

Prof. Dr.-Ing. Kai-Olaf Hinrichsen

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Personal data

Kai-Olaf Martin Hinrichsen
born January 17th, 1968 in Mainz, Germany
married, two children

Undergraduate and Graduate Studies

1987 – 1991	Technische Universität Berlin, energy and process engineering
1991 – 1993	University of Delaware in Newark/DE, USA, chemical engineering, degree conferred: M. Ch. E.
04/1993 – 07/1993	Technische Universität Berlin, energy and process engineering (contd.), degree conferred: Dipl.-Ing.
10/1993 – 02/1997	Fritz-Haber-Institut of the Max-Planck-Gesellschaft (Berlin), Physical Chemistry Department (Prof. Dr. rer. nat. G. Ertl), PhD student, degree conferred: Dr.-Ing.

Professional Career

03/1997 – 02/2003	Ruhr-Universität Bochum, research scientist
03/1997 – 12/2002	Habilitation (subject: Technical Chemistry)
03/2003 – 09/2004	Ruhr-Universität Bochum, senior research scientist
12/2002 – 11/2005	Ruhr-Universität Bochum, lecturer
10/2004 – 11/2005	Interim Professor (Lehrstuhl I für Technische Chemie), Technische Universität München, Department of Chemistry
11/2005 – 12/2006	Associate Professor (Technische Chemie mit Schwerpunkt Chemische Reaktionstechnik), Universität Leipzig, Department of Chemistry and Mineralogy
11/2005 – 12/2006	Lecturer, Technische Universität München, Department of Chemistry
28.01.2006	Call for a Full Professorship at Technische Universität Berlin (succ. Prof. Dr. rer. nat. K.-H. Reichert); not accepted
21.09.2006	Call for a Full Professorship at Technische Universität München (succ. Prof. Dr. phil. W. Nitsch); accepted
since January 2007	Full Professor of chemical engineering (Lehrstuhl I für Technische Chemie) at Technische Universität München
since January 2007	Member of the Examination Board of the study program Chemistry at TUM

01/2007 – 05/2008	Member of the Examination Board of the study program Chemical Engineering (Chemie-Ingenieurwesen) at TUM
since May 2008	Chairman of the Examination Board of the study program Chemical Engineering (Chemie-Ingenieurwesen) at TUM
since October 2008	Member of the TUM Catalysis Research Center
10/2009 – 9/2012	Deputy (Vice) Dean of the Department of Chemistry, Technische Universität München
since March 2010	Lecturer at GIST – TUM Asia, Singapore
since Nov. 2010	for TUM responsible for TUM Asia's Bachelor's program in Chemical Engineering, Singapore
2011 – 2013	Lecturer at Nanjing University of Science and Technology (NJUST) in Nanjing/China
10/2012 – 9/2018	Dean of the Department of Chemistry, Head of Chemistry Department, Technische Universität München
10/2012 – 9/2018	Member of TUM Extended Board of Management
since Nov- 2013	Member of the Examination Board of the study program Industrial Chemistry at TUM
since August 2019	Faculty Recruiting Chair, Technische Universität München
since Nov. 2022	Academic Program Director Chemie-Ingenieurwesen (Chemical Engineering)
since Dec. 2022	Member of TUM Asia Faculty
since Dec. 2024	Delegate Officer of the President for the TUM Asia Faculty

Industrial Training and Research Stays

06/1987 – 08/1987	Internship Fa. Schmidtchen, Berlin
07/1988 – 08/1988	Internship Fa. Schmidtchen, Berlin
08/1989 – 10/1989	Internship Mobay Corporation (today Bayer USA), Coatings Division, Pittsburgh/PA, USA
08/1990 – 09/1990	Internship Schering AG, Berlin Environmental and Processing Group
08/1994 – 09/1994	University of Wisconsin, Madison/WI, USA (Prof. J.A. Dumesic)

Awards

1991 – 1992	Fulbright scholarship
1994	Erwin-Stephan-Preis of the TU Berlin
1994	Diploma award of the Verein Deutscher Ingenieure (VDI)
1994 – 1996	Kekulé scholarship of the Fonds der Chemischen Industrie (FCI)
2000	Young Scientist Prize of the International Association of Catalysis Societies (IACS)
2003	Jochen-Block-Preis of the German Catalysis Society
2004	Dozentenstipendium of the Fonds der Chemischen Industrie

