

唐正华简历

姓名：唐正华（博士）

副教授，广东省杰出青年科学基金获得者
华南理工大学环境与能源学院新能源研究所，
广州番禺大学城华南理工大学 B5-501 室，
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个人情况

性别：男 出生年月：1981 年 7 月 24 日
籍贯：湖南省炎陵县 健康状态：良好

研究兴趣

纳米团簇，电化学，催化与自组装，生物纳米材料

- 具有确定结构式的贵金属纳米团簇的合成，表征及其性质研究；
- 纳米团簇用于电催化如甲醇氧化，氧还原等以及纳米团簇在有机反应如选择性氢化，氧化等方面的研究；
- 催化与自组装，生物纳米材料，主要是利用多肽与无机材料的特异性作用来构建新型纳米复合材料，以实现催化，自组装，多功能材料设计等应用。

教育背景和工作经历

2001 年 9 月-2005 年 7 月： 兰州大学化学化工学院化学基地班
本科 (获学士学位)

2005 年 9 月-2007 年 7 月： 兰州大学化学化工学院
直接攻读博士学位研究生
导师:曹小平 教授

2006 年 10 月-2007 年 6 月： 访问学生
中国科学院化学研究所（北京）
导师:孙文华 研究员

2007 年 8 月-2012 年 7 月： 博士生 (获博士学位)
美国佐治亚州立大学化学系
导师: Prof. Gangli Wang

2012 年 8 月-2014 年 7 月： 博士后
美国迈阿密大学(University of Miami)化学系
合作导师: Prof. Marc R. Knecht

2014 年 8 月-现在： 副教授
新能源研究所，华南理工大学环境与能源学院

奖励与荣誉

1. 2010 Chair's Award, Department of Chemistry, Georgia State University;
2. 2011 Chinese Government Award for Outstanding Self-Financed Students Abroad (2011 国家优秀自费留学生奖学金, 该荣誉竞争十分激烈, 每年全美所有大学和研究所里面只有 150 位左右中国学生能够获此殊荣);
3. 2011-2012 Center for Diagnostics and Therapeutics (CDT) Fellowship, Department of Chemistry, Georgia State University;
4. Poster Session Winner of 1st Center of Diagnostics and Therapeutics (CDT) Conference, Mar. 31, 2012, Department of Chemistry, Georgia State University.

职业相关

- Membership: Member of American Chemical Society, e-member of Royal Society of Chemistry
- Invited reviewer:
Langmuir; Nanoscale; Journal of Materials Chemistry C; Dalton Transactions; RSC Advances; Chemosensors; Colloids and Surfaces B: Biointerfaces.

发表论文 (Research ID: [H-3436-2011](#), Citation: ~300)

博士+博士后:

1. N-Benzyl-2-[3,5-bis(benzyloxy)benzyloxy]benzamide,
Zheng-Hua Tang, Yu Tang* and Xiao-Ping Cao*
Acta. Cryst. **2007**, E63, O3283-U4136.
2. Synthesis, Crystal Structures and Luminescent Properties of Terbium, Neodymium and Yttrium Complexes with a New Amide Type Ligand,
Zheng-Hua Tang, Dian-Yi Liu, Yu Tang*, Xiao-Ping Cao*
Z. Anorg. Allg. Chem. **2008**, 634, 392-396.
3. Synthesis and Structural Determination of Multidentate 2,3-Dithiol-Stabilized Au Clusters,
Zhenghua Tang, Bin Xu, Baohua Wu, Markus W. Germann, and Gangli Wang*
J. Am. Chem. Soc. **2010**, 132, 3367-3374.
4. Monolayer Reactions of Protected Au Nanoclusters with Monothiol Tiopronin and 2,3-Dithiol Dimercaptopropanesulfonate,
Zhenghua Tang, Bin Xu, Baohua Wu, Donald A. Robinson, Nadia Bokossa and Gangli Wang*
Langmuir. **2011**, 27, 2989-2996.
5. Mixed Dithiolate Durene-DT and Monothiolate Phenylethanethiolate Protected Au₁₃₀ Nanoparticles with Discrete Core and Core-Ligand Energy States,
Zhenghua Tang, Donald A. Robinson, Nadia Bokossa, Bin Xu, Siming Wang and Gangli Wang*
J. Am. Chem. Soc. **2011**, 133, 16037-16044.
6. Near Infrared Luminescence of Gold Nanoclusters Affected by the Bonding of 1, 4- Dithiolate Durene and Monothiolate Phenylethanethiolate,

Zhenghua Tang, Tarushee Ahuja, Siming Wang and Gangli Wang*
Nanoscale, **2012**, *4*, 4119-4124.

