

Curriculum vitae Christoph Bräuchle

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Education

1968 - 1973:	Studies of chemistry and physics at TU Berlin and University Tübingen
1978:	Ph. D. in physical chemistry, LMU München
1982:	Habilitation in physical chemistry at LMU München

Professional Experience

1979-1980:	Postdoc Fellowship IBM San José (California) USA
1981-1983:	Teaching und Research Assistant LMU München
1984-1986:	C2-Assistant Professor LMU München

Calls

1986:	C4- Professorship (Chair) Physical Chemistry TU Berlin
1988:	C4-Professorship (Chair) Physical Chemistry, LMU München
1994:	C4-Professorship (Chair) Physical Chemistry, Director NMI/Univ. Tübingen
Since 1988:	C4 Professor (Chair) for Physical Chemistry, LMU München
Since 2012:	The official C4 Professorship for Physical Chemistry at the LMU has been prolonged until

September 2015 so far

Activities in the Scientific Community

1995-1997:	Dean of the Faculty of Chemistry and Pharmacy, LMU München
1998-2000:	Member of the senate, LMU München
1994-1997:	Head of the GDCh-Photochemistry board
1996-2001:	Member of the Review Board of the VW-Stiftung (Intra- and Intermolecular Electron Transfer)
1997-2002:	Initiation of the funding program of the VW-Stiftung on "Physics, Chemistry and Biology with Single Molecules"
1997-2002:	Member of the Minerva German-Israeli Foundation
2000-2008:	Member of the Board of the Center for NanoScience (CeNS) at LMU München
2002-2004:	Speaker of the Research Project "ForNano"
2004-2005:	Chairman of the Department of Chemistry, LMU München
2004-2012:	Speaker: International Elite Graduate School "Nano-Bio-Technology"
2008-2012:	Member of the DFG Review Board for Science (Physical Chemistry)
2006-2013:	Member of the Board of the Excellence Cluster "Nanosystems Initiative Munich" (NIM) at the LMU München
2006-2013:	Coordinator of the Research Area A "Protein Biophysics and Imaging" of the Excellence Cluster "Center for Integrated Protein Science" (CIPS) at the LMU München
2000-2014:	Member of the Editorial Board of ChemPhysChem
since 2006:	Deutsches Museum Munich: Member of the Board of Trustees
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Research Interests

- Spectroscopy, Imaging and Manipulation of Single Molecules and Nanoparticles in Bio- and Nano-Sciences:
- Dynamics of single molecules in nanoporous systems: mechanistical studies of translation, rotation, adsorption and spectral diffusion of single molecules in mesoporous silica structures and other nanoporous systems
- Development of smart drug delivery systems/nanomedicine: drug delivery with mesoporous silica nanoparticles, polyplexes and lipoplexes/targeting, controlled release and depot effect, live cell imaging of uptake and trafficking in living cells
- Live cell imaging and single virus tracing: observation of the infection pathway of a single virus into a living cell and production (self-assembly and budding) of viruses in infected cells for HIV and Herpes
- Nanoparticles and human health: live cell imaging of uptake and trafficking of nanoparticles (SiO₂, TiO₂, ZnO, CeO, Pt etc.) in endothelial cells in an artificial blood circulation model and toxicity measurements
- Hybrid nanosystems for light collection: combination of light harvesting complexes (photosynthesis) with metal nanoparticles (plasmons) as advanced biomimetic systems for solar energy collection
- Force spectroscopy with single polymer chains, especially polysiloxanes

Publications

More than 350 peer-reviewed papers published in scientific journals including high-ranking journals like "Nature", "Science", "Nature Materials", "Nature Nanotechnology", "Nature Cell Biology", "Phys. Rev. Lett." etc. For Details see link [Publications](#).

Awards:

2015:	Walther-Nernst-Denkmünze (awarded by the Deutsche Bunsengesellschaft at the Bunsentagung 2015)
2014:	Guest professorship at the University of California San Francisco
2012:	Guest professorship at the University of California San Diego
2011:	Guest professorship at the University of California Santa Barbara
2009:	Elected Member of the Academia Europaea since May 2009
2008:	Participant and invited presentation at the Nobel Symposium II "Single Molecules in Chemistry, Physics and Biology", Stockholm/Sweden
2002:	Karl Heinz Beckurts Preis 2002

2002:	Member of the Bavarian Academy of Sciences
2001:	Award at the Munich Business Plan Competition for the contribution "Single Virus Tracing"
1998:	Participant and invited presentation at the Nobel Symposium "Single Molecules in Chemistry, Physics and Biology", Stockholm/Sweden
1994:	Guest professorship at the University Paris
1993:	Guest professorship at the University of California, Los Angeles
1993:	Philip Morris Research Award "New Ways in Material Science"

Member of special funding programs:

DFG SFB 455:	"Viral Functions and Immune Modulation" (finished 2004)
DFG SFB 486:	"Manipulation of Matter on the Nanometer Scale" (1999-2009)
DFG SFB 533:	"Light Induced Dynamics of Biopolymers" (1999-2007)
DFG SFB 646:	"Network in Genome Expression and Maintenance" (2005-2007)
DFG SFB 749:	"Dynamik und Intermediate molekularer Transformationen" (2007-2011)
DFG SPP 1175:	"Application of ultrasensitive fluorescence methods to the envelopment and budding of viruses with a focus on HIV" (2005-2009)
DFG SPP 1313:	"Bioactivity and cellular uptake of distinct nanoparticles in human endothelial cells" (2008-2013)
LMU München NIM:	Excellence Cluster "Nanosystems Initiative Munich" (2006-2012), (2012-2017)
LMU München CiPSM:	Exzellenzcluster "Center for Integrated Protein Science Munich" (2006-2012), (2012-2017)

"ForNano" Bayerische Forschungsförderung (2002-2004)

DFG – Normalverfahren

Elitenetzwerk Bayern

LMUinnovativ

DFG SFB = DFG Sonderforschungsbereich

DFG SPP = DFG Schwerpunktprogramm