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### 略歴

1995年3月 千葉大学理学部化学科 卒業  
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1997年3月 千葉大学大学院理学研究科 修士課程 (化学専攻) 修了  
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2000年3月 千葉大学大学院自然科学研究科 博士課程 (多様性化学専攻) 修了  
多元素化学研究室 (今本恒雄教授)  
2000年4月 理化学研究所基礎科学特別研究員(若槻康雄主任研究員)  
2002年10月 理化学研究所研究員 (中央研究所侯有機金属化学研究室)  
2009年4月-現在 理化学研究所 (侯有機金属化学研究室) 専任研究員  
2013年4月-現在 理化学研究所環境資源科学研究センター  
先進機能触媒研究グループ 専任研究員 兼務

### 兼務

2004年- 北京大学化学学院客員助教授  
2008年- 大連理工大学客員助教授

### 受賞

2009年 理化学研究所研究奨励賞  
2011年 有機合成化学協会奨励賞  
2013年 日本希土類学会奨励賞 (足立賞)

### 主な著書、論文

- 1) B. Wang, M. Nishiura, J. Cheng and Z. Hou,  
"Half-Sandwich Scandium Boryl Complexes Bearing a Silylene-Linked Cyclopentadienyl-Amido Ligand "  
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- 2) F. Guo, M. Nishiura, Y. Li, Z. Hou,  
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- 3) K. Nishii, X. Kang, M. Nishiura, Y. Luo and Z. Hou,  
"Regio- and Stereospecific Living Polymerization and Copolymerization of (E)-1,3-Pentadiene with 1,3-Butadiene by Half-sandwich Scandium Catalysts",  
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- 4) B. Guan, B. Wang, M. Nishiura, and Z. Hou,  
"Yttrium-Catalyzed Addition of Benzylic C-H Bonds of Alkyl Pyridines to Olefins",

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- 5) F. Guo, M. Nishiura, Y. Li, and Z. Hou,  
"Copolymerization of Isoprene and Nonconjugated  $\alpha,\omega$ -Dienes by Half-Sandwich Scandium Catalysts with and without a Coordinative Side Arm",  
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  - 6) T. Li, M. Nishiura, J. Cheng, Y. Li, and Z. Hou,  
" $M_4(CH_2)_4$  Cubane-Type Rare-Earth Methylidene Complexes: Unique Reactivity toward Unsaturated C-O, C-N, and C-S Bonds",  
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  - 7) F. Guo, M. Nishiura, H. Koshino, and Z. Hou,  
"Scandium-Catalyzed Cyclocopolymerization of 1,5-Hexadiene with Styrene and Ethylene: Efficient Synthesis of Cyclopolyolefins Containing Syndiotactic Styrene-Styrene Sequences and Methylene-1,3-cyclopentane Units",  
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  - 8) J. Oyamada, M. Nishiura, Z. Hou,  
"Scandium-Catalyzed Silylation of Aromatic C-H Bonds",  
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  - 9) S. Li, J. Cheng, Y. Chen, M. Nishiura, and Z. Hou,  
"Rare Earth Metal Boryl Complexes: Synthesis, Structure, and Insertion of a Carbodiimide and Carbon Monoxide"  
**Angew. Chem. Int. Ed.**, **2011**, *50*, 6360-6363.
  - 10) W. Zhang, Z. Wang, M. Nishiura, Z. Xi, and Z. Hou,  
" $Ln_4(CH_2)_4$  Cubane-Type Rare-Earth Methylidene Complexes Consisting of " $(C_5Me_4SiMe_3)LnCH_2$ " Units ( $Ln=Tm, Lu$ )"  
**J. Am. Chem. Soc.**, **2011**, *133*, 5712-5717.
  - 11) F. Guo, M. Nishiura, H. Koshino, Z. Hou,  
"Cycloterpolymerization of 1,6-Heptadiene with Ethylene and Styrene Catalyzed by a THF-Free Half-Sandwich Scandium Complex",  
**Macromolecules**, **2011**, *44*, 2400-2403.
  - 12) M. Nishiura, J. Baldamus, T. Shima, K. Mori, Z. Hou,  
"Synthesis and Structures of the  $C_5Me_4SiMe_3$ -Supported Polyhydride Complexes over the Full Size Range of the Rare Earth Series",  
**Chem. Eur. J.**, **2011**, *17*, 5033-5044.
  - 13) L. Pan, K. Zhang, M. Nishiura, Z. Hou,  
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  - 14) M. Nishiura, Z. Hou,  
"Novel Polymerization Catalysts and Hydride Clusters from Rare Earth Metal Dialkyls",  
**Nature Chem.**, **2010**, *2*, 257-268.
  - 15) X. Li, M. Nishiura, L. Hu, K. Mori, Z. Hou,  
"Alternating and Random Copolymerization of Isoprene and Ethylene Catalyzed by Cationic Half-Sandwich Scandium Alkyls",  
**J. Am. Chem. Soc.**, **2009**, *131*, 13870-13882 .
  - 16) L. Zhang, M. Nishiura, M. Yuki, Y. Luo, Z. Hou,  
"Isoprene Polymerization with Yttrium Amidinate Catalyst: Switching the Regio- and Stereoselectivity by Addition of  $AlMe_3$ "  
**Angew. Chem., Int. Ed.**, **2008**, *47*, 2642-2645 .
  - 17) M. Nishiura, T. Mashiko, Z. Hou,  
"Synthesis and Styrene Polymerisation Catalysis of  $\eta^5$ - and  $\eta^1$ -Pyrrolyl-Ligated Cationic Rare Earth Metal Aminobenzylcomplexes",  
**Chem. Commun.**, **2008**, 2019-2021.
  - 18) X. Li, M. Nishiura, K. Mori, T. Mashiko, Z. Hou,

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- 19) X. Li, J. Baldamus, M. Nishiura, O. Tardif, Z. Hou,  
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- 20) W.-X. Zhang, M. Nishiura, Z. Hou,  
"Catalytic Addition of Terminal Alkynes to Carbodiimides by half-Sandwich Rare Earth Metal Complexes",  
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- 21) M. Nishiura, Z. Hou, Y. Wakatsuki,  
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**Organometallics**, **2004**, *23*, 1359-1368 .
- 22) M. Nishiura, Z. Hou, Y. Wakatsuki, T. Yamaki, and T. Miyamoto,  
"Novel Z-Selective Head-to-Head Dimerization of Terminal Alkynes Catalyzed by Lanthanide Half-Metallocene Complexes",  
**J. Am. Chem. Soc.**, **2003**, *125*, 1184-1185 .