CURRICULUM VITAE

Qiang Xu, Ph.D.

Professor, University Scholar & Distinguished Faculty Research Fellow
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Professional Preparation

B.S. in Chemical Engineering, Tsinghua University, China, 1998
B.S. in Environmental Engineering, Tsinghua University, China, 1998
Ph.D. in Chemical Engineering, Tsinghua University, China, 2003
Post-doctoral Research Associate, Wayne State University, Detroit, Michigan, 3/2003-8/2005

Appointments

Sep. 2015 – present, professor, Lamar University, Beaumont, Texas
Sep. 2010 – Aug. 2015, associate professor, Lamar University, Beaumont, Texas
Sep. 2005 – Aug. 2010, assistant professor, Lamar University, Beaumont, Texas

Honors and Awards

- Excellence in Process Development Research Award, AIChE, 2016
- Leading PI of one Lamar University President Visionary Project, 2016
- Best Graduate Student Paper Award, AIChE Environmental Division, 2016
- Advisor of Graduate Student receiving NSF Travel Award, FOCAPO/CPC 2017, Tucson, Arizona, 2017
- Distinguished Faculty Research/Creative Activity Fellows, Lamar University, 2015
- Visiting Chair Professorship, East China University of Science and Technology, since 2014
- Advisor of Graduate Student receiving NSF Travel Award, FOCAPD 2014, Cle Elum, Washington, 2014
- Advisor of Graduate Student receiving NSF Travel Award, Workshop on Shale Gas Monetization, Montgomery, Texas, 2014
- Best Student Paper Award, CAPA (Chinese American Petroleum Association), 2014
- Best Graduate Student Paper Award, AIChE Environmental Division, 2013
- Best Student Paper Award, CAPA, 2013
- University Scholar, Lamar University, 2012
- Best Graduate Student Paper Award, AIChE Process Development Division, 2012
- Best Student Paper Award, CAPA, 2012
- NSF Young Researcher Travel Award, FOCAPO 2012 Conference, 2012
- Advisor of Graduate Student receiving Young Researcher Travel Award, FOCAPO 2012 Conference, 2012
- Visiting Lecture Professorship, Yunnan University, since 2011
- Best Graduate Student Paper Award, AIChE Process Development Division, 2011

- University Merit Award, Lamar University, 2010
- Best Graduate Student Paper Award, AIChE Process Development Division, 2010
- Best Graduate Student Paper Award, AIChE Environmental Division, 2010
- Best Graduate Student Paper Award, AIChE Sustainable Engineering Forum, 2010
- NSF Young Faculty Travel Award, FOCAPD 2009, 2009
- Advisor of Graduate Student receiving NSF Student Travel Award, FOCAPD 2009, 2009
- National Outstanding Achievement Award for Ethylene Manufacturing, Chinese Ministry of Education, 2004
- Software Patent for Naphtha Pyrolysis, National Copyright Administration of China, 2004
- Outstanding Ph.D. Dissertation Award, Tsinghua University, 2004
- ExxonMobil Fellowship, 2002
- Toshiba Fellowship, 2001
- Outstanding Student Award, Beijing City, 2001
- 10 Best Ph.D. Students Award, Tsinghua University, 2001

Current Primary Research Interests

- Chemical Process Modeling, Simulation, Optimization and Synthesis
- Production Planning and Scheduling
- Industrial Flare Minimization and Waste Minimization
- Chemical Plant Safety and Flexibility Analysis
- Regional Air-quality Modeling and Control

Course Taught at Lamar University

- Undergraduate Courses
  - CHEN 4331 Process Control I
  - CHEN 4150 Process Control Lab
  - ENGR 4301 Process Simulation
  - ENGR 4301 Air-quality Control
  - ENGR 4301 Fundamental of Engineering Review
- Graduate Courses
  - CHEN 6345 Sustainability
  - CHEN 6348 Advanced Engineering Mathematics
  - CHEN 6301 Dynamic Simulation for Flare Minimization
  - CHEN 6301 Advanced Modeling and Computational Methods
  - CHEN 6301 Matlab & Engineering Application
  - CHEN 6301 Chemical Plant Start-up Simulation
  - CHEN 6301 Ethylene Plant Turnaround Simulation
  - CHEN 6301 Turnaround Simulation for Flare Minimization
  - CHEN 6301 CFD Modeling
  - CHEN 6380 Ph.D. Student Research
  - CHEN 6680 Ph.D. Student Research
  - CHEN 6690 Ph.D. Student Dissertation
  - CHEN 6691 Ph.D. Student Dissertation II
  - ENGR 6110 Graduate Professional Seminar
  - ENGR 6368 Artificial Neural Networks

