

Kaarle Hämeri
CURRICULUM VITAE

1 Full names

Kaarle Juhani Hämeri

2 Date and place of birth

18th July 1964, Espoo, Finland

3 Current position

Professor, University of Helsinki, 2002–.

4 Education and training

University of Helsinki, Finland:
 1991 M. Sc.
 1995 Ph. D.
 1999 Doc.

5 Previous professional appointments

University of Helsinki:
 Assistant (total 48 months) 1991–1996.
 The Academy of Finland:
 Project researcher (total 12,5 months) 1991–1993.
 Post doc -researcher, University of Stockholm, 1996.
 Junior Fellow, The Academy of Finland, 1996–1998.
 Coordinator of Environmental Research, University of Helsinki, 1998–2000.
 Senior Fellow, Finnish Institute of Occupational Health, 2000–2002.

Lectured courses

on Energy and environment (Energia ja ympäristö) 1994
 Seminar on Urban Environment (Kaupunkiympäristö -seminaari) 1995
 Aerosol Measurement Technology (Aerosolien mittaustekniikka) 1997, 1999, 2002, 2004, 2006
 Environmental Science (Ympäristötiede, täydennyskoulutus) 1997-1998
 Environmental Science (Ympäristötiede, täydennyskoulutus, Head of the course) 1998-1999
 Summer school: Formation and transformation of atmospheric aerosols (part of the course), 1999, 2005
 Fine particles and their health effects (part of the course), 2000
 NORFA network: Atmospheric Aerosols, Formation and Transformation (part of the course), 2001
 Fine particles in occupational environments, 2003, 2005, 2007
 Aerosol Physics, 2003, 2005, 2007, 2009
 Health effects of fine particles, 2004
 Seminar on aerosol and environmental physics, 2003–2007
 Measurements of atmospheric aerosols: Aerosol physics, sampling and measurement techniques (intensive international course, Hyytiälä), 2004, 2006, 2007, 2008, 2009

Measurements of atmospheric aerosols: Aerosol physics, sampling and measurement techniques (intensive international course, Peking University, China), 2004, 2005

Measurements of atmospheric aerosols: Aerosol physics, sampling and measurement techniques (intensive international course organised by WMO, Schneefernerhaus (Zugspitze), Germany), 2006, 2008, 2009

Measurements of atmospheric aerosols: Aerosol physics, sampling and measurement techniques (intensive international course, University of Bahrain), 2007

6 Research awards, research honours and major stipendiary support

The Nessling Foundation Grant for scientific work 1988

The Wihuri Foundation Grant for scientific work 1992

The Wainstein Foundation Grant for scientific work 1994

The Academy of Sciences of the Czech Republic Exchange grant (total 3 weeks) 1994

The Academy of Sciences of the Czech Republic Exchange grant (total 1 week) 1995

The Austrian Academy of Science Exchange grant (total 2 weeks) 1995

The Academy of Finland Grant for scientific post doc -period abroad (total 12 months) 1995

Stockholm University Grant for a post doc -researcher (total 12 months) 1996

FAAR The Finnish Aerosol Award for experimental work in aerosol science, Hyytiälä 15.4.1997, The Finnish Association for Aerosol Research

Magnus Ehrnrooth Foundation Grant for scientific work 2000

Suomen tietokirjailijat Grant for educational material 2001

NOSA Aerosologist Award, the Nordic Society for Aerosol Research (NOSA), 2004

Suomen tietokirjailijat Grant for educational material 2004

Suomen tietokirjailijat Grant for educational material 2007

Suomen tietokirjailijat Grant for educational material 2008

Suomen tietokirjailijat Grant for educational material 2009

7 Editorial board membership

Report Series in Aerosol Science, 1989-1996, 1999-

Atmospheric Chemistry and Physics, guest editor (QUEST special issue), 2004-

Boreal Environment Research, guest editor, 2005

Atmospheric Chemistry and Physics, associate editor, 2007-

Atmospheric Research, associate editor, 2007-

8 Membership in scientific societies

European Aerosol Assembly

-President 2000-2002

The Finnish Association for Aerosol Research, 1988-

- General secretary 1989–1992
- Treasurer 1993–1994
- Board member 1993–1996, 2001–
- Vice president 1995, 2005–
- President 1997–2001 and 2007–
- The Nordic Society for Aerosol Research, 1988–
- Board member 1997–2003
- The Gesellschaft für Aerosolforschung, 1988–
- The Finnish Society for Environmental Sciences, 1991–
- The American Association for Aerosol Research, 1995–
- Board member 2005–2007
- The Finnish Physical Society, 1997–
- International Aerosol Research Assembly, 2002–
- General secretary, 2003–2006
- Vice president 2006–2010
- President 2010–