Professional Membership and Positions in Scientific Societies and Organizations

since 1987	Member of Verein Deutscher Ingenieure (VDI)
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since 1994	Member of Gesellschaft für Chemische Technik und Biotechnologie e.V. (DECHEMA)
2002 – 2019	Member of Verein zur Förderung der Chemie und Biochemie an der Ruhr-Universität Bochum (VFCh e.V.)
since 2007	Member of Gesellschaft Deutscher Chemiker e.V. (GDCh)
since 2007	Delegate of the Working Party „Chemical Reaction Engineering“ of the European Federation of Chemical Engineering (EFCE)
2007 – 2023	Delegate of ProcessNet Working Party “Education in Chemical Technology”
2008 – 2013	Member of the local Board of GDCh
2008 – 2013	Member of the Board of Münchner Chemische Gesellschaft (MChG)
since 2009	Member of the Main Committee Eurokin Consortium
since 2010	Speaker (2010 until 2023) and Member of the Steering Committee of MuniCat (Munich Catalysis. Alliance of Clariant and TUM)
since 2011	Mentor in the Max Weber-Programm of the Elitenetzwerk Bayern
2012 – 2017	Secretary of the Working Party „Chemical Reaction Engineering“ of the European Federation of Chemical Engineering (EFCE)
since 2014	Vertrauensdozent of the GDCh, responsible for the study programs Chemistry and Chemical Engineering
2015	Chairman of the European Symposium of Chemical Reaction Engineering (ESCRE), Fürstfeldbruck, October 27-30
2018 – 2023	Chairman of the Working Party „Chemical Reaction Engineering“ of the European Federation of Chemical Engineering (EFCE)
2020 – 2024	Member of the Commission of the German Catalysis Society (GeCatS)
since 2023	Member of the Steering Committee of MuniCat (Munich Catalysis. Alliance of Clariant and TUM)
since 2024	Member of the Steering Committee of the German Catalysis Society (GeCatS)

Editorial Boards, Expert Panel Boards, Advisory Boards

since 2015	Member of the Editorial Board of Chemical Engineering Research and Design (ChERD)
2015	Head of the expert panel for re-accreditation of the Faculty of Chemistry and Technology of the University of Split (Croatia)
2015	Head of the expert panel for re-accreditation of the Faculty of Chemical Engineering of the University of Zagreb (Croatia)
2015 – 2017	External Examiner, study program <i>Analytical Diploma in Applied Chemistry with Pharmaceutical Science</i> , Singapore Polytechnic (Singapore)
2016 – 2017	External Advisor, study programs, Southern Kazakhstan State M. Auezov University, Shymkent, Kazakhstan
since 2016	Advisory Board of Campus Burghausen, University of Applied Sciences, Rosenheim, Germany

2017	Expert Evaluator Catalysis Panel, Finnish Academy of Sciences
2018	Member of expert panel for re-accreditation of the Postgraduate University Doctoral Study Programmes <i>Chemistry of the Mediterranean Environment</i> and <i>Chemical Engineering in Materials Development and Environmental Protection</i> , University of Split (Croatia)
2018	Member of expert panel for re-accreditation of the Postgraduate University Doctoral Study Programme <i>Chemical Engineering and Applied Chemistry</i> , University of Zagreb (Croatia)
2018 – 2022	External Examiner, study program <i>Chemical Engineering</i> , Singapore Polytechnic (Singapore)
since 2020	Member of the Scientific Advisory Board, Department of Biochemical and Chemical Engineering, TU Dortmund, Germany
since 2021	Editorial Advisory Board of ACS Engineering AU
since 2022	AIChE Journal, Contributing Editor
since 2023	External Advisor, study programs, New Uzbekistan University (NewUU), Tashkent, Uzbekistan
since 2024	Advisor to TUM International GmbH, Academic City of Armenia, Yerevan, Armenia

Reviewer for the following scientific organizations:

Deutsche Forschungsgemeinschaft (DFG), Bundesministerium für Bildung und Forschung (BMBF) in Deutschland, Netherlands Organisation for Scientific Research (NWO), Cristian-Doppler Gesellschaft, Qatar National Research Fund (QNRF), Danish Council for Strategic Research, Academy of Finland, Swiss National Science Foundation

Reviewer for the following scientific peer-reviewed journals (selection):

Angewandte Chemie & Angewandte Chemie International Edition, Journal of Catalysis, Catalysis Letters, Catalysis Today, Chemical Engineering Science, Chemical Engineering Journal, Industrial & Engineering Chemistry Research, Chemical Engineering Technology, Chemical Engineering Communications, Chemical Engineering Processing Process Intensification, Thermochemica Acta, European Journal of Inorganic Chemistry, ChemPhysChem, Surface Science, Plasma Chemistry Plasma Processing, ChemCatChem, Applied Catalysis, Catalysis Science & Technology, AIChE Journal, International Journal of Chemical Reactor Engineering, Catalysis Communication, ACS Catalysis, Topics in Catalysis, Computers and Fluids, Journal of CO₂ Utilization, Journal of Non-Newtonian Fluid Mechanics, Separation and Purification Technology, Granular Matter, Chemistry Materials, Green Processing, International Journal of Hydrogen, Energy Technology, Journal of Total Energy

Research Interests

heterogeneous catalysis, microkinetics, microkinetic modeling, reactor analysis and design, computational fluid dynamics (CFD), multiphase catalysis, particle technology and catalyst formulation

Indices (as of March 1st, 2025)

more than 165 papers in peer-reviewed journals, several patents

Textbook “Technische Chemie”, 3rd edition, Wiley-VCH, 2023

ResearcherID: B-6934-2017; *ORCID*: 0000-0002-3796-6920

h-index: 44 (WoS)

h-index: 50 (Google scholar)