  - ENGR 5390 Master Student Thesis
  - ENGR 5391 Master Student Thesis II
  - ENGR 6601 Engineering Practice Field Study
  - ENGR 6602 Engineering Practice Field Study
  - ENGR 5301 Advanced Computational Methods I & II
  - ENGR 5301 Process Dynamic Simulation
  - ENGR 5361 Process Optimization
  - ENGR 5330 Computational Methods in Engineering Analysis
- Industrial Short Course
  - Dynamic Simulation and Control

Student Supervision at Lamar University

- **Advisor of Post doc and Visiting Scholars**
  - Jian Zhang (Fall 2008-present)
  - Zhenlei Wang (July 2014- February 2015, Professor, East China University of Science and Technology, China)
  - Wayne Chiu (June-October, 2015, Process Superintend, Chinese Petroleum Cooperation, Taiwan)
- **Advisor and Dissertation Chair of Ph.D. Students**
  - Chaowei Liu (graduated in December, 2010, MMI Engineering)
  - Xiongtao Yang (graduated in May, 2011, Bayer Material Science LLC)
  - Jie Fu (graduated in December, 2012, Bayer Material Science LLC)
  - Chuanyu Zhao (graduated in August, 2013, CB&I Lummus)
  - Meiqian Wang (graduated in August, 2013, MMI Engineering)
  - Tianxing Cai (graduated in December, 2014, Lamar University)
  - Ha Dinh (graduated in August, 2015, UOP)
  - Ziyuan Wang (graduated in May, 2016, Schneider Electric, co-supervision with Prof. Thomas C. Ho)
  - Shujing Zhang (graduated in May, 2016, Evidera)
  - Albert Odell
  - Liwen Chen
  - Min Chen
  - Honglin Qu
  - Jialin Xu
  - Cuixia Xu
  - Yiling Xu
  - Sijie Ge
  - Xingchun Wang
- **Advisor and Dissertation Chair of Doctoral Engineering Students**
  - Yogesh M. Kurle (graduated in December, 2015)
  - Md A. Mahmud
  - Mozammel Mazumder
- **Advisor and Thesis Chair of Master Students**
  - Ramon O. Romero (graduated in December, 2007, ExxonMobil)
  - Yanqin Wen (graduated in August, 2010)
  - Vibhor Mittal (graduated in May, 2011, Foster Wheeler)

- Tianxing Cai (graduated in August, 2012, Lamar University)
- Ching-Lung Ni (graduated in August, 2014, Georgia-Pacific LLC)
- Sravya Suryadevara (graduated in August, 2014, IBM in India)
- Mohammed A. Muqeet (graduated in December, 2014, RFID PASS)
- Md. Emdadul Haque (graduated in December, 2015)
- Prathamesh A Purohit
- Mhd Amjad Abou Shama

- **Advisor of Undergraduate Students**
  - Yichen Chen (graduated in May, 2010)
  - Yuan Zhang (graduated in May, 2011)
  - Baibing Zheng (graduated in May, 2011)
  - Chuan Xia (graduated in May, 2013)

