

# Curriculum Vitae

## 1. Personal details

- Full name: **Theo Christian Kurtén** (male)
- Date of birth and citizenship: 12<sup>th</sup> June 1980, Finnish
- ID numbers: ResearcherID: G-2120-2012, ORCID: 0000-0002-6416-4931
- Research group homepage: <https://wiki.helsinki.fi/x/MYZcD>

## 2. Education and degrees completed

- Docent in Physics, University of Helsinki, 28.2.2011.
- PhD in Physics, University of Helsinki, 20.12.2007.
- M.Sc. in Chemistry, University of Helsinki, 22.4.2005.

## 3. Current position

- **Academy Research Fellow**, Molecular Research Unit, Department of Chemistry, University of Helsinki, September 2013 - May 2019.
- *On leave of absence from a permanent position (since January 2012) as **University Lecturer** at the same unit*

## 4. Previous (academic) work experience

- Division of Atmospheric Sciences, Department of Physics, University of Helsinki: researcher (May 2005 - December 2012), research assistant (total of 2.5 months during 2002-2003).
- Department of Chemistry, University of Copenhagen, **Denmark**: post-doctoral researcher for a total of 18 months (September 2009 – June 2010, September 2010 – April 2011).
- Laboratoire de Météorologie Physique, Université Blaise-Pascal, Clermont-Ferrand, **France**: post-doctoral researcher for a total of 3 months during 2007 and 2008.
- Laboratory of Physical Chemistry, Department of Chemistry, University of Helsinki: research assistant (total of 7 months during 2003-2005).

## 5. Career breaks (total of 9 months)

- Full-time parental leave : April-June 2016
- Part-time (50%) parental leave : July 2016 to June 2017.

## 6. Personal Research Funding and Grants (total funding so far 1.76 M€)

- Academy of Finland, **Academy Project** “Atmospheric Autoxidation and Gas-Phase Dimerization of Complex Peroxyradicals”, 2018-2022, 410 395 €. **Ranked 1st out of 29 proposals** in the Atmospheric Science panel.
- Svenska Kulturfonden, 1-year **research grant**, 2018-2019, 35 000 €.
- University of Helsinki, **support funding** of the Faculty of Science 2017-2018, 30 000€.
- Academy of Finland, **NSF-GROW grant** for covering costs of visiting Graduate Research Fellows (GRF), 2017-2018, total of 15 300 € (two grants; GRFs Danielle Draper and Emma D’Ambro).
- Academy of Finland, **Academy Research Fellow project** “Quantum Chemistry in the Intersection of the Atmospheric Cycles: Kinetics of novel Sulfur, Carbon and Nitrogen reactions”, 2013-2018 (extended to 2019 due to parental leave), 425 000€ (personal salary) + 499 234€ (research costs).
- University of Helsinki, **3-year research grant** “Modeling the chemical ionization of condensable atmospheric trace gases and their clusters”, 2014-2016 (extended to 2017), 150 000€.
- Academy of Finland, **post-doctoral researcher project** “Novel Species in Atmospheric Nucleation”, 2009-2011, 195 000€.
- Various **travel grants** (e.g. NordPlus, U. Helsinki Chancellor’s grant) 2006-2017, total of around 8000 €.

## 7. Leadership and supervision experience

- **7 supervised PhD theses**: Noora Hyttinen (graduated 2018), Nanna Mylly (graduated 2017), Oona Kupiainen-Määttä (graduated 2016), Kai Ruusuvoori (graduated 2015), Tinja Olenius (graduated 2015), Ville Loukonen (graduated 2014), Martta Toivola (graduated 2014).
- **Currently supervising 5 PhD students** : Siddharth Iyer (since 2014, will graduate 2019), Jakub Kubecka (since 2017), Xucheng He (since 2017), Vili Salo (since 2018), Galib Hasan (since 2018).
- **Supervision of post-doctoral researchers** : Jani Moilanen (2015), Martta Toivola (2015-2017), Rashid Valiev (since 2018)

- **Supervision of visiting PhD students** : Yuwei Fu (2016-2017), Danielle Draper (2017-2018), Emma D'Ambro (2018).

