

Curriculum Vitae

2021-12

Name: Lennart Bergström
Date of birth: 1959-12-11
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A. EDUCATION

1984	M.Sc.	Chemical Engineering, KTH, Stockholm, Sweden
1992	Ph.D.	Physical Chemistry, KTH, Stockholm, Sweden
1991	Visiting scientist	Department of Material Science and Engineering, University of Washington, Seattle, USA
1994	Post-doctoral associate	Department for Inorganic Materials, Tokyo Institute of Technology, Tokyo, Japan
1995	Docent	Ceramic Technology, KTH, Stockholm, Sweden

B. APPOINTMENTS

2004-	Professor of Materials Chemistry, Department of Materials and Environmental Chemistry, Stockholm University, Sweden
2002–2004	Director, The Brinell Centre-Inorganic Interfacial Engineering, KTH, Sweden
1999–2004	Section manager, Institute for Surface Chemistry, Stockholm, Sweden
1994-1999	Deputy section manager– Institute for Surface Chemistry, Stockholm, Sweden
1992-1994	Area manager, Inorganic materials and concentrated suspensions– Institute for Surface Chemistry, Stockholm, Sweden

C. GRADUATED PHD STUDENTS AND POSTDOCTORAL FELLOWS:

Graduated PhD students with current positions:

H. Guldberg-Pedersen, 1998; Vice president, Haldor Topsoe A/S, Denmark
Peter H.F. Hansen, 2000; Senior Researcher, RISE, Sweden
Eric Laarz, 2000; Germany
Anders Meurk, 2000; Quality specialist and team leader quality engineering, Scania Group, Sweden
Karin M. Andersson, 2004; R&D Manager performance testing, Sandvik Coromant AB, Sweden
Pär Wedin, 2004; Staff Researcher, Nynäs AB, Sweden
Petr Vasiliev, 2009; CEO, Neonest AB, Sweden
Jovice B-S. Ng, 2009; Research Director, Saab-Singapore Pte Ltd, Singapore
Linnéa Andersson, 2011; Materials and reliability engineer, HP Inc., Corvallis, OR, USA
Christian Mille, 2013; Project Manager, ABB, Sweden
Bertrand Faure, 2013; Project Manager, XENOCS, Grenoble, France
Erik Wetterskog 2013; Pedagogic developer in technology and physics, Vetenskapens Hus, Sweden
Neda Keshavarzi, 2014; Dubai
Arto Ojuva, 2015; Head of Laboratory, ColloidTech Oy, Tampere, Finland
Christina Schütz 2015; Project Manager, ChemStream, Antwerp, Belgium
Arnaud Mayence 2016; Principal Scientist, Catalent Pharma Solutions, Belgium
Michael Agthe 2016; Researcher, University of Hamburg, Germany
Yingxin Liu 2018; Scientist, SABIC, Netherlands
Korneliya Gordeyeva 2018; Postdoc, KTH, Sweden
Martin Kapuscinski 2020; Postdoc, Uppsala University, Sweden
Konstantin Kriechbaum 2020; Development engineer, TetraPak AB, Sweden
Pierre Munier 2021; Process engineer, RenFuel AB, Sweden
Varvara Apostolopoulou-Kalkavoura 2021; Postdoc, Stockholm University
Current students: Ehsan Seyed Hadi (2019-); Carina Schiele (2020-); Agnes Åhl (2021-)

Post-doctoral fellows with current positions:

Professors:

Farid Akhtar (2009-2014), Prof., Materials Technology, Luleå University of technology, Sweden
German Salazar-Alvarez (2009-2010), Assoc. Prof. Solid State Physics, Uppsala University, Sweden
Jens Weber (2008-2009), Prof., Hochschule Zittau/Görlitz, Germany
Nathalie Lavoine (2016-2018), Assist. Prof., Forest Biomaterials, North Carolina State University, USA
Motoyuki Iijima (2011), Assoc. Prof., Yokohama National University, Japan
Takamasa Mori (2011), Prof., Hosei University, Japan
Jing Sun (2000-2001), Prof., Shanghai Institute of Ceramics, Shanghai, China.
Satoshi Tanaka (2007-2008), Assoc. Prof., Nagaoka University of Technology, Nagaoka, Japan.
Nozomu Uchida (1996-1997), Assoc. Prof., Nagaoka University of Technology, Japan.
Dong Wang (2011-2012), Assoc. Prof., Northeast Electrical Power University, Jilin, China.