7. Biomolecular Recognition Principles for Bionanocombinatorics: An Integrated Approach to Elucidate Enthalpic and Entropic Factors,

Zhenghua Tang,[#] J. Pablo Palafox-Hernandez,[#] Wing-Cheung Law, Zak E. Hughes, Mark T. Swihart, Paras N. Prasad,* Marc R. Knecht* and Tiffany R. Walsh*
ACS Nano **2013**, *7*, 9632-9646. (#: Co-first author)

8. Triggering Nanoparticle Surface Ligand Rearrangement via External Stimuli: Light-based Actuation of Biointerfaces,

Zhenghua Tang,[#] Chang-Keun Lim,[#] J. Pablo Palafox-Hernandez,[#] Kurt L. M. Drew, Yue Li, Mark T. Swihart, Paras N. Prasad,* Tiffany R. Walsh,* and Marc R. Knecht,*
Nanoscale **2015**, *7*, 13638-13645. (#: Co-first author)

9. Peptide-Mediated Synthesis of Gold Nanoparticles Effects of Peptide Sequence and Nature of Binding on Physicochemical Properties,

Yue Li,[#] **Zhenghua Tang**,[#] Paras N. Prasad, Marc R. Knecht* and Mark T. Swihart*
Nanoscale **2014**, *6*, 3165-3172. (#: Co-first author)

10. Comparative Study of Materials-Binding Peptide Interactions with Gold and Silver Surfaces and Nanostructures: A Thermodynamic Basis for Biological Selectivity of Inorganic Materials,

J. Pablo Palafox-Hernandez,[#] **Zhenghua Tang**,[#] Zak E. Hughes,[#] Yue Li, Mark T. Swihart, Paras N. Prasad, Tiffany R. Walsh,* and Marc R. Knecht*
Chem. Mater. **2014**, *26*, 4960-4969. (#: Co-first author)

11. Bimetallic (Iron or Cobalt) Complexes Bearing

2-Methyl-2, 4-bis(6- iminopyridin-2-yl)-1H-1,5-benzodiazepines for Ethylene Reactivity,

Shu Zhang, Igor Vystorop, **Zhenghua Tang**, and Wen-Hua Sun*
Organometallic, **2007**, *26*, 2456-2460.

12. Fluorescence Intensity and Lifetime Cell Imaging with Luminescent Gold Nanoclusters,

Jian Zhang,* Yi Fu, Conroy R. Cecil, **Zhenghua Tang**, Ge Li, Richard Y. Zhao, Joseph R. Lakowicz, and Gangli Wang*
J. Phys. Chem. C **2012**, *116*, 26561-26569.

13. Enhancing Near IR Luminescence of Thiolate Au Nanoclusters by Thermo Treatments and Heterogeneous Subcellular Distributions,

Cecil V. Conroy, Jie Jiang, Chen Zhang, Tarushee Ahuja, **Zhenghua Tang**, Cherish A. Prickett, Jenny J. Yang and Gangli Wang*
Nanoscale **2014**, *6*, 7416-7423.

14. Identifying Affinity Classes of Inorganic Materials Binding Sequences via a Graph-based Model,

Nan Du, Marc R. Knecht, Mark T. Swihart, **Zhenghua Tang**, Tiffany R. Walsh, and Aidong Zhang*

IEEE/ACM Trans. Comput. Biol. Bioinf. **2015**, *12*, 193-204.

15. Electronic Coupling between Ligand and Core Energy States in Dithiolate-Monothiolate Stabilized Au Clusters,

Tarushee Ahuja, Dengchao Wang, **Zhenghua Tang**, Donald Robinson, Jonathan Padelford and Gangli Wang*

Phys. Chem. Chem. Phys. **2015**, *17*, 19342-19347.

到华工工作以后:

16. Porous metallic MoO₂-Supported MoS₂ Nanosheets for Enhanced Electrocatalytic Activity in the Hydrogen Evolution Reaction,

Linjing Yang, Weijia Zhou,* Dongman Hou, Kai Zhou, Guoqiang Li, **Zhenghua Tang**, Ligui Li and Shaowei Chen*

Nanoscale **2015**, *7*, 5203-5208.