Supervision Achievements as Academic Advisor

1. Advisor for NSF Graduate Student Travel Grant for attending FOCAPO/CPC 2017.
   Awardee: Min Chen
   For the Paper: Chen, M., Qu, H. L., Xu, Q.*, "Two Dimension Cyclic Hoist Scheduling", Proceedings of FOCAPO/CPC 2017, paper #49, Tucson, Arizona, USA, 2017.
2. Advisor and Corresponding Author for the AIChE Environmental Division Graduate Student Paper Award, 2016.
   Awardee: Ziyuan Wang
   Awarded Paper: Wang, Z. Y., Wang S., Xu, Q.*, Ho, T. C., "Impacts of flare emissions from an ethylene plant shutdown to regional air quality", *Atmospheric Environment*, 138, 22-41, 2016.
3. Advisor for Ph.D. student on a student paper contest award in 2014 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, which is held in Houston on September 26th, 2014.
   Awardee: Ziyuan Wang
   Awarded Paper: Wang, Z. Y., Xu, Q., Ho, Thomas, "Dynamic Simulation for An Ethylene Plant Shutdown Operation", 2014 CAPA Petroleum and Petrochemical Technical Symposium, Houston, Texas, September 26, 2014.
4. Advisor for NSF Graduate Student Travel Grant for attending FOCAPD 2014.
   Awardee: Ha Dinh
   For the Paper: Dinh, H., Xu, Q., "Coupling Refrigeration System Synthesis and Heat Exchanger Network Design", Proceedings of FOCAPD 2014, Cle Elum, Washington, July 13-17, 2014.
5. Advisor for NSF Graduate Student Travel Grant for attending FOCAPD 2014.
   Awardee: Tianxing Cai
   For the Paper: Cai, T.X., Wang, S. J., Xu, Q., "Monte Carlo Optimization for Site Selection of New Chemical Plants", Proceedings of FOCAPD 2014, Cle Elum, Washington, July 13- 17, 2014.
6. Advisor of my post doc wining NSF travel grant for attending NSF-Sponsored Short Course and Workshop on Shale Gas Monetization held in Montgomery, Texas during March 26-28, 2014.
   Awardee: Jian Zhang

7. Advisor of my graduate student wining NSF travel grant for attending NSF-Sponsored Short Course and Workshop on Shale Gas Monetization held in Montgomery, Texas during March 26-28, 2014.
   Awardee: Ziyuan Wang
8. Advisor of my graduate student wining NSF travel grant for attending NSF-Sponsored Short Course and Workshop on Shale Gas Monetization held in Montgomery, Texas during March 26-28, 2014.
   Awardee: Dinh Ha
9. Advisor of my graduate student wining NSF travel grant for attending NSF-Sponsored Short Course and Workshop on Shale Gas Monetization held in Montgomery, Texas during March 26-28, 2014.
   Awardee: Shujing Zhang
10. Advisor and Corresponding Author for the AIChE Environmental Division Graduate Student Paper Award, 2013.
    Awardee: TianXing Cai
    Awarded Paper: Cai, T. X., Wang, S. J. Xu, Q. "Scheduling of Multiple Chemical Plant Start-ups to Minimize Regional Air Quality Impacts", *Computers & Chemical Engineering*, 54, 68-78, 2013.
11. Advisor for Ph.D. student on a student paper contest award in 2013 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, which is held in Houston on Oct. 25th, 2013.
    Awardee: Shujing Zhang
    Zhang, S. J., Xu, Q. "Dynamic Simulation of An Ethylene Plant Startup for Flare Minimization: General Startup Plan and Scenario Studies", 2013 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, October 26, 2013.
12. Advisor for Ph.D. student on a student paper contest award in 2012 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, which is held in Houston on Oct. 26th, 2012.
    Awardee: Jie Fu
    Fu, J., Xu, Q. "Plant-wide Dynamic Modeling and Simulation for An Ethylene Plant", 2012 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, October 26, 2012.
13. Advisor and Corresponding Author for the AIChE Process Development Division Graduate Student Paper Award, 2012.
    Awardee: Meiqian Wang
    Awarded paper: Wang, M. Q., Zhang, J., Xu, Q., Li, K. Y. "Thermodynamic-Analysis-Based Energy Consumption Minimization for Natural Gas Liquefaction", *Industrial & Engineering Chemistry Research*, 50 (22), 12630–12640, 2011.
14. NSF Young Researcher Award for attending FOCAPO 2012 (Foundations of Computer-Aided Process Operations) during June 8-11, 2012 in Savannah, Georgia. For two Papers:
    Zhao, C. Y., Xu, Q., "Coupling Hoist Scheduling and Production Line Arrangement for Productivity Maximization", Proceedings of FOCAPO 2012, paper #32, Savannah, Georgia, USA, 2012.

Zhao, C. Y., Fu, J., Xu, Q., "Emission Considered Cyclic Scheduling for Ethylene Cracking Furnace System", Proceedings of FOCAPO 2012, paper #71, Savannah, Georgia, USA, 2012.

