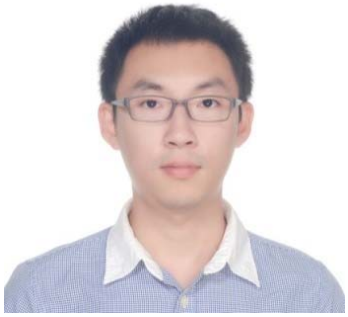
周寅宁



工学博士，特别研究员，博导
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教育背景

2012.09-2015.12　上海交通大学，应用化学专业，博士，导师：罗正鸿 教授
2009.09-2012.07　厦门大学，化学工艺专业，硕士，导师：罗正鸿 教授
2005.09-2009.07　天津科技大学，化学工程与工艺专业，学士，导师：吴燕 教授

工作经历

2018.10-至今　上海交通大学化学化工学院，特别研究员(tenure-check associate professor)，博士生导师
2016.07-2018.07　McMaster University，化学工程系，博士后，合作导师：Professor Shiping Zhu (朱世平 教授，加拿大皇家科学院、工程院院士)
2015.12-2018.10　上海交通大学，化学工程系，博士后，合作导师：罗正鸿/赵亚平 教授 (入选2016年海外博士后师资储备项目)

研究领域

1. 聚合反应工程（先进聚合技术与工程、聚合反应机理、反应动力学、数值模拟）
2. 聚合产品工程（智能/功能聚合物的设计及精确合成，及其在反应与分离中的应用）

科研项目

1. **国家自然科学基金青年基金项目**，21606048，《铁催化的光调控原子转移自由基聚合及产品工程研究》，2017/01-2019/12，20万元，在研，**主持**
2. **中国博士后科学基金特别资助**，2017T100299，《二氧化碳气体调控的原子转移自由基聚合》，2017/08-2018/07，15万元，已结题，**主持**
3. **中国博士后科学基金面上资助（一等）**，2016M600316，《二氧化碳刺激响应含氟功能高分子材料的制备及其应用》，2016/08-2018/07，8万元，已结题，**主持**
4. 国家自然科学基金联合基金项目，U1462101，《多尺度层次下的循环流化床中甲醇定向转化制烯烃过程的化学工程研究》，2015/01-2017/12，70万元，已结题，参与
5. 国家自然科学基金面上项目，21276213，《功能导向的"亚"两亲性"氟硅"嵌段聚合物结构与自组装形貌同时定制研究》，2013/01-2016/12，78万元，已结题，参与
6. 化工过程先进控制和优化技术教育部重点实验室开放课题，《聚丙烯组合反应器运行过程建模、优化与健康监控技术》，2013/01-2014/12，4万元，已结题，参与

获奖情况

2017 上海交通大学博士后年度考核优秀奖
2016 上海交通大学博士后年度考核优秀奖
2015 博士研究生国家奖学金
2015 美国化学学会会员奖
2014 中国石化联合会科技进步二等奖（4/5，第一学生获奖人）
2014 博士研究生国家奖学金
2013 博士研究生优秀奖学金
2013 上海交通大学优秀团员奖
2012 博士研究生优秀新生奖学金
2011 厦门大学三好学生

发表论文

第一及通讯作者:

1. **Yin-Ning Zhou**, Jin-Jin Li, Darko Ljubic, Zheng-Hong Luo,* Shiping Zhu* Mechanically Mediated Atom Transfer Radical Polymerization: Exploring its Potential at High Conversion. *Macromolecules* **2018,** 51, 6911–6921.
2. Jin-Jin Li, **Yin-Ning Zhou**,* Zheng-Hong Luo* Polymeric Materials with Switchable Superwettability for Controllable Oil/water Separation: A Comprehensive Review. *Progress in Polymer Science* **2018**, 87, 1-33.
3. **Yin-Ning Zhou**, Lei Lei, Zheng-Hong Luo*, Shiping Zhu*, CO_2/N_2-Switchable Thermoresponsive Ionic Liquid Copolymer. *Macromolecules* **2017**, 50, 8378-8389.
4. **Yin-Ning Zhou**, Zheng-Hong Luo*. Assessment of Kinetics of Photoinduced Fe-based Atom Transfer Radical Polymerization under Conditions Using Modeling Approach. *AIChE Journal* **2017**, 63, 4987-4997.
5. **Yin-Ning Zhou,** Jun-Kang Guo, Jin-Jin Li, Zheng-Hong Luo*. Photoinduced Iron(III)-Mediated Atom Transfer Radical Polymerization with In Situ Generated Initiator: Mechanism and Kinetics Studies. *Industrial & Engineering Chemistry Research* **2016**, 55, 10235-10242.
6. **Yin-Ning Zhou**, Jin-Jin Li, Zheng-Hong Luo*. Toward Efficient Water/Oil Separation Material: Effect of Copolymer Composition on pH-Responsive Wettability and Separation Performance. *AIChE Journal* **2016**, 62, 1758-1771.
7. **Yin-Ning Zhou**, Zheng-Hong Luo*. State-of-the-art and Progress in Method of Moments for the Model-based Reversible-Deactivation Radical Polymerization. *Macromolecular Reaction Engineering* **2016**, 10, 516-534. (综述论文, **Highlighted by Materials views and Materials views China**)
8. **Yin-Ning Zhou**, Jin-Jin Li, Zheng-Hong Luo*. PhotoATRP-based Fluorinated Thermo-Sensitive Block Copolymer for Controllable Water/Oil Separation. *Industrial & Engineering Chemistry Research* **2015**, 54, 10714−10722.
9. **Yin-Ning Zhou**, Zheng-Hong Luo*. An Old Kinetic Method for a New Polymerization Mechanism: Toward Photochemically Mediated ATRP. *AIChE Journal* **2015**, 61, 1947-1958.
10. **Yin-Ning Zhou**, Zhi-Chao Chen, Chuan Wei, Zheng-Hong Luo*. A Tandem Controlled Radical Polymerization Technique for the Synthesis of Poly(4-vinylpyridine) Block Copolymers: Successive ATRP, SET-NRC and NMP. *Macromolecular Chemistry and Physics* **2015**, 216, 329-333.
11. **Yin-Ning Zhou**, Zheng-Hong Luo*. Copper(0)-Mediated Reversible-Deactivation Radical Polymerization: Kinetics Insight and Experimental Study. *Macromolecules* **2014**, 47, 6218-6229.

