CURRICULUM VITAE – Ludvig de Knoop 

Born in Göteborg 1972-03-20

Experience

Undergraduate Studies	Teknisk Fysik, Chalmers University of Technology, Göteborg, Sweden. 2000-2005. Diploma work: *Investigation of Iron Filled Multiwalled Carbon Nanotubes*. Supervisors: Prof. Eva Olsson and Dr. Krister Svensson
Product Development Manager	Nanofactory Instruments AB, Göteborg, Sweden. 2005-2007. Development of TEM-NanoIndenter holder.
Vice President of Sales	Nanofactory Instruments AB. 2007-2010, Sales, installations and demos of *in situ* TEM holders in Europe, Middle-East, Russia and India.
Post Graduate Studies	CEMES-CNRS, Toulouse, France. 2010-2013. Doctoral Thesis: *Development of Quantitative In Situ Transmission Electron Microscopy for Nanoindentation and Cold-Field Emission*. Supervisors: Dr. Martin Hÿtch and Dr. Marc Legros. Received highest grade.
Postdoctorial fellowship	1. CEMES-CNRS, Toulouse, France. 2014. 2. Chalmers University of Technology, Department of Applied Physics, Göteborg, Sweden. 2015 – present.

Conference presentations, Teacher and Organizer

- Over 10 presentations at international conferences, with 2 invited and 1 plenary
- Teacher at QEM2013, a TEM school for 100 students
- Organizer of several workshops in 2008, 2009, 2014 and 2015

Publications and Reviewer

- 7 publications in peer-reviewed journals e.g. Ultramicroscopy, Micron, Scripta Materialia, Applied Physics Letter.
- Reviewer of articles in Micron and Ultramicroscopy

Supervision of students

- Ren Qui, Undergraduate Student, working with electrochemical etching of Au nano-sized tips. 2016.

Examples of honours

- "Félicitations orales du jury" for PhD-thesis, which is intended for the top 5% theses.
- 3 Grants and Scholarships in 2016.

Research Area

I have for over 10 years been working with *in situ* transmission electron microscopy. This technique allows for studying material at the atomic level while it is being subjected to external stimuli like bias, current, light or force. The ability to both visually observe what happens to a sample and simultaneously obtain e.g. electrical responses due to the applied stimulus, provides direct and dynamic information on the workings of a material. Such information offers valuable insight in how a material can be tailored to desired properties. More specifically, areas of research covers electron cold-field emission from C and Au nanotips, nanoindentation of Al thin films, electron holography and finite element method modeling.