## **8. Teaching experience and pedagogical merits**

- University of Helsinki (Departments of Physics and Chemistry), 2008-2018: 13 entire courses (with sole responsibility for course content and material preparation) lectured, partial lecturing on 3 courses
- 30.12.2016: Completed basic studies (25 ECTS points) in University Pedagogics at the University of Helsinki, with the overall grade 5/5 (consisting of the courses Yliopistopedagogiikka/Universitetspedagogik I – V).
- Docent lecture approved with the grade “excellent“, 28.2.2011.
- Honourable mention for developing teaching based on student feedback (by the Chemistry students’ union HYK as part of the *Teacher of the Year* selection process, 2013).
- Co-ordinator of the Master’s degree programme “Molecular Modeling of Nanoscale Materials”, University of Helsinki, 2012-2016.
- Member of the steering board of the Master’s Degree Programme in Atmospheric Science, since 2016.
- Member of the steering board of the English-language Bachelor’s Programme in Science, since 2018.

## **9. Experience of organising scientific meetings**

- Nordic Aerosol Symposium (NOSA) 2018: member of the **organizing committee**
- Atmospheric Chemical Mechanisms conference: member of the **program committee** 2014 & 2016
- International Aerosol Conference 2010 : assistant **organizer**
- NordForsk NICITA network workshop 2012 : co-**organizer**
- Chemistry Department Science Afternoons 2012-2018 : lead **organizer**
- International Aerosol Conference 2006 : session **chair**

## **10. Awards, prizes and honours**

- Finnish Association for Aerosol Research (FAAR) award for excellent work in aerosol science, 2011.

## **11. Other key scientific or academic merits**

- **119 peer-reviewed publications**, of which 4 in *Nature*, 1 in *Science*, 1 in *Phys. Rev. Lett.*, 2 in *Proc. Natl. Acad. Sci. USA*, 3 in *J. Am. Chem. Soc.*, 1 in *Angewandte Chemie International Ed.*, 1 in *Nature Communications*, and 2 in *J. Phys. Chem. Lett.* I am 1<sup>st</sup> author on 23, 2<sup>nd</sup> author on 19, and last and/or corresponding senior author on 15 articles. Sole docent-level author from Finland on 40 articles. 4878 citations, **h-index 35** (*data from ResearcherID*).
- **11 invited presentations at international conferences and workshops**, e.g. at the International Aerosol Modeling Algorithms conference in Davis, USA, 2017, the XXIIInd Horizons in Hydrogen Bond Research conference in Jyväskylä, Finland, 2017, and the Atmospheric Chemistry Gordon Conference in Sunday River, USA, 2019.
- **Reviewer** for 16 journals including *Nature Chemistry*, *JACS*, *EST* and *PCCP*. Nominated as “**outstanding referee**” by *Communications Chemistry* (<https://www.nature.com/commschem/referees/outstanding-referees>)
- **Reviewer** of the PhD thesis of Jussi Malila (2016).
- **Expert reviewer** of grant applications for the **Romanian** National Research Council, the **Czech** Science Foundation, the University of Helsinki 3-year research grants for young PIs, the National Center of Science and Technology Evaluation of **Kazakhstan**, the **Austrian** Science Fund (FWF), the **European Research Council** (ERC) and the **University of Copenhagen**.
- Invited participant at *The Future of Laboratory Studies in Atmospheric Chemistry Workshop*, organized by the International Global Atmospheric Chemistry project, Boulder, Colorado, USA, 17.06.2015-19.06.2015.
- Representative of the Finnish Association for Nature Conservation at the expert hearings by the Environment Committee of the Finnish Parliament concerning revisions of the legislation on ozone-depleting substances, 17.02.2009.
- Member of the thesis evaluation committees for Nergiz Öscan-Ketola (27.3.2015), Mikko Muuronen (22.5.2015) Richard Hatz (18.3.2016) and Carl-Mikael Suomivuori (2.3.2018).

## **12. Memberships and positions of trust in scientific societies**

- Member of the chemistry panel of the national publication forum (Julkaisufoorumi), 2018-
- Associate member of the IUPAC Physical and Biophysical Chemistry Division (1), 2016-
- Member of the delegation of the Finnish foundation for Aerosol Research, 2015-
- Member of the department council of the Chemistry Department, University of Helsinki, 2012-2017