12. **Yin-Ning Zhou,** Jin-Jin Li, Qing Zhang, Zheng-Hong Luo*. A Novel Fluorinated Polymeric Product for Photo-Reversibly Switchable Hydrophobic Surface. *AIChE Journal* **2014**, 60, 4211-4221. (**亮点论文**)
13. **Yin-Ning Zhou**, Jin-Jin Li, Qing Zhang, Zheng-Hong Luo*. Light-Responsive Smart Surface with Controllable Wettability and Excellent Stability. *Langmuir* **2014**, 30, 12236-12242.
14. **Yin-Ning Zhou**, Qing Zhang, Zheng-Hong Luo*. A light and pH Dual-Stimuli-Responsive Block Copolymer Synthesized by Copper(0)-Mediated Living Radical Polymerization: Solvatochromic, Isomerization and "Schizophrenic" Behaviors. *Langnuir* **2014**, 30, 1489-1499.
15. **Yin-Ning Zhou,** Zheng-Hong Luo*. Insight into the ATRP Rate Controlling Ability of Initiator Structure: Micro-molecular, Macro-molecular and Immobilized Initiators. *Journal of Polymer Science Part A: Polymer Chemistry* **2014**, 52, 2228-2238. (**封面论文**)
16. **Yin-Ning Zhou**, Zheng-Hong Luo*. Facile Synthesis of Gradient Copolymers via Semi-batch Copper(0)-Mediated Living Radical Copolymerization at Ambient Temperature. *Polymer Chemistry* **2013**, 4, 76-84. (**封面论文**)
17. **Yin-Ning Zhou**, Hua Cheng, Zheng-Hong Luo*. A Novel Method for Preparing Silver/Poly(siloxane-b-methyl methacrylate) Nanocomposites with Multiple Properties in the DMF-Toluene Mixture Solvent. *AIChE Journal* **2013**, 59, 4780-4793.
18. **Yin-Ning Zhou**, Zheng-Hong Luo*, Jian-Hua Chen. Theoretical Modeling Coupled with Experimental Study on the Preparation and Characterization Comparison of Fluorinated Copolymers: Effect of Chain Structure on Copolymer Properties. *AIChE Journal* **2013**, 59, 3019-3033.
19. **Yin-Ning Zhou**, Jin-Jin Li, Zheng-Hong Luo*. Synthesis of Gradient Copolymers with Simultaneously Tailor-Made Chain Composition Distribution and Glass Transition Temperature by Semibatch ATRP: From Modeling to Application. *Journal of Polymer Science Part A: Polymer Chemistry* **2012**, 50, 3052-3066.
20. **Yin-Ning Zhou**, Hua Cheng, Zheng-Hong Luo*. Fluorinated AB Diblock Copolymers and Their Aggregates in Organic Solvents. *Journal of Polymer Science Part A: Polymer Chemistry* **2011**, 49, 3647-3657.
21. **Yin-Ning Zhou**, Cheng-Mei Guan, Zheng-hong Luo*. Kinetic Modeling of Two-step RAFT Process for the Production of Novel Fluorosilicone Triblock Copolymers. *European Polymer Journal* **2010**, 46, 2164-2173.
22. **Yin-Ning Zhou (周寅宁)**, Zheng-Hong Luo (罗正鸿)*. Kinetic Modeling of Atom Transfer Radical Polymerization. *Polymer Bulletin*（*高分子通报*）**2013**, 8, 1-12. (中文综述论文)

其它:

1. Meng Li, Qi Zhang, **Yin-Ning Zhou**, Shiping Zhu* Let Spiropyran Help Polymers Feel Force! *Progress in Polymer Science* **2018**, 79, 26-39.
2. Chao Bian, **Yin-Ning Zhou**, Jun-Kang Guo, Zheng-Hong Luo* Aqueous Metal-Free Atom Transfer Radical Polymerization: Experiments and Model-Based Approach for Mechanistic Understanding. *Macromolecules* **2018**, 51, 2367-2376.
3. Jun-Kang Guo, **Yin-Ning Zhou**, Zheng-Hong Luo* Iron-based Electrochemically Mediated Atom Transfer Radical Polymerization with Tunable Catalytic Activity. *AIChE Journal* **2018**, 64, 961-969.
4. Dan Liu,* **Yin-Ning Zhou**, Jilian Zhao, Yaling Xu, Jingfei Shen, Minggang Wu. An Intensive Green Emitting Terbium Complex Using A Newly Designed Aromatic Hyperbranched Polyester as An Efficient Antenna Ligand. *Journal of Materials Chemistry C* **2017**, 5, 11620-11630.
5. Chao Bian, **Yin-Ning Zhou**, Jun-Kang Guo, Zheng-Hong Luo*. Photoinduced Fe-mediated Atom Transfer Radical Polymerization in Aqueous Media. *Polymer Chemistry* **2017**, 8, 7360-7368.
6. Jin-Jin Li, **Yin-Ning Zhou**, Zheng-Hong Luo*. Mussel-inspired V-shaped Copolymer Coating for Intelligent Oil/Water Separation. *Chemical Engineering Journal* **2017**, 322, 693-701.

7. Chao Bian, **Yin-Ning Zhou**, Jun-Kang Guo, Zheng-Hong Luo*. Visible-Light-Induced Atom-Transfer-Radical Polymerization with a ppm-Level Iron Catalyst. *Industrial & Engineering Chemistry Research* **2017**, 56, 4949-4956.