9 Other academic and professional activities

9.1 Referee for Scientific Journals

- Atmospheric Research, 1995, 1996, 1997, 2004, 2005 (10), 2007, 2008, 2009
- Journal of Geophysical Research, 1998, 2000, 2001, 2002, 2003, 2004, 2005 (2), 2006
- Report Series in Aerosol Science, 1998, 2004
- Atmospheric Environment, 1999, 2000, 2001, 2002, 2003, 2004, 2005 (2), 2006
- AIChE Journal, 2001
- Boreal Environment Research, 2001, 2009
- Journal of Aerosol Science, 2001, 2002, 2003, 2004, 2005, 2006
- Journal of Applied Physics, 2006
- Scandinavian Journal of Work, Environment and Health, 2001
- Geophysical Research Letters, 2002, 2003, 2004, 2007
- Journal of the Air & Waste Management Association, 2003, 2004, 2009
- Atmospheric Chemistry and Physics, 2003, 2004, 2005 (3), 2008
- Aerosol Science and Technology, 2003, 2005 (3), 2007 (2)
- Environmental Chemistry, 2005
- Environmental Science & Technology, 2005
- Water, Air, & Soil Pollution, 2007
- Facilities, 2008

9.2 Membership in funding agencies

- Member in The Swedish Research Council Formas, 2006–2008

9.3 Reviewer for proposals

- Estonian Science Foundation, 2006
- Czech Science Foundation
- National Environment Research Council, UK

9.4 Opponent in Doctoral Dissertations

20 April 2002, Kimmo Koistinen, University of Kuopio

8 April 2005, Joakim Pagels, Lund University

17 June 2005, Otto Hänninen, University of Kuopio

27 November 2009, Petri Tiitta, University of Kuopio

9.5 Opponent in Licentiate Dissertations

Degree of Filosofie Licentiat, Marian de Reus, Stockholm University, 1998, examiner

9.6 Referee for Academic Degrees

Degree of Ph. D., Aki Virkkula, University of Helsinki, 1999, pre-examiner

Degree of Ph. D., Heikki Lihavainen, University of Helsinki, 2000, pre-examiner

Degree of Docent, Kari Lehtinen, University of Helsinki, 2001, examiner

Degree of Docent, Risto Hillamo, University of Helsinki, 2002, examiner

Degree of Ph. D., Anu Kousa, University of Helsinki, 2002, pre-examiner

Degree of Ph. D., Marko Marjamäki, Tampere Technical University, 2003, pre-examiner

Degree of M.Sc., Johanna Nikula, University of Helsinki, 2003, examiner

Degree of Docent, Tuula Aalto, University of Helsinki, 2003, examiner

Degree of Ph. D., Ulrika Backman, University of Helsinki, 2005, pre-examiner

Degree of Ph. D., Sampo Ylätaalo, University of Helsinki, 2005, pre-examiner

Degree of Ph. D., Antti Hyvärinen, University of Helsinki, 2006, pre-examiner

Degree of Ph. D., Jyrki Ristimäki, Tampere Technical University, 2006, pre-examiner

Degree of Docent, Otto Hänninen, University of Kuopio, 2007, examiner

Degree of Ph. D., Ari Leskinen, University of Kuopio, 2007, pre-examiner

Degree of Docent, Mika Komppula, University of Kuopio, 2010, examiner

9.7 Guided Thesis

9.7.1 Doctoral Thesis

Minna Väkevä, 2002; Ismo K. Koponen, 2003; Pasi Aalto, 2004; Petteri Mönkkönen, 2005; Tareq Hussein, 2005; Tuukka Petäjä, 2006

9.7.2 M. Sc. Thesis

Eija Issakainen, 1992; Minna Väkevä, 1996; Suvi-Päivi Malvikko, 2000; Erik Herrmann, 2003; Tuukka Petäjä, 2004; Eija Vartiainen, 2005; Tero Lähde, 2005; Mikael Ehn, 2006; Anne Tamminen, 2007; Pauli Paasonen, 2008; Bjarke Molgaard, 2010

