Resume of Professor Dr. TONG Mingliang

Curriculum vitae

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EDUCATION:

1989 B.S., Central China Normal University
1996 M.S., Sun Yat-Sen University
1999 Ph.D., Sun Yat-Sen University

RESEARCH EXPERIENCE:

1/1999-6/1999 : Research Assistant, Chinese University of Hong Kong.
Host Scientist: Prof. Hung-Kay Lee
"Metal Cluster Compounds"

7/1999-4/2001 : Lecturer, Sun Yat-Sen University, Guangzhou China.
"Functional Coordination Polymers"

5/2001-10/2001 : Associate Professor of Chemistry, Sun Yat-Sen University.
"Functional Coordination Polymers"

11/2001-8/2003 : JSPS Post-doctoral Fellow in Kyoto University, Japan.
Host Scientist: Prof. Susumu Kitagawa
"Functional Coordination Polymers"

9/2003-4/2004 : Associate Professor of Chemistry, Sun Yat-Sen University.
"Molecular Based Magnetic Materials"

5/2004-present : Professor of Chemistry, Sun Yat-Sen University.
"Single-molecule magnets; Single-chain magnets; Magnetic metal-organic frameworks; Cryogenic molecular magnetic refrigerants; Spin crossover materials; Multifunctional magnetic molecular solids"

HONORS AND AWARDS:

- Awardee of the Top 100 National Outstanding Dissertations in 2001.
- Distinguished Young Scholar of the National Natural Science Foundation (NSFC) in 2005.
- The State Natural Science Award (the 2nd Grade) in 2007.
- Distinguished Lectureship Award of the Asian Symposium of Annual Meeting of Chemical Society of Japan in 2012.
- Chang Jiang Scholarship in 2014
- Fellow of the Royal Society of Chemistry (FRSC) in 2014.

OTHER SCIENTIFIC ACTIVITIES:

Members of Editorial Board of *Acta Chimica Sinica*, *Chin. Chem. Lett.*, *Chin. J. Inorg. Chem.*, *J Rare Earth*, *Scientific Reports*

SELECTED PUBLICATIONS: (>300 publications published in refereed journals, h factor: 71, 16,000+ citations)