15. Advisor and Corresponding Author for the AIChE Process Development Division Graduate Student Paper Award, 2011.
    Awardee: Chuanyu Zhao
    Awarded Paper: Zhao, C. Y., Liu, C. W., Xu, Q. "Cyclic Scheduling for Ethylene Cracking Furnace System with Consideration of Secondary Ethane Cracking", *Industrial & Engineering Chemistry Research*, 49(12), 5765-5774, 2010.
16. Advisor and Corresponding Author for the AIChE Process Development Division Graduate Student Paper Award, 2010.
    Awardee: Xiongtao Yang
    Awarded Paper: Yang, X. T., Xu Q., Li, K. Y., Sagar, C. D., "Dynamic Simulation and Optimization for the Startup Operation of An Ethylene Oxide Plant", *Industrial & Engineering Chemistry Research*, 49 (9), 4360-4371, 2010.
17. Advisor and Corresponding Author for the AIChE Environmental Division Graduate Student Paper Award, 2010.
    Awardee: Chaowei Liu
    Awarded Paper: Liu, C. W., Zhang, J., Xu, Q., Gossage, J. L., "Thermodynamic Analysis-based Design and Operation for Boil-off Gas Flare Minimization at LNG Receiving Terminals", *Industrial & Engineering Chemistry Research*, 49(16), 7412-7420, 2010.
18. Advisor and Corresponding Author for the AIChE Sustainable Engineering Forum Student Paper Award, 2010.
    Awardee: Chaowei Liu
    Awarded Paper: Liu, C. W., Xu, Q. "Emission Source Characterization for Proactive Flare Minimization during Ethylene Plant Start-ups", *Industrial & Engineering Chemistry Research*, 49(12), 5734-5741, 2010.
19. Advisor for NSF Graduate Student Travel Grant for attending FOCAPD 2009.
    Awardee: Chaowei Liu
    For the Paper: Xu, Q., Liu, C. W., Yang, X. T., Li, K. Y., Lou, H. H., Gossage, J. L., "Study on Near-Zero Flaring for Chemical Plant Turnaround Operation", Proceedings of FOCAPD 2009, 603-611.

Peer-reviewed Journal Papers (* Corresponding Author)

1. Kurle Y. M., Wang, S. J., Xu, Q.*, "Dynamic Simulation of LNG loading, BOG Generation, and BOG Recovery at LNG Exporting Terminals", *Computers & Chemical Engineering*, 97, 47-58, 2017.
2. Xu, J. L., Zhang, S. J., Zhang J. Wang, S. J., Xu, Q.*, "Simultaneous Scheduling of Front End Crude Transfer and Refinery Processing", *Computers & Chemical Engineering*, 96, 212-236, 2017.