Other positions:

Anwar Ahniyaz (2005-2007), Senior Scientist, RISE, Sweden.
Nelson Bell (1998), Staff scientist, Sandia National Labs, Albuquerque, USA.
Marta Estrader Bofarull (2011-2012), Researcher. University of Barcelona, Barcelona, Spain
Tamara Church (2019-2021), Scientist, Canbrex Karlskoga AB, Sweden
Andreas Fall (2014-2015), Senior Research Associate, RISE Bioeconomy, Sweden
Richard Greenwood (1995-1996), Industrial Tutor, Birmingham University; Birmingham, UK.
Robert Hodgkins (2005-2007), Science Specialist, Aramco, Saudi Arabia
Yuji Hotta (2001-2002), Research Scientist, Ceramic Research Institute, AIST, Japan.
Mukta Limaye (2011-2012), INSPIRE Faculty, Indian Institute of Science, Bhopal, India
Ranjith Krishna Pai (2007-2009), Principal Scientific Officer, Ministry of Science & Technology, India.
Peter Lipowski, Project leader, Siemens, München, Germany
Zhong-Peng Lyu (2017-2019), Postdoc, Aalto University, Helsinki, Finland
Julien Navarro (2013-2015), Researcher, University of Hamburg, Germany
Vitaliy Olinyk (2009-2010), Technical specialist, JPK Instruments, Berlin, Germany
Dilshod Shakarova (2013-2014), Researcher, Tashkent State Technical University, Uzbekistan
Daniela Stoeckel (2015-2016), Germany
Brian Sundlof (1997-1998), Manager Semiconductor Packaging Develop., IBM Systems Group, USA.
Subhasis Rana (2007-2008), Fellow scientist, Central Glass and Ceramic Research Institute, India
Kimiyasu Sato (2008-2009), Senior Research Scientist, Structural Materials Research Institute, Japan
Hugo Voisin (2016-2018), Postdoc, France
Bernd Wicklein (2012-2014), Researcher, ICM-CSI, Madrid, Spain
Joseph Yanez (1997-1999), Senior manager operations, Accenture, Chicago, USA.
Boris Zhmud (1998-2000), CTO Applied Nano Surfaces AB, Sweden.

D. FELLOWSHIPS, AWARDS AND PRIZES

1992; Sandvik Coromant Material Prize.
 1994; Akzo Nobel Surface Chemistry Nordic Science Prize
 2007; Jacob Wallenberg Materials Award
 2008; Stockholm Innovation Prize
 2009; Fellow of the Royal Society of Chemistry
 2011; Humboldt research award (Forschungspreis)
 2013; Fellow of the European Ceramic Society
 2013; Fellow of the American Ceramic Society
 2013; Royal Swedish Academy of Engineering Sciences (IVA)
 2014; World Academy of Ceramics
 2014; Chinese Academy of Sciences visiting professor (Hefei University)
 2015; The Norblad-Ekstrand medal from the Swedish Chemical Society

E. COMMISSIONS OF TRUST

Scientific Journals:

J. American Ceramic Society,	Associated editor 1997-2001
J. Colloid Interface Science,	Advisory board member, 2004-2006
Sci. Tech. Advanced Materials,	Associated editor 2005-
Nanoscale	Advisory board member: 2009-2016
J. Materials Research	Principal editor 2012-2017
Ceramics International	Editor-in-Chief, 2014-2016

Other:

Member of the Council for Science and Technology (NT-rådet) (2019-): Swedish Research Council (Vetenskapsrådet)
Dean of Chemistry (2014-2018): Faculty of Science, Stockholm University
Chairman of the board (2011-2015): section "Surface and Materials Chemistry", of the Swedish Chemical Society
University Reference Group, Max IV (2016-2018)
PI/Reference group SwedNESS (2016-)
Member of evaluation committees: Swedish Research Council (VR); Norwegian Research Council, Academy of Finland, Swiss Research Council; National Science Foundation (US)
Expert committee (sakkunnig): for professor positions in Sweden, Finland, Switzerland, and Germany.

