

## CURRICULUM VITAE

### 1 Full name and date

- Ikkala, Olli Tapio
- Male
- Date of the CV: April 13, 2015
- ResearcherID K-7447-2012



### 2 Date and place of birth, nationality, current residence

- August 15, 1953, Helsinki
- Finnish
- Residence: Helsinki
- Contact details: Aalto University, Department of Applied Physics, Laboratory of Molecular Materials, FIN-00076, Espoo, Finland, Tel: +358 50 4100454 (switchboard +358 9 47001), Fax: +358 9 4702 3155, Email: Olli.Ikkala@aalto.fi, <http://physics.aalto.fi/groups/molmat/>

### 3 Education and degrees awarded

- Doctor of Technology, Helsinki University of Technology, Department of Technical Physics, materials physics (low temperature physics), 1983.
- Master of Science, Helsinki University of Technology, Department of Technical Physics, materials physics (low temperature physics), 1977.
- Docent, University of Helsinki, Department of Chemistry, polymer chemistry, 1998.

### 4 Other education and training, qualifications and skills

- Studies of classical music in Sibelius Academy

### 5 Languages

- Mother tongue: Finnish
- English: fluent; Swedish and German: intermediate; French: elementary.

### 6 Current position

- Academy professor, Aalto University, Department of Applied Physics, Molecular materials, P.O. Box 15100, FIN-00076 Aalto, Espoo, Finland, 2012-2016.
- Part time visiting professor at Université Joseph Fourier/Centre de Recherches sur les Macromolécules Végétales/CEA –collaboration in Grenoble, France, 2015-2017.

### 7 Previous work experience

- Professor of polymer physics and molecular nanostructures, Aalto University, Department of Applied Physics, Espoo, Finland, 2010-2012 and 2016-.
- Visiting Professor at ESPCI ParisTech (The Michelin Materials Science Chair, <http://chairemichelin.espci.fr/International/>), December 2013 (one month).
- Academy professor of Academy of Finland, 2005 – 2010.
- Visiting scientist at CEA-Grenoble, Département de Recherche Fondamentale sur la Matière Condensée, Structures et Propriétés d'Architectures Moléculaires, Laboratoire d'Electronique Moléculaire, Organique et Hybrid, Grenoble, France, August 2007-February 2008.

- Professor of polymer physics and molecular nanostructures, Helsinki University of Technology, Department of Engineering Physics, Espoo, Finland, 1999- 2005.
- Research group leader, Helsinki University of Technology, Department of Engineering Physics, Espoo, Finland, 1994 – 1999.
- Senior researcher, Neste Ltd, Finland (Conducting polymers and polymer blends, collaboration with Uniax Corporation, Santa Barbara, USA), 1990-1994.
- Researcher, Neste Ltd, Finland (Electrochemistry of energy storage), 1984-1989.
- Researcher, Helsinki University of Technology, Low Temperature Laboratory, 1983-1984.
- Military service, rank lieutenant, 1982-1983.
- Research assistant, Helsinki University of Technology, Low Temperature Laboratory, 1975-1982.

## 8 Research funding, leadership and supervision

- Partner in “Nanoscaffolds for Breast Cancer Explants”, seed funding from Biocentrum Helsinki, 2015-2016.
- Principal Investigator of Center of Excellency of Academy of Finland: “Molecular Engineering of Biosynthetic Hybrid Materials Research”, 2014-2019.
- Principal Investigator of ERA Net Woodwisdom, 2012-2014.
- Personal grant ERC Advanced Grant “MIMEFUN”, 2012-2016.
- Academy professor of Academy of Finland, 2012-2016.
- Partner in Finnish Funding Agency for Technology and Innovation: “NaMiCo”, 2010-2012.
- Partner in Finnish Funding Agency for Technology and Innovation: “Newlub”, 2009-2012.
- Partner in Finnish Nanocellulose Center, 2008-2013.
- Partner in ERA-NET project “DesignCell”, 2008-2011.
- Partner in EU project “SustainComp”, 2008-2011.
- Partner in Marie-Curie Network “Polyamphi”, 2005-2008.
- Partner in Finnish Funding Agency for Technology and Innovation: Fullerene-based memories (“NAMU”), 2005-2008.
- Partner in Finnish Funding Agency for Technology and Innovation: Surface Functionalization (“KEPPI”), 2004-2005.
- Partner in Finnish Funding Agency for Technology and Innovation/Vinnova: “Nanostructured Cellulose Products”, 2004-2007.
- Partner in EU 6th Framework: Functional membranes (“COMPOSE”), 2004-2007.
- Partner in Marie-Curie Network “Biopolysurf”, 2004-2007.
- Partner in European Science Foundation: Functional Nanostructures (“SISAM”), 2004-2007.
- Partner in Finnish Funding Agency for Technology and Innovation: Functional Paper (“PAFU”), 2002-2005.
- Partner in Finnish Funding Agency for Technology and Innovation: “Self-Organization in Molecular Electronics and Photonics, 2002-2005.
- Partner in Academy of Finland Center of Excellence “Bio- and Nanopolymers”, 2002-2007.
- Partner in Finnish Funding Agency for Technology and Innovation: “Plastic Electronics MUOELE”, 2000-2003.
- Principal Investigator in Finnish Funding Agency for Technology and Innovation: “Functional Polymer Structures”, 2000-2003.
- Principal Investigator in Finnish Funding Agency for Technology and Innovation: “Structure and solubility of polyaniline”, 1998-2001.
- Principal Investigator in Finnish Funding Agency for Technology and Innovation: “Novel Self-Organized Polymer Structures”, 1997-1999.
- Principal Investigator in Grant from Neste Foundation, 1994-1998.