3. Chen, L.W., Lou, H.*, Xu, Q., "Simulation and Economic Evaluation of A coupled Thermal Vapor Compression Desalination Process for Produced Water Management", *Journal of Natural Gas Science & Engineering*, 36, 442 - 453, 2016.
4. Ge, S. J., Wang, S. J., Xu, Q.*, T. C. Ho, "Air-quality Conscious Scheduling for Multiple Ethylene Plant Start-ups", *Industrial & Engineering Chemistry Research*, 55 (36), 9698-9710, 2016.
5. Wang, S., Zhang J., Wang, S. J., Xu, Q.*, "Dynamic Simulation for Industrial Emission Reduction under Abnormal Operations", *Current Opinion in Chemical Engineering*, 14, 26-34, 2016.
6. Dinh H., Eljack F., Wang, S. J., Xu, Q.*, "Dynamic Simulation and Optimization Targeting Emission Source Reduction during An Ethylene Plant Start-up Operations", *Journal of Cleaner Production*, 135, 771-783, 2016.
7. Wang, Z. Y., Wang S., Xu, Q.*, Ho, T. C., "Impacts of flare emissions from an ethylene plant shutdown to regional air quality", *Atmospheric Environment*, 138, 22-41, 2016 (**2016 Best Paper Award of AIChE Environmental Division**).
8. Qu, H. L., Wang, S. J.*, Xu, Q.*, "A New Method of Cyclic Hoist Scheduling for Multi-recipe and Multi-stage Material Handling Processes", *Computers & Chemical Engineering*, 90, 171- 187, 2016.
9. Wang, Z. Y., Xu, Q.*, Ho, T. C., "Optimal Retrofit Design of Crude Distillation Units for Processing Shale Gas/Natural Gas Condensate Oil", *Chemical Engineering & Technology*, 39, 1-13, 2016.
10. Zhang, S. J., Xu, Q.*, "A New Reactive Scheduling Approach for Short-term Crude Oil Operations under Tank Malfunction", *Industrial & Engineering Chemistry Research*, 54 (49), 12438-12454 2015.
11. Cai, T. X., Wang, S. J.*, Xu, Q.*, "Monte Carlo Optimization for Site Selection of New Chemical Plants", *Journal of Environmental Management*, 163, 28-38, 2015.
12. Chen, M., Wang, S. J.*, Xu, Q.*, "Multi-objective Optimization for Air-quality Monitoring Network Design", *Industrial & Engineering Chemistry Research*, 54 (31), 7743-7750, 2015.
13. Dinh, H. D., Zhang, J., Xu, Q.*, "Process Synthesis for Cascade Refrigerant System based on Exergy Loss Minimization", *AIChE Journal*, 61(8), 2471-2488, 2015.
14. Kurle Y. M., Wang, S. J.*, Xu, Q.*, "Simulation Study on Boil-off Gas Minimization and Recovery Strategies at LNG Exporting Terminals", *Applied Energy*, 156, 628-641, 2015.
15. Zhang, S. J., Xu, Q.*, "Refinery Short-term Crude Scheduling with Consideration of Long-distance Pipeline Transportation", *Computers & Chemical Engineering*, 75, 74-94, 2015.
16. Dinh H., Zhang, S. J., Xu, Y. L., Xu, Q.*, Eljack F., El-Halwagi M. "A Generic Approach of Using Dynamic Simulation for Emission Reduction under Abnormal Operations: Scenario Study of An Ethylene Plant Startup", *Industrial & Engineering Chemistry Research*, 53 (39), 15089- 15100, 2014.
17. Zhang, S. J., Xu, Q.* "Reactive Scheduling of Short-Term Crude Oil Operations under Uncertainties", *Industrial & Engineering Chemistry Research*, 53 (31), 12502–12518, 2014.

18. Wang, M. Q., Xu, Q.*, "Optimal Design and Operation for Simultaneous Shale Gas NGL Recovery and LNG Re-gasification under Uncertainties", *Chemical Engineering Science*, 112, 130-142, 2014.
19. Wang, Z. Y., Xu, Q.*, Ho, T. C., "Emission Source Characterization during An Ethylene Plant Shutdown", *Chemical Engineering & Technology*, 37, 1-12, 2014.
20. Zhao, Y.C., Zhang, J., Qiu, T., Zhao, J.S., Xu, Q.*, "Flare Minimization during Start-ups of An Integrated Cryogenic Separation System via Dynamic Simulation", *Industrial & Engineering Chemistry Research*, 53 (4), 1553-1562, 2014.
21. Wei, T., Hou, X. F., Yu, J. T., Zhang, J., Xu, Q.*, Zhao, J. S., Qiu, T., "Shutdown Strategy for Flare Minimization at An Olefin Plant", *Chemical Engineering & Technology*, 37(4), 1-7, 2014.
22. Mittal, V., Cai, T. X., Krishnadevarajan K., Xu, Q.*, "Emission Considered Diesel Blending Optimization", *Chemical Engineering & Technology*, 37(2), 293-300, 2014.
23. Wang, M. Q., Zhang, J., Xu, Q.*, "A Novel Conceptual Design by Integrating NGL Recovery and LNG Re-gasification Processes for Maximum Energy Savings", *AIChE Journal*, 59(12), 4673–4685, 2013. (**Ranked as the Top Tier paper of AIChE J.**)
24. Zhao, C. Y., Fu, J., Xu, Q.*, "Real-time Dynamic Hoist Scheduling for Multi-stage Material Handling under Uncertainties", *AIChE J.*, 59(2), 465-482, 2013.
25. Fu, J., Xu, Q.*, "Simultaneous Study on Energy Consumption and Emission Generation for An Ethylene Plant under Different Start-up Strategies", *Computers & Chemical Engineering*, 56, 68-79, 2013.
26. Cai, T. X., Wang, S. J. Xu, Q*, "Scheduling of Multiple Chemical Plant Start-ups to Minimize Regional Air Quality Impacts", *Computers & Chemical Engineering*, 54, 68-78, 2013. (**2013 Best Paper Award of AIChE Environmental Division**)
27. Zhao, C. Y., Fu, J., Xu, Q.*, "Production-Ratio Oriented Optimization for Multi-recipe Material Handling via Simultaneous Hoist Scheduling and Production Line Arrangement", *Computers & Chemical Engineering*, 50(5), 28-38, 2013.
28. Cai, T. X., Wang, S. J. Xu, Q.*, Ho, T.C., "Proactive Abnormal Emission Identification via Air-quality Monitoring Network", *Industrial & Engineering Chemistry Research*, 52(26), 9189-9202, 2013.
29. Fu, J., Zhao, C. Y., Xu, Q.*, T.C. Ho "Debottleneck of Multi-stage Material-Handling Processes via Simultaneous Hoist Scheduling and Production Line Retrofit", *Industrial & Engineering Chemistry Research*, 52(1), 123-133, 2013.
30. Fu, J., Zhao, C. Y., Xu, Q.*, "Consider Novel CGC and Front-End Depropanizer System for Olefin Production", *Hydrocarbon Processing*, 92(5), 79-82, 2013.
31. Zhang, J., Wen, Y. Q., Xu, Q.*, "Simultaneous Optimization of Crude Oil Blending and Purchase Planning with Delivery Uncertainty Consideration", *Industrial & Engineering Chemistry Research*, 51 (25), 8453-8464, 2012.
32. Fu, J., Cai, T. X., Xu, Q.*, "Coupling Multiple Water-Reuse Network Designs for Agile Manufacturing", *Computers & Chemical Engineering*, 45, 62-71, 2012.
33. Cai, T. X., Zhao, C. Y., Xu, Q.*, "Energy Network Dispatch Optimization under Emergency of Local Energy Shortage", *Energy*, 42, 132-145, 2012.

