

SCIENTIFIC CAREER

- 12.2000 – 03.2001 Research assistant (half time), Institute of Physical Chemistry, University of Innsbruck
- 12.2000 – 01.2004 Student tutor in physico-chemical laboratories
- 05.2001 – 12.2003 Co-worker in the Joint Research Project (JRP) "Gas-Surface-Interactions", FWF (Austrian Science Foundation), S-8105PHY
- 12.2001 – 12.2003 Several extended stays at the Institute of Inorganic Chemistry, Fritz-Haber-Institute of the Max-Planck-Society, Berlin (High-resolution electron microscopy)
- 05.2004 – 05.2005 Post-doc fellow in Prof. Charles T. Campbell's research group at the University of Washington, Seattle financially supported by the Austrian Science Foundation (Erwin-Schroedinger-grant)

Fields of research:

- 1) Non-contact AFM and STM studies of the growth and sintering of Pd nanoparticles on $\text{Al}_2\text{O}_3(0001)$ and $\text{CeO}_2(111)$
- 2) XPS, LEIS and TPD studies of the interaction of O_2 and methane with Pd nanoparticles on $\text{Al}_2\text{O}_3(0001)$

since 07.2005 Research Associate, Institute of Physical Chemistry, LFU Innsbruck

RESEARCH AREAS

General

Materials Science
Surface Science
Heterogeneous Catalysis
UHV-and HV technology
Thin Film preparation and characterization
Microreactor Kinetics

Methods

Transmission Electron Microscopy (TEM) and related techniques
Scanning Tunneling Microscopy (STM)
Atomic Force Microscopy (AFM)
Low-energy Electron Diffraction (LEED)
X-ray Photoelectron Spectroscopy (XPS)
Low-energy Ion Scattering (LEIS)
Thermodesorption Spectroscopy (TPD)

Present Fields of Research

(High-resolution) Analytical Electron microscopy in Heterogeneous Catalysis: Structure-activity correlations in pure oxide catalysts and oxide-supported noble metal catalyst particles; Preparation and characterization of bi- and multimetallic thin film catalyst systems; Catalytic studies in reforming reactions with special focus on methanol steam reforming; Spectroscopic studies (FT-IR) of pure oxide catalysts

TEACHING

University of Innsbruck, Innsbruck, Austria

WS 2008/09

1. Physikalisch-chemisches Praktikum II	710111	PR 6
2. Praktikum Elektronenmikroskopie und Rastersondenmethoden	710712	PR 2
3. Elektronenmikroskopie und Rastersondenmethoden	710713	VO 1
4. Physikalische Chemie V, 2. Teil (Kinetik II und Katalyse)	710202	VO 2

SS 2008

1. Physikalisch-chemisches Praktikum für Fortgeschrittene	710204	PR 4
3. Physikalisch-Chemisches Praktikum I	710109	PR 6
4. Physikalische Chemie IV, 1. Teil (Thermodynamik II)	710105	VO 2

WS 2007/08

1. Physikalisch-chemisches Praktikum II	710111	PR 6
2. Praktikum Elektronenmikroskopie und Rastersondenmethoden	710712	PR 2
3. Elektronenmikroskopie und Rastersondenmethoden	710713	VO 1

SS 2007

1. Physikalische Chemie IV/Teil 1 (Thermodynamik II)	710105	VO 2
2. Physikalisch-chemisches Praktikum für Fortgeschrittene	710204	PR 4
3. Praktikum zur Chemischen Kinetik	710810	PR 4
4. Physikalisch-chemisches Praktikum I	710109	PR 6

WS 2006/07

1. Physikalisch-chemisches Praktikum II	710111	PR 6
2. Praktikum Elektronenmikroskopie und Rastersondenmethoden	710712	PR 2
3. Elektronenmikroskopie und Rastersondenmethoden	710713	VO 1

SS 2006

1. Physikalisch-chemisches Praktikum für Fortgeschrittene	710204	PR 4
2. Praktikum zur Chemischen Kinetik	710810	PR 4

WS 2005/06

1. Physikalisch-chemisches Praktikum II
2. Praktikum Oberflächenwissenschaften

710111 PR 6
710712 PR 2

University of Washington, Seattle, US

Assisting undergraduates and graduates

AWARDS

27.1. 2004 Erwin-Schroedinger grant of the FWF
(Austrian Science Foundation)

LANGUAGE SKILLS

<i>English</i>	fluent
<i>French</i>	good in speech and writing
<i>Russian</i>	good in speech and writing
<i>Spanish</i>	basic knowledge in speech and writing
<i>Italian</i>	basic knowledge in speech and writing

HOBBIES

Travelling to remote areas of the world
Anything related to climbing and mountaineering in summer and winter
Collecting minerals
Cooking