8. Jin-Jin Li, **Yin-Ning Zhou**, Zhi-Dong Jiang*, Zheng-Hong Luo*. Electrospun Fibrous Mat with pH-Switchable Superwettability That Can Separate Layered Oil/Water Mixtures. *Langmuir* **2016**, 32, 13358-13366.

9. Zhi-Chao Chen, Bo-Chao Zhu, Jin-Jin Li, **Yin-Ning Zhou**, Zheng-Hong Luo*. Dual-Responsive Copolymer Poly(2, 2, 3, 4, 4, 4-hexafluorobutyl methacrylate)-Block-Poly [2-(dimethylamino) ethyl methacrylate] Synthesized via PhotoATRP for Surface with Tunable Wettability. *Journal of Polymer Science Part A: Polymer Chemistry* **2016**, 54, 3868-3877.

10. Jun-Kang Guo, **Yin-Ning Zhou**, Zheng-Hong Luo*. Kinetic Insights into the Iron-Based Electrochemically Mediated Atom Transfer Radical Polymerization of Methyl Methacrylate. *Macromolecules* **2016** 49, 4038-4046.

11. Jun-Kang Guo, **Yin-Ning Zhou**, Zheng-Hong Luo*. Kinetic Insight into Electrochemically Mediated ATRP Gained through Modeling. *AIChE Journal* **2015**, 61, 4347-4357.

12. Jin-Jin Li, **Yin-Ning Zhou**, Zheng-Hong Luo*. Smart Fiber Membrane for pH-induced Oil/Water Separation. ACS Applied Materials & Interfaces **2015**, 7, 19643-19650.

13. Wei Wang, **Yin-Ning Zhou**, Zheng-Hong Luo*. Modeling of the ATRcoP Processes of Methyl Methacrylate and 2-(Trimethylsilyl) Ethyl Methacrylate in Continuous Reactors: From CSTR to PFR. *Macromolecular Reaction Engineering* **2015**, 9, 418-430. (Invited article)

14. Wei Wang, **Yin-Ning Zhou**, Zheng-Hong Luo*. Kinetic Modeling of Atom Transfer Radical Copolymerization of Methyl Methacrylate and 2-(Trimethylsilyl) Ethyl Methacrylate in a Train of Continuous Stirred-Tank Reactors. *Polymer Engineering & Science* **2015**, 55, 1030-1038.

15. Ping Wang, **Yin-Ning Zhou**, Jiang-Shui Luo, Zheng-Hong Luo*. Poly(ionic liquid)s-based Nanocomposite Polyeletrolytes with Tunable Ionic Conductivity Prepared via SI-ATRP. *Polymer Chemistry* **2014**, 5, 882-891.

16. Jin-Jin Li, Jian-Jian Wang, **Yin-Ning Zhou**, Zheng-Hong Luo*. Synthesis and Characterization of Polyfluorene-based Photoelectric Materials: the Effect of Coil Segment on the Spectral Stability. *RSC Advances* **2014**, 4, 19869-19877.

17. Wei Wang, **Yin-Ning Zhou**, Zheng-Hong Luo*.Modeling of the Atom Transfer Radical Copolymerization Processes of Methyl Methacrylate and 2-(Trimethylsilyl) Ethyl Methacrylate under Batch, Semibatch, and Continuous Feeding: A Chemical Reactor Engineering Viewpoint. *Industrial & Engineering Chemistry Research* **2014**, 53, 11873-11883.

18. Jin-Jin Li, **Yin-Ning Zhou**, Zheng-Hong Luo*. Thermo-responsive Brush Copolymers with Structure-tunable LCST and Switchable Surface Wettability. *Polymer* **2014**, 55, 6552-6560.

19. Jin-Jin Li, **Yin-Ning Zhou**, Zheng-Hong Luo*. Thermal-Responsive Block Copolymers for Surface with Reversible Switchable Wettability. *Industrial & Engineering Chemistry Research* **2014**, 53, 18112-18120.