34. Wang, M. Q., Zhang, J., Xu, Q.*, "Optimal Design and Operation of C3MR Refrigeration System for Natural Gas Liquefaction", *Computers & Chemical Engineering*, 39, 84-95, 2012 (**Most downloaded papers of the Journal during Sep. 2012~Aug. 2013**).
35. Zhang, J., Xu Q.*, Li, K. Y. "Operational Optimization for Mixed-refrigerant Systems", *Hydrocarbon Processing*, 91(4), 59-64, 2012.
36. Yang, X. T., Xu, Q.*, "Product Loss Minimization of An Integrated Cryogenic Separation System", *Chemical Engineering & Technology*, 635–645, 2012.
37. Liu, C. W., Zhao. C. Y., Xu, Q.*, "Integration of Electroplating Process Design and Operation for Simultaneous Productivity Maximization, Energy Saving, and Freshwater Minimization", *Chemical Engineering Science*, 68(1), 2012.
38. Zhang, J., Xu, Q.*, "Cascade Refrigeration System Synthesis Based on Exergy Analysis", *Computers & Chemical Engineering*, 35(9), 1901-1914, 2011.
39. Liu, C. W., Fu, J., Xu, Q.*, "Simultaneous Mixed-Integer Dynamic Optimization for Environmentally Benign Electroplating", *Computers & Chemical Engineering*, 35(11), 2411-2425, 2011.
40. Wang, M. Q., Zhang, J., Xu, Q.*, Li, K. Y. "Thermodynamic-Analysis-Based Energy Consumption Minimization for Natural Gas Liquefaction", *Industrial & Engineering Chemistry Research*, 50 (22), 12630–12640, 2011. (**2012 Best Paper Award of AIChE Process Development Division**)
41. Zhao, C. Y., Liu, C. W., Xu, Q.*, "Dynamic Scheduling for Ethylene Cracking Furnace System", *Industrial & Engineering Chemistry Research*, 50(21), 12026 -12040, 2011.
42. Yang, X. T., Xu, Q., Li, K. Y. "Fine-tune Ethylene Unit Startups", *Hydrocarbon Processing*, 90(6), 73-78, 2011.
43. Mittal, V., Zhang, J., Yang, X. T., Xu, Q.*, "E3 Analysis for Crude and Vacuum Distillation System", *Chemical Engineering & Technology*, 34(11), 1854-1863, 2011.
44. Yang, X. T., Xu, Q.*, Li K. Y. "Safety-Considered Proactive Flare Minimization during Ethylene Plant Upsets", *Chemical Engineering & Technology*, 34(6), 893-904, 2011.
45. Zhao, C. Y., Liu, C. W., Xu, Q.*, "Cyclic Scheduling for Ethylene Cracking Furnace System with Consideration of Secondary Ethane Cracking", *Industrial & Engineering Chemistry Research*, 49(12), 5765-5774, 2010. (**2011 Best Paper Award of AIChE Process Development Division**)
46. Yang, X. T., Xu, Q.*, Li, K. Y., Sagar, C. D., "Dynamic Simulation and Optimization for the Startup Operation of An Ethylene Oxide Plant", *Industrial & Engineering Chemistry Research*, 49 (9), 4360-4371, 2010. (**2010 Best Paper Award of AIChE Process Development Division**)
47. Liu, C. W., Xu, Q.*, "Emission Source Characterization for Proactive Flare Minimization during Ethylene Plant Start-ups", *Industrial & Engineering Chemistry Research*, 49(12), 5734-5741, 2010. (**2010 Best Paper Award of AIChE Sustainability Forum**)
48. Liu, C. W., Zhang, J., Xu, Q.*, Gossage, J. L., "Thermodynamic Analysis-based Design and Operation for Boil-off Gas Flare Minimization at LNG Receiving Terminals", *Industrial & Engineering Chemistry Research*, 49(16), 7412-7420, 2010. (**2010 Best Paper Award of AIChE Environmental Division**)
49. Yang, X. T., Xu, Q.*, Li, K. Y. "Flare Minimization Strategy for Ethylene Plants", *Chemical Engineering & Technology*, 33(7), 1-8, 2010. (**Selected as one of the Hottest articles in**