F. NETWORKS IN ACADEMIA

Markus Antonietti, Max Planck Institute for Colloids and Interfaces, Golm, Germany (nanomaterials)
 Junishiro Shiomi, University of Tokyo (heat transfer)
 Lars Wågberg, Lars Berglund, Dept. of Fibres and Polymers, KTH (nanocellulose composites)
 Helmut Cölfen and Denis Gebauer, University of Konstanz (crystallisation, calcium carbonate)
 Giovanni Camino and Federico Carosio, Polytechnico Turino (flame retardancy)
 Jan Lagerwall, University of Luxembourg (liquid crystals, assembly)

G. ENTREPRENEURIAL ACHIEVEMENTS

Four inventions have resulted in patents that have been sold to industry. Spin-out company NeoZeo AB established in 2010. Spin-out company Cellutech AB established in 2013, sold to StoraEnso in 2018.

H. RESEARCH ACTIVITIES

Self-assembly of nanoparticles and novel process routes for nanocrystals and biobased colloids to form novel nanostructured materials with useful properties are at the core of our activities where the fundamental activities aim to generate a better understanding of the molecular or mesoscopic assembly mechanisms. Biomimetic synthesis which involves the integration, directed assembly and controlled crystallization of inorganic materials with biomolecules is another closely related field of interest. More than 220 publications, 1 book, 9 patents and more than 70 invited or key-note presentations. Cited 15000+ times and h-index is 65 (Google Scholar).

Selected publications:

1. **L. Bergström**, "Hamaker Constants of Inorganic Materials", *Adv. Colloid Interface Sci.*, 70, 125-169 (1997).
2. V. Apostolopoulou-Kalkavoura, P. Munier, **L. Bergström**, "Thermally Insulating Nanocellulose-Based Materials", *Advanced Materials*, (2020)
3. J P. F. Lagerwall, C Schütz, M Salajkova, J Noh, J H Park, G Scalia, and **L Bergström**, "Cellulose nanocrystal-based materials: from liquid crystal self-assembly and glass formation to multifunctional thin films", *NPG Asia Materials*, 6, e80 (2014)
4. M. Kapuscinski, M. Agthe, Z-P Lv, Y. Liu, M. Segad, **L. Bergström**, "Temporal Evolution of Superlattice Contraction and Defect-Induced Strain Anisotropy in Mesocrystals during nanocube Self-Assembly", *ACS Nano* 14 (5), 5337-5347 (2020)
5. B Wicklein, A Kocjan, G Salazar-Alvarez, F Carosio, G Camino, M Antonietti, **L Bergström**, "Thermally insulating and fire-retardant lightweight anisotropic foams based on nanocellulose and graphene oxide", *Nature Nanotechnology*, 10, 277-283 (2015)
6. I Usov, G Nyström, J Adamcik, S Handschin, C Schütz, A Fall, **L Bergström**, R Mezzenga, "Understanding nanocellulose chirality and structure-properties relationships at the single fibril level", *Nature Communications*, 6, 7564 (2015)
7. B Wicklein, D Kocjan, F Carosio, G Camino, **L Bergström**, "Tuning the nanocellulose-borate interaction to achieve highly flame retardant materials" *Chemistry of Materials*, 28, 1985-1989 (2016)
8. M Agthe, T S. Plivelic, A Labrador, **L Bergström**, G Salazar-Alvarez, "Following in real-time the two-step assembly of nanoparticles into mesocrystals in levitating drops", *Nano Letters*, 16, 6838-6843 (2016)
9. Y Liu, S-H Yu, L Bergström, "Transparent and flexible nacre-like hybrid films of aminoclays and carboxylated cellulose nanofibrils", *Advanced Functional Materials* 28, 1703277 (2017)