9.7.3 Licentiate Thesis

Suvi-Päivi Malvikko, 2004

9.8 Representative in International Associations

Finnish representative in European Aerosol Assembly, 1997–
 Finnish representative in International Aerosol Research Assembly, 1997–
 Member in Junge Award Committee (European Aerosol Assembly), 1999–2005
 Chairman of the TSI-Fissan-Pui award committee, 2006–

9.9 Other membership

FINE Pienhiukkasohjelma, Tekes, Johtoryhmä, 2003–2006
 Member in Palmenia, natural, bio and environmental science advisory board (Palmenian luonnon-, bio-, ja ympäristötieteiden täydennyskoulutusta edistävä neuvottelukunta), 2004–2007
 HY Henkilöstöpoliittinen ryhmä, 2007–
 Uudenmaan Nano-oske, johtoryhmä, 2007–
 Hiukkasfoorumi, johtoryhmä, 2007–
 Professoriliitto, Hallituksen jäsen, 2007–
 Professoriliitto, HY:n osaston pj, 2006–

9.10 Patents

Patent No: FI 116774 (Suomi-Finland), 28 February 2006

9.11 Major international presentations

Simulating the Formation of Acid Aerosols: Significance of Binary Nucleation, The Third International Aerosol Conference 1990, Kyoto
 A Flow Reactor Set Up for Irradiation Induced Particle Formation, NOSA Aerosolsymposium 1990, Gothenburg
 Homogeneous and Heterogeneous Nucleation of DBP Vapour in an Axial Flow Diffusion Chamber, The Fourth International Aerosol Conference 1994, Los Angeles
 Homogeneous Nucleation of DBP Vapour in a Laminar Flow Diffusion Chamber: The Carrier Gas Effect, European aerosol conference 1995, Helsinki
 Using tandem differential mobility analyser for studies of ultrafine particles: Laboratory and field experiments, The Annual Nordic Aerosol Symposium 1997, Gothenburg
 Hygroscopic properties of ammonium sulfate aerosol particles mixed with slightly soluble organic compound, International aerosol conference 1998, Edinburgh
 A comparison of the hygroscopic properties of aerosol particles in the marine boundary layer and the free troposphere - preliminary results from the ace-2 experiment, The Fifth International Aerosol Conference 1998, Edinburgh
 Science and culture in Sauna, Globe Learning Expedition 1998, Helsinki
 Hygroscopic properties of ultrafine inorganic salt particles, European aerosol conference 1999, Prague
 Ultrafine particle size distributions at Hyytiälä boreal forest site and at a coastal site in Mace Head, European aerosol conference 2000, Dublin
 Biogenic aerosol formation in the boreal forest, European aerosol conference 2000, Dublin
 Hygroscopic properties of ultrafine particles in coastal and forest environments, Nucleation and atmospheric aerosols 2000, Missouri-Rolla
 Gradients of fine aerosols in vertical displacement flow: a field study, European Aerosol Conference, 2001, Leipzig
 Deliquescence and hygroscopic properties of ultrafine particles, European Aerosol Conference, 2001, Leipzig
 Aerosol gradients in an industrial paint shop, The Annual Nordic Aerosol Symposium 2001,

Lund

Indirect evidence of organic compounds in nucleation mode particles over the boreal forest, The Sixth International Aerosol Conference 2002, Taipei

Use of pulse height analysis UCPC for determination of the composition of the new particles during nucleation bursts, NOSA aerosol symposium, 2002, Kjeller, Norway

Fine aerosols indoors and outdoors in downtown Helsinki, European Aerosol Conference 2003, Madrid

Aerosol Particle Number Concentrations in Five European Cities, International Conference on Nucleation and Atmospheric Aerosols, Kyoto 2004

Long term aerosol number concentration measurements in five European cities, European Aerosol Conference 2004, Budapest

Long term aerosol number concentration measurements in five European cities, AAAR Conference 2004, Atlanta, Georgia

Growth of atmospheric aerosol particles in water and ethanol vapours: effect of SO₂ oxidation, PM supersite and related studies conference 2005, Atlanta, Georgia

Aerosol properties in public transportation system in Helsinki, Annual AAAR Conference 2005, Austin, Texas

Aerosol properties in public transportation system in Helsinki, NOSA Aerosol Symposium 2005, Göteborg, Sverige

Facing the key workplace challenge: Assessing and preventing exposure to nanoparticles at source (Invited talk), European NanOSH Conference Nanotechnologies: A Critical Area in Occupational Safety and Health 2007, Helsinki, Finland

Facing the key workplace challenge: assessing and preventing exposure to nanoparticles (invited talk), 11th International Inhalation Symposium, June 11-14, 2008, Hannover, Germany

Facing the key workplace challenge: Assessing and preventing exposure to nanoparticles at source, European Aerosol Conference, 24-29 August 2008, Thessaloniki, Greece.