Green & Sustainable Chemistry Journals)

50. Zhang, J., Wen, Y. Q., Xu, Q.*, "Multi-Objective Optimization for Design and Operation of the Chilling Train System in Ethylene Plants", *Industrial & Engineering Chemistry Research*, 49(12), 5786-5799, 2010.
51. Liu, C.W., Zhang, J., Xu, Q.*, Li, K. Y., "Cyclic Scheduling for Best Profitability of Industrial Cracking Furnace System", *Computers & Chemical Engineering*, 34(4), 544-554, 2010.
52. Xu, Q.*, Yang, X. T., Liu, C. W., Li, K. Y., Lou, H. H., Gossage, J. L., "Chemical Plant Flare Minimization via Plant-Wide Dynamic Simulation", *Industrial & Engineering Chemistry Research*, 48(7), 3505-3512, 2009.
53. Yang, X. T., Xu, Q.*, Zhao, C., Li, K. Y., Lou, H. H., "Pressure-driven Dynamic Simulation for Improving the Performance of A Multi-stage Compression System during Plant Startup", *Industrial & Engineering Chemistry Research*, 48(20), 9195-9203, 2009.
54. Li, C., He, X. R., Chen, B. Z., Xu, Q., Liu, C. W., "A Hybrid Programming Model for Optimal Production Planning under Demand Uncertainty in Refinery," *Chinese J. Chem. Eng.*, 16(2) 241-246, 2008.
55. Xiao, J., Li, J., Xu, Q., Lou, H. H., and Huang, Y. L., "Ant-Colony-System-Based Dynamic Optimization for Reactive Drying of Polymeric Coating," *AIChE J.*, 52(4), 1410-1422, 2006.
56. Kuntay, I., Xu, Q., Uygun, K., and Huang, Y. L. "Environmentally Conscious Hoist Scheduling for Electroplating Facilities", *Chemical Engineering Communications*, 193, 273-293, 2006.
57. Xu, Q., Arnesh, T., Lou, H. H., and Huang, Y. L. "Integrated Electroplating System Modeling and Simulation for Near Zero Discharge of Chemicals and Metals", *Industrial & Engineering Chemistry Research*, 44(7), 2156-2164, 2005.
58. Xu, Q. and Huang, Y. L. "Design of an Optimal Reversed Drag-out Network for Maximum Chemical Recovery in Electroplating Systems", *Plating & Surface Finishing*, 92(6), 44-48, 2005.
59. Xu, Q. and Huang, Y. L. "Graph-assisted Cyclic Hoist Scheduling for Environmentally Benign Electroplating", *Industrial & Engineering Chemistry Research*, 43(26), 8307-8316, 2004.
60. Zhang, L., He, X. R., and Xu, Q. "A Modified Model for Flexibility Analysis in Chemical Engineering Processes", *Chinese Journal of Chemical Engineering*, 12(5), 673-676, 2004.
61. Wang, J., Q. Xu, Chen, B. Z., and He, X. R. "Parallel Optimization Scheme for Industrial Steam Cracking Process", *Journal of Chemical Engineering of Japan*, 36(1), 14-19, 2003.
62. Xu, Q., Chen, B. Z., He, X. R. "A Fast Simulation Algorithm for Industrial Cracking Furnaces", *Hydrocarbon Processing*, 81(12), 65-68, 2002.
63. Xu, Q., Chen, B. Z., and He, X. R. "Simulation for the Whole Periodic Operation of Naphtha Pyrolysis", *Tsinghua Science and Technology*, 7(1), 36-40, 2002.
64. Xu, Q., Chen, B. Z., and He, X. R. "Acceleratory Method for Simulation of Ethylene Cracking Furnaces", *Journal of Tsinghua University* (in Chinese), 42(10), 1300-1303, 2002.
65. Lin, A. G., Xu, Q., and Zhao, H. "Development and Application of MCAI Courseware for 'Principle of Chemical Engineering'", *Computers and Applied Chemistry* (in Chinese), 19(5), 654-656, 2002.
66. Xu, Q., Chen, B. Z., and He, X. R. "An Extended Algorithm of Flexibility Analysis in Chemical Engineering Process", *Chinese Journal of Chemical Engineering*, 9(1), 51-57, 2001.
67. Xu, Q.*, Chen, B. Z., and He, X. R. "Dynamic Monitoring System for FCCU Product Qualities",

