

Leif A. Eriksson

Department of Chemistry and Molecular Biology
University of Gothenburg
412 96 Göteborg, Sweden
Email: leif.eriksson@chem.gu.se



1. Basic education

B.Sc. in Chemistry at Stockholm University, 1988-06.

2. PhD degree

Ph.D. in Quantum Chemistry (Uppsala university) 1992-05. Thesis Title: *Computational Quantum Chemistry: Applications to Radical Cations, Polymerisation Reactions, Polymers and Charge Transfer Systems*. Main supervisor: Prof. Sten Lunell.

3. Postdoctoral fellowship

Swedish Research Council ('NFR') Postdoctoral Fellow in theoretical chemistry at Dalhousie Univ., Halifax, Canada (Prof. Russell J. Boyd), 1992-07 – 1993-06.

4. Docent

Docent in Applied Quantum Chemistry (Stockholm university), 1995-12.

5. Current employment

Professor, Physical chemistry, University of Gothenburg, Sweden (from 2011-09-01).

6. Previous employments

1993-07 – 1998-06 Researcher (Forskarassistent), Dept of Physics, Stockholm University
1998-07 – 2001-03 Assoc. Prof. in Applied Quantum Chemistry (lektor), Dept of Quantum Chemistry, Uppsala University
2001-04 – 2006-01 Assoc. Prof. in Theoretical Biophysics, Department of Biochemistry/
Department of Cell- and Molecular biology, Uppsala University
2004-01 – 2006-01 Assoc. Prof. in Biophysical Chemistry, Department of Natural Sciences, Örebro University (double affiliation with Uppsala university)
2006-02 - 2009-06 Professor of Biophysical and Theoretical Chemistry at Örebro University.
2009-07 - 2011-08 Professor of Biophysical and Theoretical Chemistry at NUI Galway, Ireland

7. Research breaks

1997-10 – 1998-06 Part-time parental leave (75%, 8 months) with first child.
2002-11 – 2003-06 Part-time parental leave (75%, 7 months) with second child.

8a. PhD student throughput as main supervisor:

Fahmi Himo, Stockholm University, PhD 2000; Jorge Llano, Uppsala University, PhD 2004; Bo Durbeej, Uppsala University, PhD 2004; Johan Raber, Uppsala University, PhD 2007; Klefah Musa, Örebro University, PhD 2009; Edvin Erdtman, Örebro University, 2010; Emma S.E. Eriksson, NUI Galway, Ireland, PhD 2011; Bo-Xue Tian, NUI Galway, Ireland, PhD 2012; Li Gao, Örebro University/KTH, PhD 2012; (Min Wu, GU, Sweden, PhD planned for 2015); (Chunxia Gao, GU, Sweden, PhD planned for 2015).

In addition to the above: Main supervisor for 8 Licentiate degrees (Swedish 'half PhD' degree). Assistant/co-supervisor for 9 PhD degrees.

8b. Postdoc supervision

In total 17 postdocs have worked in my research group:

James W. Gault (Australia) 1997-1999; Christer Enkvist (Sweden) 1998; Yan ni Wang (China) 1999-2001; Jian Wang (China) 2002; Chuan bao Zhu (China) 2002-2004; Xiao yi Li (China) 2003-2005; Rita C. Guedes (Portugal) 2003-2004; Daniel J.V.A. dos Santos (Portugal) 2004-2005; Ru bo Zhang (China) 2004-2005; Sofia S.M.C. Godinho (Portugal) 2005; Jon M. Matxain (Spain) 2005-2006; Patricia Saenz-Mendez (Uruguay) 2007; David Edvardsson (Sweden) 2007; Salama Legsal (Spain) 2008-2009; Dragan Adamovic (Sweden) 2008-2010; Klefah Musa (Libya) 2010-2011; Emma S.E. Eriksson (Sweden) currently in group.

9. Other information

Member of external committee at 18 PhD dissertations. External examiner of 8 PhD theses and 3 Licentiates.

Have participated in 67 Intl conferences and symposia, with posters or lectures. Invited/plenary speaker in 32 of these. Some 50 lectures at different universities and research institutes in Europe, North America and Australia. Have co-organized 7 international workshops/symposia, and initiated 2 international conference series. Routinely send all group members to at least one international conference per year; over the last 5 years, the group has presented ~50 posters or seminars.

228 scientific publications (published or in press), and 21 review papers/book chapters. ISI Science Citation index: >3700; h-index 35. 1 patent approved, and 3 more being developed. Editor for a book in theoretical biochemistry (Elsevier, 2001). Regular referee for all major theoretical/physical/bio-chemistry journals. Associate Editor of International Journal of Quantum Chemistry 1998-2002, with emphasis on Biochemistry/Biophysics. Proceedings Editor (IJQC) for 7 international conferences.

Research grants from the Swedish Research Council (NFR/VR) for work in theoretical chemistry / biophysical chemistry since 1992. Other grants during the last decade include Ivax research fund, Wood ultrastructure research center (WURC/SLU), Sparbanksstiftelsen Nya, and more. Total research grants of the order 1.5 MSEK per year. Total amount of external grants ca 27 MSEK. Extensive grants of computer time at national supercomputing facilities from 1994 onwards. Member of Management Committee of EU-COST programmes CODECS and Biomimetic Radical Chemistry.

One of the initiators to, and the first Chair (2006-2007) of Örebro Life Science Center, Örebro University. Initiator to, and Chair (2006-2009; 2012) of new Section for Theoretical Chemistry of the Swedish Chemical Society. One of the initiators to the international conference series Theoretical Biophysics Symposium.

Nominated to the Göran Gustafsson award in chemistry 2007.

Co-founder of drug development company Swedish Pharma AB in 2007.

Teaching at undergraduate and PhD student levels since 1989. Have developed new PhD courses on Density functional theory and Molecular photochemistry, and new undergraduate courses on Chemical structure and bonding, Maths for chemists and Biochemical modelling.

Main research field: Theoretical biochemistry/biophysics, especially catalytic processes of (radical) enzymes, reactive oxygen species, photochemistry and UV-induced damage processes, homology modelling and drug design (anti-tumour drugs, anti-inflammatory drugs and photodynamic compounds). Current focus on different aspects of Cancer, Protein modelling, Drug design and Aptamers. Research is based on high level quantum chemistry, density functional theory, molecular dynamics, multiscale modelling, homology modelling, pharmacophores and docking against large databases.