

中国科学院长春应用化学研究所

应用化学学术讲座

报 告 人	Reinhard Lipowsky	建 议 人	刘勇刚, 姬相玲
单位、电话和电子邮件信箱 Max Planck Institute of Colloids and Interfaces, Germany Tel: +49 331 567 9600 Email: lipowsky@mpikg.mpg.de	报 告 时 间	2012.5.10 (周四) 下午 1:30	
	报 告 地 点	主楼四楼学术厅 (410 房间)	
	主 持 人	殷敬华	
报 告 人 背 景	<p>Education 1972-1978 Study of physics at University of Heidelberg; Fellowship of the “Studienstiftung des Deutschen Volkes” 1975-1976 Study of physics at Imperial College, London. 1978 Physics diploma at University of Heidelberg; Diploma thesis with Heinz Horner on fully developed turbulence. 1982 Doctorate (“summa cum laude”) at University of Munich; Doctoral thesis with Herbert Wagner on surface phase transitions.</p> <p>Profession 1979-1984 Teaching associate with Herbert Wagner, University of Munich. 1984-1986 Research associate with Michael E. Fisher, Cornell University. 1986-1988 Group leader with Heiner Müller Krumbhaar, Forschungszentrum Jülich 1987 Habilitation in Theoretical Physics, University of Munich 1989-1990 Associate Professor at the University of Munich 1990-1995 Full Professor at the University of Cologne and Director of “Theory II” at Forschungszentrum Jülich. 1993- Full Professor and Founding Director of “Theory & Bio-Systems” at Max Planck Institute of Colloids and Interfaces (MPICI)</p> <p>Honors and executive leadership 1993 Scientific member of the Max Planck Society 1995 Managing director of MPICI 1995 Honorary Professorship at University of Potsdam 1998 Ordinary member of the Berlin Brandenburg Academy of Sciences 1999-2000 Managing director of MPICI 2000-2012 Speaker of International Max Planck Research School on “Biomimetic Systems” 2004-2008 Coordinator of EU Training Network on “Biomimetic Systems”</p>		

	<p>2005- Honorary Professorship at Humboldt University, Berlin 2005-2008 Coordinator of EU Research Network on “Active Bio-Systems” 2007-2008 Managing director of MPICI 2013-2019 Speaker of International Max Planck Research School on “Multiscale Biosystems: From molecular recognition to mesoscopic transport”</p> <p>Additional offers for professorships from: University of Heidelberg (1988); Carnegie Mellon University, Pittsburgh (2002); Ludwig-Maximilians-University Munich (2003)</p> <p>Area of Interests: The Department of “Theory and Bio-Systems” investigates the structure and dynamics of molecules, colloids and nanoparticles in biological and biomimetic systems. The molecular building blocks of these systems assemble “by themselves” and form a variety of supramolecular nanostructures, which then interact to produce even larger structures and networks. These complex processes represent hidden dimensions of selforganization since they are difficult to observe on the relevant length and time scales. Current research focuses on molecular recognition, energy conversion and transport by molecular motors, dynamics of transcription and translation, as well as selforganization of filaments and membranes.</p>
<p>报告题目</p>	<p>Selforganization of membranes and vesicles: Bridging the gap between molecular and mesoscopic scales</p>
<p>内容摘要:</p> <p>The amazing architecture of the living cell is based, to a large extent, on biomembranes, which involve many time and length scales and exhibit many levels of selforganization. On the molecular scale, these membranes represent fluid bilayers decorated by various types of macromolecules. On the mesoscopic scale as observed by optical microscopy, they behave as flexible surfaces that can easily adapt to external constraints and forces. This talk will first address the general issue about how to connect these different levels and will then focus on three topics: the specific interactions of membranes via membrane-anchored receptors and ligands, which are governed by a new law of mass action, the wetting of membranes and vesicles by aqueous polymer solutions, and the formation of membrane nanotubes.</p>	