of Chemical Weapons, The Hague, The Netherlands, July-October, 2004.
- Member, National Steering Committee to implement Chemical Weapons Convention (2006 - 2012).

OTHER ACTIVITIES

- Member, U.S. Chess Federation (1994 - 2006)
- President, Cornell University Sri Lankan Students' Association (1984-85)
- Vice-President, Chess Federation of Sri Lanka (2003, 2007), Honorary Secretary (1981), Hony. Assistant Secretary (1980, 2004).
- Member, Sri Lankan Chess team, Madras (1974), Colombo (1976), Tripoli (1976), Singapore (Asian Team Championships, 1979).
- President, Mt. Lavinia Chess Club (4/2005 - 3/2013); Hony. Secretary, (4/2002 - 3/2005).

PUBLICATIONS

1. A. San Martin, J. Roviroso, O. Munoz, M.H.M. Chen, R.D. Guneratne, and J. Clardy, "The Isolation and Structure Determination of Chilenone-A." *Tetrahedron Letters*, **24**, 4063 (1983).
2. D.J. Burton, A.S. Modak, R.D. Guneratne, D. Su, W. Cen, R.L. Kirchmeier, and J.M. Shreeve, "Synthesis of (Sulfodifluoromethyl)phosphonic Acid." *J. Amer. Chem. Soc.*, **111**, 1773 (1989).
3. L.G. Sprague, D.J. Burton, R.D. Guneratne, and W.E. Bennett, "Synthesis and Characterization of (E) and (Z)-1,2-Difluoroethenediylbisphosphonates." *J. Fluorine Chem.*, **49**, 75 (1990).
4. H.K. Nair, R.D. Guneratne, A.S. Modak, and D.J. Burton, "Synthesis of Novel Fluorinated Bisphosphonates and Bisphosphonic Acids." *J. Organic Chem.*, **59**, 2393 (1994).
5. K. Kanamura, A. Tanaka, D. Gervasio, V. Kennedy, R. Adzic, E.B. Yeager, D. Burton, and R. Guneratne, "Perfluoroethylene-1,2-bisphosphonic Acid Fuel Cell Electrolyte." *J. Electrochem. Soc.*, **143**, 2765 (1996).
6. D.J. Burton and R.D. Guneratne, "Preparation and Functionalization of an Alkenylcopper Reagent Formed by the Syn Addition of (Dialkoxyposphinyl)-difluoromethylcopper to Hexafluoro-2-butyne." *J. Fluorine Chem.*, **98**, 11 (1999).
7. R. D. Guneratne, "Towards a Liberal Approach to Chemical Education." *Chemistry in Sri Lanka*, **20 (1)**, 4 (2003).
8. R. D. Guneratne, "Significant Figures: The Accurate Reporting of Numerical Results." *Chemistry in Sri Lanka*, **23 (1)**, 21 (2006).
9. R.D. Guneratne, "Global and Local Trends in Higher Education in Science," *Proceedings of the Workshop on the Theme "Review of Science Study Programmes: Recent Reforms, Lessons Learned and the Way Forward,"* University Grants Commission of Sri Lanka, 2011.
10. R.D. Guneratne, "Chemical Weapons and the International Response to Their Use," *Economic Review*, **37(3-4)**, 28 (2011).
11. R.D. Guneratne, "The Fascinating Applications of Organofluorine Chemistry," *Sri Lanka Association for the Advancement of Science, Proceedings of the 67th Annual Sessions - Part II*, 50 (2011).

12. B.L.C. Samanmali, M. Gunatilake, R.D. Guneratne, and T.R.K. Perera, "Hypoglycaemic effect of the methanolic extract of *Aporusa lindleyana* leaves on rats," *Journal of the National Science Foundation of Sri Lanka*, **42(2)**, 129 (2014).

CONFERENCE PRESENTATIONS

1. D.J. Burton and R.D. Guneratne, "Preparation and Functionalization of a Vinylic Copper Reagent Formed by the Syn Addition of Difluoro(diethoxy-phosphinyl)methylcopper to Hexafluoro-2-butyne." *American Chemical Society, Midwest Regional Meeting* (St. Louis, MO, November 1989).
2. D.J. Burton, H.K. Nair, and R.D. Guneratne, "Synthesis of New Fluorinated Bisphosphonates and Bisphosphonic Acids." *American Chemical Society, 10th Winter Fluorine Conference* (St. Petersburg, FL, January 1991).
3. R.D. Guneratne, "The Liberal Arts Model of Chemical Education," *Institute of Chemistry, Ceylon, International Conference on Chemical Education*, (Colombo, 2004).
4. R.D. Guneratne, "A Proposed Restructuring of the Institute of Chemistry's Graduateship Curriculum," *Institute of Chemistry, Ceylon, International Conference on Chemical Education*, (Colombo, 2004).
5. H.S.M. Pieris and R. D. Guneratne, "Reflections of the Past and Visions of the Future Graduateship Curriculum," *Institute of Chemistry, Ceylon, International Conference on Chemical Education*, (Colombo, 2004).
6. R.D. Guneratne, "The Fascinating Applications of Organofluorine Chemistry," Presidential Address, Section E2 (Chemical Sciences Section) of the Sri Lanka Association for the Advancement of Science (SLAAS), SLAAS Annual Sessions, (Colombo, 2010).
7. T.U. Jayawardena, R.D. Guneratne, S.I. Wickremasinghe, and K.M. Ukwatta, "Assessment of National Science Foundation Research Grant Output and Outcome in the Disciplines of Biochemistry and Biotechnology." *Proceedings of the 69th Annual Sessions of the SLAAS*, 195 (2013).
8. K.M. Ukwatta, R.D. Guneratne, S.I. Wickremasinghe, and T.U. Jayawardena, "Study of the Impact of Publicly Funded Research in Chemistry and Chemical Technology." *Proceedings of the 69th Annual Sessions of the SLAAS*, 196 (2013).

BOOK CHAPTERS

1. M.P. Liyanagedera, I.Y.K. Jayaweera, and R.D. Guneratne, "Factors Governing the Success or Failure of Technology Transfer: State Sector Experience of Sri Lanka," Ch. 17 in K. Ramanathan, K. Jacobs, and M. Bandhyopadhyay (eds.), *Technology Transfer and Small and Medium Enterprises in Developing Countries*, Centre for Science and Technology of the Non-aligned and Other Developing Countries, (NAM S&T Centre) Delhi, 2011.
2. R.D. Guneratne, "Significant Figures: How to report Numerical Results," in M.C.M. Iqbal, ed., *A Guide for Beginners in Research*, SLAAS (2014).