

邱彤



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教育背景:

- 1990.8—1995.7 清华大学化工系, 获化学工程与工艺专业工学学士学位
- 1992.8—1995.7 清华大学经济管理学院, 获企业管理专业第二学士学位
- 1995.8—2000.7 清华大学化工系, 获化学工程与技术工学博士学位

研究方向:

- 乙烯裂解过程机理建模与模拟
- 化工流程动态模拟与优化
- 炼油过程分子管理研究
- 过程模拟与稳定性分析
- 生物燃料的全生命周期分析、能源经济研究
- 过程大数据分析与校正

负责/骨干科研项目:

1. 国家自然科学基金重点项目“炼油过程分子管理的基础理论研究”
2. 国家973计划“化工过程物质与能量高效利用的集成优化基础研究”
3. 国家十二五科技支撑“百万吨级乙烯成套工艺技术、关键装备研发及示范应用”
4. 国家十一五科技支撑“石化行业节能减排技术筛选与评估”
5. 中石油国产化重大专项“石油烃裂解产物预测系统应用开发”课题
6. 独山子石化科研课题“乙烯装置开停车过程优化技术研究”
7. 兰州石化科研课题“兰州石化46万吨/年乙烯装置裂解炉模拟与优化应用”

部分获奖:

1. 2016年, 国家科技进步二等奖, “大型乙烯装置成套工艺技术、关键装备与工业应用”
2. 2015年, 甘肃省科技进步二等奖, “兰州石化乙烯裂解炉模拟优化技术与工业应用”
3. 2014年, 中国石油和化学工业联合会科技进步一等奖, “化工与石化重点行业节能减排技术筛选与评估”
4. 2013年, 中国石油和化学工业联合会科技进步一等奖, “化工过程安全管理智能软件平台关键技术开发与应用”
5. 2008年, 中石油天集团科学技术进步一等奖, “乙烯裂解炉模拟优化系统软件开发及工业应用”,
6. 2008年, 中国石油和化学工业科技进步一等奖, “石化企业生产计划图形建模优化系统”

近期论文发表:

1. Zhou Fang, **Tong Qiu**, Bingzhen Chen. Improvement of ethylene cracking reaction network with network flow analysis algorithm. *Computers & Chemical Engineering*, 2016, 91: 182-194.
2. Shengfu Zhang, Yongchen Zhao, **Tong Qiu**, Guang Song, Jinsong Zhao. A Method to Refine the Start-up Scheme of Compression and Refrigeration Systems in Ethylene Plants via Dynamic Simulation. *Chinese Journal of Chemical Engineering*, 2016, 24: 1007-1012.
3. Lei Luo, Nan Zhang, Zhi Xia, **Tong Qiu**. Dynamics and stability analysis of gas-phase bulk polymerization of propylene. *Chemical Engineering Science* 2016, 143: 12-22
4. Lei Luo, **Tong Qiu**, Jinsong Zhao. Process optimization of the polymerization of propylene under parametric disturbances. 7th International Conference on Process Systems Engineering (PSE ASIA), 2016, 24-27 July. Tokyo Japan.
5. Guang Song, **Tong Qiu**, Bingzhen Chen. Improved Resource-Task Network-Based Flare Minimization Model for Ethylene Plant Start-up: Rigorous Treatment of Cracking Furnace and High-Pressure Steam. *Industrial & Engineering Chemistry Research*, 2015, 54 (24): 6326-6333.
6. Weiguo Zhou, **Tong Qiu**. Zone modeling of radiative heat transfer in industrial furnaces using adjusted Monte-Carlo integral method for direct exchange area calculation. *Applied Thermal Engineering*. 2015, 81: 161-167.
7. Nan Zhang, **Tong Qiu**, Bingzhen Chen. Bifurcation control and eigenstructure assignment in continuous solution polymerization of vinyl acetate. *Chinese Journal of Chemical Engineering*, 2015, 23(9): 1523-1529.
8. Yongchen Zhao, Jian Zhang, **Tong Qiu**, Jinsong Zhao, Qiang Xu. Flare Minimization during Start-Ups of an Integrated Cryogenic Separation System via Dynamic Simulation. *Industrial & Engineering Chemistry Research*. 2014, 53 (4), 1553-1562
9. Zhexuan Liu, **Tong Qiu**, Bingzhen Chen. A study of the LCA based biofuel supply chain multi-objective optimization model with multi-conversion paths in China. *Applied Energy*, 2014, 126(C): 221-234.
10. Zhexuan Liu, **Tong Qiu**, Bingzhen Chen. A LCA Based Biofuel Supply Chain Analysis Framework. *Chinese Journal of Chemical Engineering*, 2014, 22(6): 669-681.
11. Guang Song, **Tong Qiu**, Jinsong Zhao. Flare Minimization Model for Ethylene Splitter System's Shutdown. *Industrial & Engineering*

- Chemistry Research. 2013, 52(26), 9180-9188
12. Nan Zhang, **Tong Qiu**, Bingzhen Chen. CFD Simulation of Propane Cracking Tube Using Detailed Radical Kinetic Mechanism. Chinese Journal of Chemical Engineering, 2013, 21 (12): 1319-1331.