20. Yao Huang, **Yin-Ning Zhou**, Qing Zhang,* Zheng-Hong Luo. Modeling of the Atom Transfer Radical Polymerization for Preparing Novel Fluorosilicone Diblock Copolymers in a Semi-Batch Reactor. *Journal of Applied Polymer Science* **2013**, 130, 3473-3481.

21. Jian-Jian Wang, **Yin-Ning Zhou**, Ping Wang, Zheng-Hong Luo*. The Synthesis and Enhancement of the Surface Properties of Polyfluorene-based Photoelectric Materials by Introducing Fluoromonomers. *RSC Advances* **2013**, 3, 5045-5055.

22. Hua Cheng, **Yin-Ning Zhou**, Zheng-Hong Luo*. Enhanced Understanding and Implementation of the Self-assembly of Fluorosilicone Double-Hydrophobic Diblock Copolymers in Dilute Solutions from

Thermodynamic Perspective: the Effect of Different Preparation Factors. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* **2013**, 436, 990-999.

23. Jin-Jin Li, **Yin-Ning Zhou**, Zheng-Hong Luo*. Synthesis and pH-Responsive Micellization of Brush Poly(methyl methacrylate-co-2-(2-bromo- isobutyryloxy)ethyl methacrylate)-graft-acrylic acid): Role of Composition Profile. *Soft Matter* **2012**, 8, 11051-11061. (**封面论文**)

学术会议报告

1. **周寅宁**，罗正鸿，朱世平， 超声调控原子转移自由基在高转化率下的聚合动力学研究，全国高分子材料科学与工程研讨会，中国杭州，2018 年 10 月 (口头报告)

2. **周寅宁**，罗正鸿，可控聚合反应动力学模型化研究，第十一届海峡两岸化学工程学术研讨会，中国太原，2018 年 8 月（口头报告）

3. **Yin-Ning Zhou,** Zheng-Hong Luo, Shiping Zhu. CO_2/N_2-Switchable Thermoresponsive Ionic Liquid Copolymer. 2017 PolyMac Conference, Hamilton, ON, Canada, Dec. 2017 (口头报告)

4. **Yin-Ning Zhou,** Zheng-Hong Luo. Effect of Copolymer Composition on pH-Responsive Wettability and Water/Oil Separation Performance. 8th Sino-US Joint Conference of Chemical Engineering, Shanghai, China, Oct. 2015 (口头报告)

5. **Yin-Ning Zhou,** Zheng-Hong Luo. Programmed Design and Synthesis of Fluorinated Gradient Copolymer for Photo-Reversibly Switchable Hydrophobic Surface. 14AIChE Annual Meeting, Atlanta, GA, USA Nov. 2014 (Abstract: https://aiche.confex.com/aiche/2014/webprogram/Paper361967.html) (墙报)

6. **周寅宁**，李锦锦，罗正鸿，A General Approach to Structure-Property Relationship: From ATPR Modeling to Advanced Polymer Application. 全国高分子材料科学与工程研讨会，中国成都，2014 年 10 月 (口头报告)

7. **周寅宁**，李锦锦，罗正鸿，Model-Based Synthesis of Gradient Copolymers by Semibatch ATRP: From Modeling to Application. 全国高分子材料科学与工程研讨会，中国武汉，2012 年 10 月 (口头报告)

授权发明专利

1. 罗正鸿，李锦锦，**周寅宁**，一种具有 pH 响应性的两嵌段聚合物，2018.04.04，中国，专利号：ZL201510395864.2

2. 张青，张沛怡，张诣卓，**周寅宁**，罗正鸿，一种对紫外光有响应特性的高分子水性涂料，2016.08.17，中国，专利号：ZL201410270281.2

3. 罗正鸿，**周寅宁**，张青，一种具有光和 pH 响应特性的两嵌段共聚物及其制备方法，2016.03.23，中国，专利号：ZL201410012116.7

4. 罗正鸿，**周寅宁**，李锦锦，一种具有低表面能及光控润湿特性的梯度分子刷聚合物及其制备方法，2016.02.03，中国，专利号：ZL201410023114.8