

## Professor CHI, LIFENG

Department of Materials Science and Engineering, Faculty of Innovation Engineering  
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### Academic Qualification

Ph.D. in Physical Chemistry, Max-Planck-Inst. for Biophys. Chem./Goettingen Univ.  
M.S. in Physical Chemistry, Jilin University  
B.S. in Physics, Jilin University

### Teaching Area

General physics  
Scanning probe microscopy

### Research Area

Surface patterning: combination of bottom-up and top-down  
Area-selective growth organic molecules: architecture and functions  
On-surface reactions: principle and functional materials  
Scanning probe microscopy on soft materials: structure and properties

### Working Experience

1990 PostDoc Associate, Department of Chemistry, University of Mainz (with Prof. Helmut Ringsdorf), Germany  
1991 PostDoc Associate, BASF AG, with Dr. H. Fuchs, Germany  
1993 Group leader/Habilitation, Physics Institute, WWU Muenster, Germany (with Prof. Harald Fuchs)  
2004 Professor, Physics Institute, WWU Muenster, Germany  
2012 - present Professor, Institute of Functional Nano & Soft Materials, Soochow University, China

### Academic Publication (Selected)

Dingyong Zhong, Jörn-Holger Franke, Santhosh Kumar Podiyanchari, Tobias Blömker, Haiming Zhang, Gerald Kehr, Gerhard Erker\*, Harald Fuchs\*, **Lifeng Chi\***, Linear alkane polymerization on a gold surface, *Science*, 334 (6053) (2011), 213-216.

Michael Gleiche, **Lifeng Chi\***, Harald Fuchs, Nanoscopic channel lattices with controlled anisotropic wetting, *Nature*, 403 (6766) (2000), 173-175.

B. Yang\*, K. Niu, F. Haag, N. Cao, J. Zhang, H. Zhang, Q. Li, F. Allegretti, J. Björk, J. Barth\* and **L. F. Chi\***, Abiotic formation of an amide bond via surface-supported DirectCarboxyl–Amine coupling, *Angew. Chem. Int. Ed.*, 60(2021), 2-11.

X. C. Li, K. F. Niu, J. J. Zhang, X. J. Yu, H. M. Zhang\*, Y. M. Wang\*, Q. Guo, P. D. Wang, F. S. Li, Z. M. Hao, C. J. Xu, Y. N. Tang, Z. C. Xu, S. Lu, P. Liu, G. G. Xue, Y. Wei and **L. F. Chi\***, Direct transformation of n -alkane into all- trans conjugated polyene via cascade dehydrogenation, *Natl. Sci. Rev.*, 8(2021), nwab093.

Kewei Sun, Aixi Chen, Meizhuang liu, Haiming Zhang\*, Ruomeng Duan, Penghui Ji, Ling Li, Qing Li, Chen Li, Dingyong Zhong, Klaus Müllen, **Lifeng Chi\***, Surface-assisted alkane polymerization: Investigation on structure-reactivity relationship, *J. Am. Chem. Soc.*, 140 (14) (2018), 4820-4825.

Qing Li, Biao Yang, Jonas Björk, Qigang Zhong, Huanxin Ju, Junjie Zhang, Nan Cao, Ziliang Shi, Haiming Zhang, Daniel Ebeling, Andre Schirmeisen, Junfa Zhu, **Lifeng Chi\***, Hierarchical dehydrogenation reactions on a copper surface, *J. Am. Chem. Soc.*, 140 (19) (2018), 6076-6082.

Zi Wang, Lizhen Huang, Xiaofei Zhu, Xu Zhou, **Lifeng Chi\***, An ultrasensitive organic semiconductor NO2 sensor based on crystalline TIPS-pentacene films, *Adv. Mater.*, 29 (38) (2017), 1703192.

Haiming Zhang, Zhongmiao Gong, Kewei Sun, Ruomeng Duan, Penghui Ji, Ling Li, Chen Li, Klaus Müllen, **Lifeng Chi\***, Two-dimensional chirality transfer via on-surface reaction, *J. Am. Chem. Soc.*, 138 (36) (2016), 11743-11748.

Haiming Zhang, Haiping Lin, Kewei Sun, Long Chen, Yulian Zagranyski, Nabi Aghdassi, Steffen Duhm, Qing Li, Dingyong Zhong, Youyong Li, Klaus Müllen\*, Harald Fuchs\*, **Lifeng Chi\***, On-surface synthesis of rylene-type graphene nanoribbons, *J. Am. Chem. Soc.*, 137 (12) (2015), 4022-4025.

Lin Jiang, Xiaodong Chen, Nan Lu, **Lifeng Chi\***, Spatially confined assembly of nanoparticles, *Acc. Chem. Res.*, 47 (10) (2014), 3009-3017.

## Books

Hendrik Wagner, Maike Becker, **Lifeng Chi**, Armido Studer, Structuring of polymer brushes and surface nitroxide exchange reactions, in *Progress in Controlled Radical Polymerization: Materials and Applications*, Vol. 1101, *American Chemical Society*, 2012, pp. 241-256.

Xiaodong Chen, **Lifeng Chi**, Organized structures formation driven by interfacial instability at the three phase contact line: Langmuir-Blodgett patterning, in *Evaporative Self-assembly of Ordered Complex Structures* (Ed.: Z. Lin), *World Scientific*, 2012, pp. 157-187.

