

Prof. Jens Kreisel

Vice-rector for Research

Jens.Kreisel@uni.lu

Academic Qualifications

12/2004	Habilitation (<i>HDR</i>)	Grenoble INP (F)
04/1999	Ph.D. Physics (<i>Docteur ès Sciences</i>)	Grenoble INP (F)
03/1996	M.Sc. Physics (<i>Dipl.-Physiker</i>)	Universität Karlsruhe (D), now KIT
08/1995	M.Sc. Materials Science (<i>DEA</i>)	Grenoble INP (F)

Current Position

Since 09/2018 **University of Luxembourg**

Vice-rector for Research

Full Professor in Physics & Materials Science

FNR Pearl Chair in Functional Materials

As the Vice-rector for research, JK is responsible for the University's research vision, strategy and agenda. Key responsibilities include doctoral education and the reinforcing of interdisciplinary and innovation initiatives. He represents the University in national and international committees and establishes relations to relevant public and industry players.

Past Positions

2012 - 2018 **Director of Department**

2014-2018 Luxembourg Institute of Science and Technology (LIST)
Department Materials Research and Technology (MRT)

2012-2014 Centre de Recherche Gabriel Lippmann (CRP-GL)
Département Science et Analyse des Matériaux (SAM)

University of Luxembourg

2017-2018 **Adjunct Professor in Physics & Materials Science**

2013-2016 **Honorary Professor in Materials Science**

2011-2012 **Warwick University, Department of Physics, UK**

Sabbatical leave

Fellow of the Institute of Advanced Studies (IAS)

2000-2012 **Centre National de Recherche Scientifique (CNRS), Grenoble, F**

Laboratoire des Matériaux et du Génie Physique (UMR CNRS- Grenoble INP)

2000-2004 **Researcher**

2004-2009 **Senior Researcher**

since 2009 **Director of Research** (leave of absence since 2012)

- 2002-2011** **Institut Polytechnique de Grenoble (Grenoble INP), F**
 2002-2006 **Head of International Relations**, Phelma-Grenoble INP
 2006-2008 **Advisor to the President**, Representative for *CLUSTER* network
 2008-2011 **Deputy Vice-President**, International Relations
- 1999-2000** **University of Oxford, Clarendon Laboratory, UK**
Post-doctoral Research Fellow
- 1996-1999** **Institut Polytechnique de Grenoble (Grenoble INP), F**
PhD Candidate

Awards

- 2017** **Fellow** of the **European Academy of Sciences**
- 2013** **PEARL “Excellence Award for Research in Luxembourg” (L)**
 Research Funds of 5 M€ awarded by the Fonds National de la Recherche (FNR)
- 2011** **Invited Fellow of the Institute of Advanced Studies (IAS)**, Warwick University (UK)
 Award to promote Warwick’s international profile as a centre of scholarly excellence
- 2010** **Prime d’Excellence Scientifique** of the CNRS - France
- 2005** **Médaille de Bronze** of the CNRS - France
 Awarded for the best work in Solid State Chemistry by a young scientist in France
- 2001** **Physical Crystallography Award of the Institute of Physics (GB)**
 Awarded for the best published work by a young scientist in Physical Crystallography
- 2000** **Ph.D. Prize of Grenoble INP (F)**
 Awarded for the best Ph.D. thesis in Materials Science
- 1996** **Prix Franco-Allemand of the Universität Karlsruhe (D)**
 Awarded for the best MSc Diploma in Materials Physics

Languages

German	Mother Tongue
French	Bilingual
English	Bilingual
Luxembourgish	Understanding: Good, Speaking: Beginner

Selected Services to the research community

- Since 2003 Editor-in-Chief, International journal “Phase Transitions”, published by Taylor & Francis
- 2006-2014 National Research Council of the French CNRS, Chemistry Department
- 2013-2016 Project & career advancement committee, Fonds de la Recherche Scientifique, Belgium
- Since 2013 Board of Trustees, Leibnitz Institute for New Materials (INM), Saarbrücken, D

Referee for research agencies ANR (F), FNRS (B), DFG (D), SNF (CH), NSF (USA), H2020/ERC etc.

Referee for academic journals Nature publishing group, American Physical Society publishing group etc.

Organizer/co-organizer of international conferences, workshops, schools and symposia

Research track record

JK's research interest lies in Physics and Materials Sciences, with a particular interest in how different physical properties interact in functional materials and how such functionalities can be translated into technology. His research work has been recognized by several awards, is characterised by a significant external funding and has led to the below track record.

Publications	> 150	PhDs supervisions	16	Invited conferences	> 70
H-index	50 (Google Scholar)	Post-Doc supervisions	7	External funding	> 8 Mio€

Representative Overview & Viewpoint articles

- GF Nataf, M Guennou, JM Gregg, D Meier, J Hlinka, EKH Salje, [J Kreisel](#)
Domain-wall engineering and topological defects in ferroelectrics and ferroelastics *Nature Rev. Phys.* **2**, 634 (2020)
- S. Catalano, M. Gibert, J. Fowlie, J. Íñiguez, J.-M. Triscone, [J. Kreisel](#)
Review: Rare-Earth Nickelates RNiO₃: Thin films and heterostructures *Rep. Progr. Phys.* **81**, 46501 (2018)
- C. Paillard, X. Bai, I. C. Infante, M. Guennou, M. Alexe, [J. Kreisel](#), B. Dkhil
Review: Photovoltaic with Ferroelectrics: Current Status and Beyond *Adv. Materials* **28**, 5153 (2016)
- [J. Kreisel](#), L. Wirtz, M. Schiltz
Materials Science in Luxembourg *Nature Materials* **13**, 219 (2014)
- [J. Kreisel](#), M. Alexe, P.A. Thomas
A photoferroelectric material is more than the sum of its parts *Nature Materials* **11**, 260 (2012)

Selected papers of past 8 years

(the full list can be consulted on [Google Scholar](#))

- [J. Kreisel](#), M.C. Weber, N. Dix, F. Sánchez, P.A. Thomas, J. Fontcuberta
Probing layers in oxide multilayers by wavelength-dependent Raman scattering. *Adv. Funct. Mat.* **22**, 5044 (2012)
- D.S. Keeble, E.R. Barney, D.A. Keen, M.G. Tucker, [J. Kreisel](#), and P.A. Thomas
Bifurcated Polarization Rotation in Bismuth-Based Piezoelectrics *Adv. Funct. Mat.* **23**, 185 (2013)
- M. Guennou, P. Bouvier, P. Toulemonde, C. Darie, C. Goujon, P. Bordet, [J. Kreisel](#)
Jahn-Teller, Polarity, Insulator-to-Metal Transition in BiMnO₃ under Pressure. *Phys. Rev. Lett.* **112**, 75501 (2014)
- J. Fowlie, M. Gibert, G. Tieri, A. Gloter, S. Catalano, S. Gariglio, A. Schober, M. Guennou, [J. Kreisel](#), J.-M. Triscone
Conductivity and local structure of LaNiO₃ thin films. *Adv. Materials* **29**, 1605197 (2017)
- S. Nadupalli, [J. Kreisel](#), T. Granzow
Increasing bulk photovoltaic current by strain tuning. *Science Adv.* **5**, eaau9199 (2019)
- A. Schober, J. Fowlie, M. Guennou, M.C. Weber, H. Zhao, J. Íñiguez, M. Gibert, J.-M. Triscone, [J. Kreisel](#)
Vibrational properties of LaNiO₃ films in the ultrathin regime *APL Materials* **8**, 061102 (2020)