17. N-doped Carbon Wrapped Cobalt Nanoparticles on N-doped Graphene Nanosheets for High-Efficiency Hydrogen Production,

Weijia Zhou,* Jian Zhou, Yucheng Zhou, Jia Lu, Kai Zhou, Linjing Yang, **Zhenghua Tang**, Ligui Li, and Shaowei Chen*

Chem. Mater. **2015**, *27*, 2026-2032.

18. Mesoporous N-Doped Carbons Prepared with Thermally Removable Nanoparticle Templates: an Efficient Electrocatalyst for Oxygen Reduction Reaction,

Wenhan Niu, Ligui Li,* Xiaojun Liu, Nan Wang, Ji Liu, Weijia Zhou, **Zhenghua Tang**, and Shaowei Chen*

J. Am. Chem. Soc. **2015**, *137*, 5555-5562.

专利

Monolayer Protected Nanoclusters and Methods of Making and Using Thereof,

Wang Gangli, **Tang Zhenghua**, Conroy Cecil and Ahuja Tarushee.

US Patent, Application No.: PCT/US2013/041144.

口头学术报告

1. Center of Diagnostics and Therapeutics (CDT) Seminar Series,
Department of Chemistry, Georgia State University, Nov. 21, 2011.

Control the Surface Functionalities of Gold Nanoparticles for Biomedical Applications;

2. The 4th Annual Chemistry Department Poster Day Platform Presentation,
Department of Chemistry, Georgia State University, Feb. 18, 2012.

Control the Surface Functionalities of Gold Nanoparticles for Biomedical Applications.

3. Biomolecular Recognition Principles for Bionanocombinatorics: An Integrated Approach to Elucidate Enthalpic and Entropic Factors,

Dallas Convention Center, 247th ACS National Meeting, Dallas, Texas, Mar. 20, 2014.

参加学术会议

1. 238th America Chemical Society National Meeting, Washington, DC, Aug. 16-20, 2009.
Synthesis and Structural Determination of Multidentate 2, 3-Dithiol-Stabilized Au Clusters,
Zhenghua Tang, Bin Xu, Baohua Wu, Markus W. Germann, and Gangli Wang*
2. Georgia State Biotechnology Symposium 2010, Atlanta, GA, Dec. 3, 2010.
Surface Functionalizations of Protected Au Nanoclusters,
Zhenghua Tang, Bin Xu, Baohua Wu, Donald A. Robinson, Nadia Bokossa, and Gangli Wang*
3. 2011 Pittcon Conference & Exposition, Atlanta, GA, Mar. 13-18, 2011.
Mixed Dithiol Durene and Monothiol Phenylethanethiol Protected Au₁₃₀ Clusters with Discrete Absorption Bands,
Zhenghua Tang, Donald A. Robinson, Nadia Bokossa, Bin Xu, Siming Wang and Gangli Wang*
4. 40th Southeastern Magnetic Resonance Conference, Georgia State University, Atlanta, GA, Nov. 4-6, 2011.
Molecular and Electronic Structures of Au₁₃₀ Nanoparticles by Electrochemical Techniques, Nuclear Magnetic Resonance (NMR) and Electron Paramagnetic Resonance (EPR).
Zhenghua Tang, Jiafeng Geng, Bin Xu, Aimin Liu, and Gangli Wang*
5. 1st Center of Diagnostics and Therapeutics (CDT) Conference, Georgia State University, Atlanta, GA, Mar. 31, 2012.
Synthesis, Characterization and Biomedical Applications of Gold Nanoclusters with Novel Property Tuned by Interfacial Bonding Structure,
Zhenghua Tang, Jian Zhang, and Gangli Wang*

社会服务

Apr. 2010-Mar. 2012:

Vice president (2010-2011), Treasurer (2011-2012) and Analytical division representative (2010-2012) of Chemistry Graduate Student Association (CGSA) at Georgia State University.

推荐人

Prof. Gangli Wang, Department of Chemistry, Georgia State University,

Phone: 404-413-5507, glwang@gsu.edu;

Distinguished Prof. Jenny J. Yang, Department of Chemistry, Georgia State University,

Phone: 404-413-5520, the-cherry@gsu.edu;

Prof. Marc Knecht, Department of Chemistry, University of Miami,

Phone: 305-284-9351, knecht@miami.edu.