Dingyong Zhong, Haiming Zhang, **Lifeng Chi**, Surface-supported nanostructures directed by atomic- and molecular-level templates, in *Nanotechnology*, Wiley-VCH Verlag GmbH & Co. KGaA, 2010.

Xiaodong Chen, **Lifeng Chi**, The evolution of Langmuir-Blodgett patterning in *Nanotechnology* (Ed.: L. Chi), Wiley-VCH Verlag GmbH & Co. KGaA, 2010.

Lin Jiang, **Lifeng Chi**, Strategies for high resolution patterning of conducting polymers, in *Lithography* (Ed.: M. Wang), *Intech*, 2010, pp. 645-656.

Xiaodong Chen, **Lifeng Chi**, Interfacial assembly of nanoparticles into higher-order patterned structures, in *Nanostructured Materials* (Ed.: G. Wilde), *Elsevier*, 2009, pp. 326-365.

**Lifeng Chi**, Michael Gleiche, Steven Lenhart, Nan Lu, Heterogeneous surfaces with nanosized channel lattice, in *Encyclopedia of Nanoscience and Nanotechnology* (Ed.: J. A. Schwarz), *Marcel Dekker*, New York, 2004.

**Lifeng Chi**, Christian Röthig, Scanning probe microscopy of nanoclusters, in *Characterization of Nanophase Materials*, Wiley-VCH Verlag GmbH, 2001, pp. 133-163.

Dietmar Möbius, Ramesh C. Ahuja, **Lifeng Chi**, Wolfgang Cordroch, Zhimin Li, Gabriella Caminati, Mutsuyoshi Matsumoto, Photoinduced electron transfer: Fundamental differences between homogeneous phase and organized monolayers, in *Dynamics and Mechanisms of Photoinduced Electron Transfer and Related Phenomena* (Eds.: T. Okada, H. Masuhara), *Elsevier*, Amsterdam, 1992, pp. 377-393.

## Patents

Xueli Shen, **Lifeng Chi**, Wenchong Wang, Lizhen Huang, 有机半导体器件原位电学性能监测设备, China patent, Grant No. ZL 2021 1 0464112.2, July 2021.

**Lifeng Chi**, Lizhen Huang, Zi Wang, Xiaofei Zhu, NO<sub>2</sub> 化学电阻式气体传感器及其制备方法, China patent, Grant No. ZL 2017 1 1216696.1, April 2020.

**Lifeng Chi**, Wenchong Wang, 一种原位形貌和光学性能监控蒸发源及真空沉积设备, China patent, Grant No. ZL 2014 1 0070043.7, October 2015.

Nan Lv, Liguao Gao, Weifeng Wang, Juanyuan Hao, **Lifeng Chi**, 用微米级模板构筑亚微米或纳米级模板的方法, China patent, Grant No. ZL 2008 1 0051345.4, 2011.

Nan Lv, Liguao Gao, Juanyuan Hao, Wei Hu, Gang Shi, **Lifeng Chi**, 选择性光褪色制备多色发光图案的方法, China patent, Grant No. ZL 2008 1 0051679.1, 2011.

Nan Lv, Hongbo Xu, Dianpeng Qi, Liguao Gao, **Lifeng Chi**, 以单层纳米粒子为刻蚀阻挡层构筑抗反射微结构的方法, China patent, Grant No. ZL 2008 1 0050888.4, 2010.

Nan Lv, Binjie Yang, Yunyu Huang, **Lifeng Chi**, 金属有序结构表面增强基底的构筑方法, China patent, Grant No. ZL 2007 1 0055453.4, 2010.

Nan Lv, Wei Hu, **Lifeng Chi**, 一种构筑微米、亚微米结构表面的方法, China patent, Grant No. ZL 2006 1 0016743.3, 2009.

Nan Lv, Wei Hu, Juanyuan Hao, **Lifeng Chi**, 基底诱导同一染料分子发不同颜色荧光的方法, China patent, Grant No. ZL 2006 1 0016744.8, 2008.

Michael Gleiche, **Lifeng Chi**, Harald Fuchs, Verfahren Zur Erzeugung geordneter Kanalstrukturen durch Benetzungswinstabilitaeten, Germany Patent, Grant No. 19928658, 2002

## Professional Certification and Awards

IUPAC Distinguished Women Sponsored by The International Union of Pure and Applied Chemistry, 2017

ACS Nano Lectureship, Sponsored by the ACS, USA, 2016

Outstanding Young Scientist Cooperation Program, Sponsored by National Natural Science of China, China, 1999

Lise-Meitner Scholarship, Germany, 1997

## Student Awards (Selected)

Penghui Ji, Society of Vacuum Coaters (SVC) Foundation Scholarship, 2021

Kewei Sun, Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellowships for Research in Japan, 2020

Biao Yang, TUM University Foundation Fellowship (TUFF) Alumni, Technical University of Munich, Germany, 2019

## Professional Society Membership

Academician of Chinese Academy of Sciences, China, 2021

Foreign Academician of the Academia Europaea, 2020

Fellow of the Chinese Chemical Society, China, 2020