

Curriculum vitae

Prof. Dr. Ir. Gertjan Koster

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<http://www-k9.ijs.si/about-us/external-consultants/prof-gertjan-koster>

- (1995) *Master's* ('Doctoraal') University of Twente, Enschede, The Netherlands
Title Thesis: "*De geldigheid van verfijningsmodellen in de kristallografie*" ("*The validity of refinement models used in crystallography*"), advisor Prof. Dr. D. Feil
- (1999) *Doctorate* University of Twente, Enschede, The Netherlands
Title Thesis: "*Artificially layered oxides by pulsed laser deposition*" advisor Prof. Dr. H. Rogalla
- 2019-** *Full Professor* 'Physics of Inorganic nanomaterials', Faculty of Science and Technology, University of Twente.

Biography

In 1999 Prof. Dr. Ir. G. (Gertjan) Koster did his PhD on "Artificial layered complex oxides by pulsed laser deposition". In that same year, he moved to the US to join the Kapitullnik-Geballe-Beasley (KGB) group at the Geballe Laboratory for Advanced Materials, Stanford University. In 2007, he joined the Inorganic Materials Science group, MESA+ institute for nanotechnology, University of Twente, where since December 2019 he has been full professor. In 2014 he was a visiting professor at QMI-UBC in Vancouver and since 2018 he is a visiting professor of advanced materials department K9 at the Joseph Stephan Institute in Slovenia. His research focuses on the structure-property relation of atomically engineered complex (nano)materials, especially thin film ceramic oxides. For the thin film synthesis, he developed the first time-resolved RHEED-system, operating at high pressures up to 100 Pa during pulsed laser deposition. Current research includes the growth and study of artificial materials, the physics of reduced scale (nanoscale) materials, metal-insulator transitions and in situ spectroscopic characterization. Application areas are functional materials for green ICT, neuromorphic computing, integration of oxides with CMOS, model systems for operando studies of oxide interfaces using X-ray spectroscopies or STEM-EELS (e.g., batteries, catalysis).

Other experience:

- 2018-** *Associate professor*, Jožef Stefan International Postgraduate School, Ljubljana
- 2018-** *Visiting professor*, Advanced Materials Department K9, JSI
- (2014) *Visiting professor* QMI, UBC, Vancouver.
- (2014)-(2019) *Professor* University of Twente
- (2007-2014) *Assoc./Ass. professor* (UHD/UD), Inorganic Materials Science, TNW, UT.
- (2006-2007) *Lecturer and senior scientist*, Geballe Lab. for Adv. Materials, Stanford University
- (2005-2007) *Lab director* Surface Science Laboratory, Stanford Nano-characterization Laboratory
- (1999-2006) *Visiting scholar/Research associate*, Stanford University and UT.
- (1999) *Post Doc*, Low Temperature Division, Dept. of Applied Physics, UT.

Activities:

- Member educational leader advisory board TeACHER+ at UT
- Member NWO-ENW working groups 'Fundamentals& Methods of Chemistry' and 'Chemistry of materials'
- Member board 4TU Materials; Regional contact [NEMI \(Netherlands Electron Microscopy Infrastructure\)](#)
- Principal designer and coordinator Master specialization TNW/ET-'Materials Science and Engineering'
- COST-action 'TO-BE' WG-2 leader (Thin films); MC Netherlands
- Referee (NWO, NSF, Nature, American Phys. Soc., American Chem. Soc., Elsevier, Wiley etc.)
- Organizer conferences (e.g., MRS, COST, Ameland workshop, QMI Workshop, Electroceramics, WOE)
- Chair and vice-chair Faculty council TNW, University of Twente (2010-2015)

Training:

- FOM management training, Nijenrode University, 1999 (40 hr.).
- 'Basiskwalificatie onderwijs' (BKO, basic educational qualification), University of Twente 2011 (250 hr.).
- 'Academisch Leiderschap' (academic leadership), University of Twente (2014),
- 'Leergang Onderwijskundig Leiderschap'(educational leadership training), University of Utrecht (2016-2017)

Scholarships and prizes:

- (2001) NWO TALENT stipend, (Netherlands Organization for Scientific Research; equiv. to Rubicon)
- (2002) VENI scholarship, Netherlands Organization for Scientific Research NWO-STW
- (2012) Educational prize 'Advanced Technology', University of Twente
- (2019) Van Gogh Scholarship (Nuffic) exchange with CNRS Thales (Prof. Manuel Bibes)