1. "Luminescent single-molecule magnets based on lanthanides: design strategies, recent advance and magneto-luminescent studies", Jia, J.-H.*; Li, Q.-W.; Chen, Y.-C.; Liu, J.-L.; Tong, M.-L.* *Coord. Chem. Rev.*, **2019**, *378*, 365-381.
2. "Magnetic Hysteresis up to 80 K in a Dysprosium Metallocene Single-Molecule Magnet", Guo, F.-S.; Day, B. M.; Chen, Y.-C.; Tong, M.-L.*; Mansikamäkki, A.*; Layfield, R. A.* *Science*, **2018**, *362*, DOI: 10.1126/science.aav0652.
3. "Symmetry strategies for high performance lanthanide-based single-molecule magnets", Liu, J.-L.; Chen, Y.-C.; Tong, M.-L.* *Chem. Soc. Rev.*, **2018**, *47(7)*, 2431-2453.
4. "Guest Switchable Multi-Step Spin Transition in an Amine-Functionalized Metal-Organic Framework", Liu, W.; Peng, Y.-Y.; Wu, S.-G.; Chen, Y.-C.; Hoque, Md. N.; Ni, Z.-P.*; Chen, X.-M.; Tong, M.-L.* *Angew. Chem. Int. Ed.*, **2017**, *56(47)*, 14982-14986.
5. "Slow Magnetic Relaxation in Intermediate Spin S = 3/2 Mononuclear Fe(III) Complexes", Feng, X.-W.; Hwang, S. J.; Liu, J.-L.; Chen, Y.-C.; Tong, M.-L.; Nocera, D.* *J. Am. Chem. Soc.*, **2017**, *139(46)*, 16474-16477.
6. "Hyperfine interaction-driven suppression of quantum tunneling at zero field in a Ho(III) single-ion magnet", Chen, Y.-C.; Liu, J.-L.*; Wernsdorfer, W.; Liu, D.; Chibotaru, L. F.; Chen, X.-M.; Tong, M.-L.* *Angew. Chem. Int. Ed.*, **2017**, *56(18)*, 4996-5000.
7. "A Dysprosium Metallocene Single-Molecule Magnet Functioning at the Axial Limit", Guo, F.-S.; Day, B. M.; Chen, Y.-C.; Tong, M.-L.; Mansikamäkki, A.; Layfield, R. A.* *Angew. Chem. Int. Ed.*, **2017**, *56(38)*, 11445-11449.
8. "Recent advance in guest effects on spin-crossover behaviour in Hofmann-type metal-organic frameworks", Ni, Z.-P.*; Liu, J.-L.; Hoque, M. N.; Liu, W.; Li, J.-Y.; Chen, Y.-C.; Tong, M.-L.* *Coord. Chem. Rev.*, **2017**, *335*, 28-43.
9. "A stable pentagonal-bipyramidal Dy(III) single-ion magnet with a record magnetization reversal barrier over 1000 K", Liu, J.; Chen, Y.-C.; Liu, J.-L.*; Vieru, V.; Ungur, L.; Jia, J.-H.; Chibotaru, L. F.*; Lan, Y.; Wernsdorfer, W.*; Gao, S.; Chen, X.-M.; Tong, M.-L.* *J. Am. Chem. Soc.*, **2016**, *138(16)*, 5441-5450.
10. "Symmetry supported magnetic blocking at 20 K in the pentagonal bipyramidal Dy(III) single-ion magnets", Chen, Y.-C.; Liu, J.-L.*; Ungur, L.*; Liu, J.; Li, Q.-W.; Wang, L.-F.; Ni, Z.-P.; Chibotaru, L. F.; Chen, X.-M.; Tong, M.-L.* *J. Am. Chem. Soc.*, **2016**, *138(8)*, 2829-2837.
11. "A heterometallic Fe^{II}-Dy^{III} single-molecule magnet with a record anisotropy barrier", Liu, J.-L.; Wu, J.-Y.; Chen, Y.-C.; Mereacre, V.; Powell, A. K.*; Ungur, L.*; Chibotaru, L. F.; Chen, X.-M.; Tong, M.-L.***** *Angew. Chem. Int. Ed.*, **2014**, *53(47)*, 12966-12970.
12. "Recent advances in the design of magnetic molecules for use as cryogenic magnetic coolants", Liu, J.-L.; Chen, Y.-C.; Guo, F.-S.; Tong, M.-L.***** *Coord. Chem. Rev.*, **2014**, *281*, 26-49.
13. "The effect of an active guest on the spin crossover phenomenon", Bao, X.; Shepherd, H. J.; Salmon, L.; Molnár, G.; Tong, M.-L.*; Bousseksou, A.* *Angew. Chem. Int. Ed.*, **2013**, *52(4)*, 1198-1202.
14. "Switching the anisotropy barrier of a single-ion magnet by symmetry change from quasi-D_{5h} to

quasi-O_h", Liu, J.-L.; Chen, Y.-C.; Zhen, Y.-Z.; Lin, W.-Q.; Ungur, L.; Wernsdorfer, W.; Chibotaru, L. F.*; Tong, M.-L.* *Chem. Sci.*, **2013**, *4(8)*, 3310-3316.