Facing the key workplace challenge: Assessing and preventing exposure to nanoparticles, NOSA Aerosol Symposium, 6-7 November 2008, Oslo, Norway.

Nanoaerosols: fundamentals and dynamics, 4th International Conference on Nanotechnology Occupational and Environmental Health, Helsinki, Finland, 2009

9.12 Principle investigator of the following scientific projects

Urban environment (Kaupunkiympäristö), 1995 and 1996, funded by the Faculty of science, University of Helsinki

Urban air (Kaupunki-ilma), 1996 and 1997, funded by the Nessling Foundation.

Atmospheric aerosols and environment, 1996–1998, funded by the Academy of Finland

Emissions from thermal insulations, 2001–2004, funded by the Academy of Finland

LIPIKA, 2002-2005, Funded by Technological Development centre of Finland (TEKES)

Condensation particle counter, 2003–2004, funded by Technological Development centre of Finland (TEKES)

HIPHI , 2003–2005, funded by Technological Development centre of Finland (TEKES)

Fine particle Exposure in public traffic, 2005–2006, Funded by The Finnish Work Environment Fund

HALVI, 2003–2005, funded by Technological Development centre of Finland (TEKES)

VALIDI, 2003–2005, funded by Technological Development centre of Finland (TEKES)

LIVA, 2005-2007, funded by the Finnish Work Environment Fund

NANOHEALTH, 2006–2010, Funded by the Academy of Finland

FAQ, Fine particle portal, 2008, Funded by the Finnish Work Environment Fund
Nanoturva, 2008–2010, funded by Technological Development centre of Finland (TEKES)
Nanodevice, 2009–2011, funded by EU
Ubi-casting, 2009–2011, funded by Tekes

9.13 Co-organizer of the following scientific conferences

Workshop on Condensation, Helsinki 7.–9.8.1991
NOSA and IV Finnish Aerosol Symposium, Helsinki 14.–15.11.1991
Meeting of researchers, The Finnish Association for Air Pollution Prevention, Tuusula, Finland, 27.–28.5.1993
V Finnish Aerosol Symposium, Helsinki 1.–3.6.1993
European Aerosol Conference, Chairman of the Local organizing committee, Helsinki, 18.–22.9.1995
International Conference on Nucleation and Atmospheric Aerosols, Helsinki, 26.–30.8.1996
VI Finnish National Aerosol Symposium, Conference Chairman, Hyytiälä 15.–16.4.1997
Globe Learning Expedition, Helsinki, 30.6.–4.7.1998
International Aerosol Conference, Edinburgh, 12.–18.9.1998
NOSA and VII Finnish National Aerosol Symposium, Conference Chairman, Helsinki 12.–13.11.1998
Seminar Celebrating the 60th Anniversary of Taisto Raunemaa, Conference Chairman, Kuopio 7.–8.12.1999
International Aerosol Conference, Taiwan, 2002
Czech-Finnish aerosol symposium, Prague, 23.–25.5.2002
European Aerosol Conference, Madrid, 2003
European Aerosol Conference, Budapest, 2004
Nanotechnology in Northern Europe, Helsinki, 2005

NOSA and X Finnish National Aerosol Symposium, Conference co-chairman, Helsinki 8.–10.11.2006
European NanOSH Conference Nanotechnologies: A Critical Area in Occupational Safety and Health, 35 December 2007, Helsinki, Finland
4th International Conference on Nanotechnology Occupational and Environmental Health, Helsinki, Finland, 2009
International Aerosol Conference 2010, Helsinki, Finland

9.14 Co-organizer of the following scientific networks

Member of European working group of "Atmospheric Aerosols", 1993–
Member of European working group of "Basic Aerosol Science", 1993–