

# Masahiro Yamashita



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## Education/Careers;

1982      Kyushu University (PhD)  
1982      JSPS Post Doctor of Institute for Molecular Science  
1983      Assistant Professor of Kyushu University  
1987      Associate Professor of Nagoya University  
1989-1990 Visiting Professor of University College London  
1998      Professor of Nagoya University  
1999      Professor of Tokyo Metropolitan University  
2004-      Professor of Tohoku University  
2016-      Lecture Professor of Nankai University(China)

## Awards & Distinctions:

2002      Award of Inoue Scientific Foundation  
2005      The Chemical Society of Japan Award for Creative Work for 2005  
2009-      Associate Member of Science Council of Japan  
2012-      Associate Editor of Dalton Transactions (RSC)  
2013      Fellow of Royal Society of Chemistry (FRSC)  
2014-      Advisory Board Member of Inorganic Chemistry (ACS)  
2014      Award of Japan Society of Coordination Chemistry  
2019      Mukai Award

## Research Interest:

[1]Nano-Science of Advanced Metal Complexes, [2]Quantum Molecular Spintronics Based on Single-Molecule Magnets, [3]Nano-Wire Metal Complexes with Strong Electron-Correlations

## Representative Publications:

- [1]"Gigantic Optical Nonlinearity in One-Dimensional Mott-Hubbard Insulators", H. Kishida, H. Okamoto, T. Manabe, M. Yamashita, Y. Taguchi, and Y. Tokura, *Nature*, 405, 929-932(2000)
- [2]"Observation and Electric Current Control of a Local Spin in a Single-Molecule Magnet", T. Komeda, H. Isshiki, Y. F. Zhang, N. Lorente, K. Katoh, and M. Yamashita, , *Nature Commun.*, 2, 217-223 (2011)
- [3]"Direct Observation of Ordered High-Spin-Low-Spin Intermediate States of an Iron(III) Three Step Spin-Crossover Complex", Z.-Y. Li, H. Ohtsu, T. Yoshida, T. Kojima, B. K. Breedlove, J. -W. Dai, W. Zhang, H. Iguchi, O. Sato, M. Kawano, and M. Yamashita, *Angew. Chem. Int. Ed.*, 55, 5184(2016)
- [4]"Multiple Hydrogen-Bond Approach to Realize Uncommon Pd(III)-Br Chain Complex Exhibiting High Conductivity and Thermal Stability"  
M. R. Mian, H. Iguchi, S. Takaishi, M. Yamashita, et. al., *J. Am. Chem.Soc.*, 139, 6562-6565(2017)
- [5]"Comparoson of the Magnetic Anisotropy and Spin Relaxation Phenomena of Dinuclear Terbium(III) Phthalocyaninato Single-Molecule Magnets Using the Geometric Spin Arrangement  
T. Morita, M. Damjanovic, K. Katoh, Y. Kitagawa, N. Yasuda, Y. Lan, W. Wernsdorfer, B. K. Breedlove, M Enders, and M. Yamashita, *J. Am. Chem. Soc.*, 140, 2995-3007(2018) (*Front Cover*)
- [6]"Control of the Spin Dynamics of Single-Molecule Magnets by a Quasi-One-Dimensional Arrangement"  
K. Katoh, M. Yamashita, et al., *Angew. Chem. Int. Ed.*, 57, 1-7(2018) (*Front Cover*)
- [7]"Scaling Up Electronic Spin Qubits into a Three-Dimensional Metal-Organic Framework", T. Yamabayashi, R. Sessoli, M. Yamashita, et al., *J. Am. Chem. Soc.*, 140, 12090(2018)
- [8]Structural Switching and Modulation of Magnetic Properties in Diarylethene-Bridged Metallosupramolecular Compounds via Control Coordination Driven Self Assembly,  
Z. Li, J. W. Dai, M. Yamashita, et al., *Angew. Chem. Int. Ed.*, 58, 4339-4344(2019)