- Principal Investigator in Grant from Neste Foundation, 1994.
- Principal Investigator in Finnish Funding Agency for Technology and Innovation: “Polymer Physics”, 1995-1996.
- Principal Investigator in Academy of Finland: “Polymer physics”, 1995-1997.
- Supervized 21 PhD Theses and co-supervised 1 PhD Thesis. Several M.Sc. Theses.

## 9 Merits in teaching and pedagogical competence

- Lecturing of statistical physics, biophysics, polymer physics, and nanotechnology for physicists, chemists, and pharmacologists.
- Relevant role when chemistry and multidisciplinary materials science-related teaching was restructured at Department of Applied Physics at Helsinki University of Technology.

## 10 Awards, prizes and honours

- Recipient of ERC Advanced Grant, second term of academy professorship, and CoE.
- Titular IUPAC Lecture, Université de Montreal, 2012
- Titular Aggarwal Lecture, Cornell University, 2008.
- Michelin visiting professor, ESPCI/Paris Tech, December 2013.
- Fellow of the Finnish Physical Society
- Emmanuel Merck Award, 2002

## 11 Other scientific or academic merits

- Panel member in funding organizations: ERC Consolidated Grant (PE5) panel chairman 2015, ERC Consolidated Grant (PE5) panel member 2014, UNIK (Danish Centers of Excellence) 2008-2014, Engineering and Physical Sciences Research Council (UK) to evaluate UK materials science 2008.
- Evaluation of funding proposals: ERC Starting Grant and Consolidated Grant (2014), Nordic Academy for Advanced Study (Norway), Technology and Innovation (Denmark), Leverhulme Foundation (UK), Council for Chemical Sciences (the Netherlands), Academy of Finland (Finland).
- Advisory Board, European Commission, 6th Framework program (Thematic topic Priority 3 Nanotechnology), 2002-2005.
- Membership of boards of national funding agencies: Emil Aaltonen Foundation, Instrumentarium Science Foundation.
- Board of Reviewing Editors: *Science* (AAAS, USA) 2006-2009.
- Member of Finnish Academy of Science and Letters.
- Member of Technology Academy Finland.
- Invited and keynote lectures abroad: > 100.
- Thesis opponent abroad: in UK, The Netherlands, Norway, and Sweden.
- Evaluation of academic positions for Cornell University (USA), University of Ghent (Belgium), Linköping University (Sweden).
- Referee of several journals.

## 12 Societal impact of research

- Finnish Physical Society: Vice President 1999-2000, President 2000-2003.
- Director of Center for New Materials, Helsinki University of Technology, Espoo, Finland, 2002-2005. Scientific director 2005-2011.

- Advisory board: VTT Processes (State Research Centre of Finland) 2004.
- At earlier research career 10 years in industry (1984-1994). During the academic career, extensive collaboration with industry: NOKIA, UPM, M-Real, Teknos-Winter, Panipol(SME). New collaborations with SME´s starting.
- Approximately 20 patents. Has performed as a scientist in court processes in Europe and USA.
- One of the initiators of Finnish Center for Nanocellulose Products (Helsinki University of Technology, VTT and UPM collaboration, 2003-2013).
- Several times in TV and radio in popular science programs explaining nanoscience for general public.
- One of the organizers of Science Days in Helsinki (2011) and Technology Days in Espoo (2012) intended for general public.

### **13 Positions of trust in society and other societal merits**

- Recipient of the Order of the White Rose of Finland, Knight of First Class from President of Finland, 2010.
- Member of a board to plan national strengths in materials science (part of national strategy planning FinnSight 2015), as set by Academy of Finland and Finnish Funding Agency for Technology and Innovation, 2005-2006.
- Board member of Helsinki-Nano –program (Finland), 2004-2005.
- Lieutenant in reserve.

### **14 Other merits**

- Based on ResearcherID K-7447-2012: 357 entries, 11082 citations, H-index 61.
- 8 articles in *Science* and *Nature*-family.