PERSONAL INFORMATION

NAME: Erik Göte Abrahamsson
POSITION: Postdoc, University of British Columbia, Vancouver, Canada
CITIZENSHIP: Swedish

CONTACT INFORMATION

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EDUCATION

DOCTORAL: Department of Chemistry, Physical Chemistry, University of Gothenburg, Sweden.
Reactive and non-reactive quantum scattering dynamics and scientific computing.
Supervisors: Gunnar Nyman, University of Gothenburg, and Nikola Markovíc, Chalmers University of Technology, Gothenburg, Sweden.
January 2002 – March 2008.

Accepted to **National Graduate School of Scientific Computing** (NGSSC), May 2002.

Visiting researcher, Department of Chemistry, Theoretical Chemistry, University of British Columbia.
Supervisor: Roman Krems.
April 2006 – March 2007.

UNDERGRADUATE: **Master of Science in Chemical Engineering and Engineering Physics**, Chalmers University of Technology, Gothenburg, Sweden.
Main elective subjects: Quantum physics, physical chemistry.
August 1995 – April 2002.

RELATED STUDIES: **Griffith University**, Brisbane, Australia.
Main subjects: Biochemistry, spectroscopy, NMR, Java.
February 1999 – December 1999.

SCHOLARSHIPS

Olle Engkvist Foundation Post-Doc Scholarship, 2007

The Sweden-America Foundation Post-Doc Scholarship, 2007

Faculty of Philosophy Travel Grant, 2003, 2005, 2006.

University of Gothenburg Centennial Fund Travel Grant, 2002.

National Graduate School of Scientific Computing Scholarship, Swedish Research Council, 2002.

The Swedish Association of Graduate Engineers' Fellowship Grant, 1999.

PUBLICATIONS

DOCTORAL THESIS: **Atom-Diatom Scattering - From Potential Energy Surfaces to Rate Constants**.
Thesis for the degree of Doctor of Philosophy.
Supervisors: Gunnar Nyman, University of Gothenburg, and Nikola Markovíc, Chalmers University of Technology.
Theses defended on April 1st, 2008.
Examiner: Sture Nordholm, University of Gothenburg.
Opponent: Uwe Manthe, Bielefeld University, Germany.
March 2008.

LICENTIATE THESIS: **Classical and Quantum Dynamics of the O + CN Reaction.**
Thesis to receive the Swedish graduate degree of Licentiate, about half way through a graduate program. Presented and examined at a public seminar.
Reviewer: Johan Bergenholtz, University of Gothenburg.
March 2006.

MASTER THESIS: ***In Silico* Synthesis of Weakly Coordination Anions.**
Supervisor: Patrik Johansson, Department of Physics, Material Physics, Chalmers University of Technology.
Examiner: Per Jacobsson, Chalmers University of Technology.
December 2001.

PAPERS: **E. Abrahamsson**, S. Andersson, N. Markovíc, and G. Nyman. *'Dynamics of the O + CN reaction and N + CO scattering on two coupled surfaces'*, J Phys Chem A **113**, 14824, (2009).

E. Abrahamsson and S. S. Plotkin. *'BioVEC: A program for Biomolecule Visualization with Ellipsoidal Coarse-graining'*, J Mol Graph Model, **28**, 140 (2009).

E. Abrahamsson, S. Andersson, N. Markovíc, and G. Nyman. *'A new reaction path for the CNO system'.* PCCP, **10**, 4400 (2008).

E. Abrahamsson, T. V. Tscherbul, and R. V. Krems. *'Inelastic collisions of cold polar molecules in nonparallel electric and magnetic fields'*, J Chem Phys, **127**, 044302 (2007).

E. Abrahamsson, G. C. Groenenboom, and R. V. Krems. *'Spin orbitrelaxation of Cl(2P1/2)and F(2P1/2) in a gas of H2'*, J Chem Phys, **126**, 184303 (2007).

E. Abrahamsson, R. V. Krems, and A. Dalgarno. *'Fine-structure excitation of O i and C i by impact with atomic hydrogen'*, ApJ, **654**, 1171 (2007).

E. Abrahamsson, S. Andersson, N. Markovíc, and G. Nyman. *'Classical and quantum dynamics of the O + CN reaction'*, Chem Phys, **234**, 507 (2006).

P. Johansson and **E. Abrahamsson**. '*A novel field of* ab initio *studies: Complexation of simple anions within neutral cryptands*', J Mol Struct THEOCHEM, **717**, 215 (2005).

PROGRAMMING SKILLS

FORTRAN – Advanced
C/C++, MATLAB, MPI – Intermediate
Java, Perl, Python, OpenMP, OpenGL – Beginner

STUDENTS SUPERVISED

Philip Edgcumbe, Engineering Physics coop work-study, *'Computational models of DNA'*. September 2009 – January 2010.

TEACHING EXPERIENCE

Teaching assistant, undergraduate laboratory course in spectroscopy, University of Gothenburg, 2007.

Teaching assistant, undergraduate course in physical chemistry, University of Gothenburg, 2002 – 2005.

Teaching assistant, introductory laboratory courses in chemistry, University of Gothenburg, 2002 – 2005.

EXTRACURRICULAR WORK

Postdoc Association, University of British Columbia, 2009 – 2010.

Chemistry Graduate Student Council, University of Gothenburg, 2002 – 2006.

KfKb-6, Chalmers University of Technology, 1996, 2002. Student society, organizing pubs and parties.

SNKfKb, Chalmers University of Technology, 1996 – 1998, 2000 – 2002. Student Council's Academic Policy Committee.

UUo, Chalmers University of Technology, 1998. Representative in the Student Council's Committee of Student's Affairs.

KfKb-Styret, Chalmers University of Technology, 1997. Secretary on the Board for the Undergraduate Student Society.

MILITARY SERVICE

Skyddstekniker, Totalförsvarets Skyddsskola**,** Umeå. NBC & Fire specialist. Rank of **Fänrik** (Second Lieutenant). Training include: Biological effects of radiation and hazardous chemicals and drugs, immunology, group dynamics and leadership. July 1994 – June 1995.

LANGUAGES

Swedish – Native.
English – Fluent.

REFERENCES

Available on request.