15. "Remarkably high temperature spin transition exhibited by two new metal-organic frameworks", Bao, X.; Guo, P.-H.; Liu, W.; Tucek, J.; Zhang, W.-X.; Leng, J.-D.; Chen, X.-M.; Guraslkyi, I.; Salmon, L.; Bousseksou, A.; Tong, M.-L.* *Chem. Sci.*, **2012**, *3(5)*, 1629-1633.
16. "The coordination chemistry of cyclohexanepolycarboxylate ligands. Structures, conformation and functions", Lin, Z.; Tong, M.-L.* *Coord. Chem. Rev.*, **2011**, *255(3-4)*, 421-450.
17. "Symmetry related [$Dy^{III}_6Mn^{III}_{12}$] cores with different magnetic anisotropies", Liu, J.-L.; Guo, F.-S.; Meng, Z.-S.; Zheng, Y.-Z.; Leng, J.-D.; Tong, M.-L.*; Ungur L.; Chibotaru, L. F.*; Heroux, K. J.; Hendrickson, D. N.* *Chem. Sci.*, **2011**, *2(7)*, 1268-1272.
18. "Néel temperature enhanced by increasing the in-plane magnetic correlation in layered inorganic-organic hybrid materials", Zheng, Y.-Z.; Xue, W.; Zheng, S.-L.; Tong, M.-L.; Chen, X.-M.* *Adv. Mater.*, **2008**, *20(8)*, 1534-1538.
19. "Solvothermal in-situ metal/ligand reactions: a new bridge between coordination chemistry and organic synthetic chemistry", Chen, X.-M.*; Tong, M.-L. *Acc. Chem. Res.*, **2007**, *40(2)*, 162-170.
20. "Giant heterometallic $Cu_{17}Mn_{28}$ cluster with T_d symmetry and high-spin ground state", Wang, W.-G.; Zhou, A.-J.; Zhang, W.-X.; Tong, M.-L.*; Chen, X.-M.; Nakano, M.; Beedle, C. C.; Hendrickson, D. N.* *J. Am. Chem. Soc.*, **2007**, *129(5)*, 1014-1015.
21. "A "Star" Antiferromagnet: A polymeric iron(III) acetate exhibiting the coexistence of spin-frustration and long-range magnetic order", Zheng, Y.-Z.; Tong, M.-L.; Xie, W.; Zhang, W.-X.; Chen, X.-M.*; Grandjean, F.; Long, G. J.* *Angew. Chem. Int. Ed.*, **2007**, *46(32)*, 6076-6080.
22. "Complexation, structure and SOD activity of the imidazolate-bridged dinuclear copper moiety with β-cyclodextrin and its guanidinium-containing derivative", Fu, H.; Zhou, Y.-H.; Chen, W.-L.; Deqing, Z.-G.; Tong, M.-L.; Ji, L.-N.; Mao, Z.-W.* *J. Am. Chem. Soc.*, **2006**, *128(15)*, 4924-4925.
23. "Towards assembling "magnetic nanowires" into network: a layered Co(II)-carboxylate coordination polymer exhibiting single-chain-magnet behavior", Zheng, Y.-Z.; Tong, M.-L.; Zhang, W.-X.; Chen, X.-M.* *Angew. Chem. Int. Ed.*, **2006**, *45(38)*, 6310-6314.
24. "Cu^{2+}-mediated dehydrogenative coupling and hydroxylation of a *N*-heterocycle ligand: from generating a new tetratopic ligand to designed assembly of three-dimensional copper(I) coordination polymers", Hu, S.; Chen, J.-C.; Tong, M.-L.*; Wang, B.; Yan, Y.-X.; Batten, S. R. *Angew. Chem., Int. Ed.*, **2005**, *44(34)*, 5471-5475.
25. "A novel neutral three-dimensional copper coordination polymer showing one-dimensional channels and the first interpenetrating NbO-type network", Bu, X.-H.*; Tong, M.-L.; Chang, H.-C.; Kitagawa, S.*; Batten, S. R. *Angew Chem. Int. Ed.*, **2004**, *43(2)*, 192-195.
26. "A new self-penetrating uniform net, (8,4) (or 8^6), containing 4-coordinate nodes", Tong, M.-L.*; Chen, X.-M.; Batten, S. R.* *J. Am. Chem. Soc.*, **2003**, *125(52)*, 16170-16171.
27. "Hydroxylation of N-heterocycle ligands observed in two unusual mixed-valence Cu^I/Cu^{II} complexes", Zhang, X.-M.; Tong, M.-L.; Chen, X.-M.* *Angew. Chem. Int. Ed.*, **2002**, *41(6)*, 1029-1031.
28. "Self-assembled three-dimensional coordination polymers with unusual ligand-unsupported Ag-Ag bonds. Syntheses, structures and luminescent properties", Tong, M.-L.; Chen, X.-M.*; Ye, B.-H.; Ji, L.-N. *Angew. Chem. Int. Ed.*, **1999**, *38(15)*, 2237-2240.