Hydrocarbon Processing, 80(4), 81-83, 2001.

68. Xu, Q., Chen, B. Z., and He, X. R. "Periodic Simulation for Naphtha Pyrolysis in SRT-IV Cracking Furnace", *Computers and Applied Chemistry* (in Chinese), 18(4), 303-306, 2001.
69. Xu, Q., Chen, B. Z., and He, X. R. "Flexibility Analysis in Chemical Process System", *Journal of Tsinghua University* (in Chinese), 41(6), 44-47, 2001.
70. Xu, Q., Chen, B. Z., and He, X. R. "Simulation for Naphtha Pyrolysis in Clear Radiation Tube of SRT-IV Cracking Furnace", *Computers and Applied Chemistry* (in Chinese), 18(3), 223-228, 2001.
71. Zhang, J., Chen, B. Z., He, X. R., and Xu, Q. "Optimal Synthesis and Flexibility Analysis of Complex Process Industrial System", *Computers and Applied Chemistry* (in Chinese), 18(1), 23-30, 2001.
72. Xu, Q., Chen, B. Z., and He, X. R. "Data mining and modifying technology of intellect monitoring system on FCC oil qualities", *Computers and Applied Chemistry* (in Chinese), 17(3), 210-214, 2000.
73. Zhang, J., Chen, B. Z., He, X. R., and Xu, Q. "Operational Optimization of Complex Process Industrial System", *Computers and Applied Chemistry* (in Chinese), 17(6), 481-488, 2000.
74. Xu, Q., Chen, B. Z., and He, X. R. "A Fuzzy Modifying Strategy Based on Historical Data for On-Line Calculation of Oil-Product Targets", *Chemical Industry and Engineering Process* (in Chinese), Supp. 224-227, 1999.

Peer-reviewed Conference Proceeding Papers

1. Chen, M., Qu, H. L., Xu, Q.*, "Two Dimension Cyclic Hoist Scheduling", accepted, Proceedings of FOCAPO/CPC 2017, paper #49, Tucson, Arizona, USA, 2017.
2. Ge, S. J., Wang, S. J., Xu, Q.*, T. C. Ho, "Air-quality Conscious Scheduling for Multi-Plant Turnaround Operations", accepted, Proceedings of FOCAPO/CPC 2017, paper #47, Tucson, Arizona, USA, 2017.
3. Wang, S., Wang, S., Zhang J., Xu, Q.*, "Plant-Wide Dynamic Simulation for Flare Minimization in Chemical Process Industry, proceeding of ICCMS 2016: International Conference on Computer Modeling and Simulation" December 5-6, 2016, Miami, USA.
4. Wang, S.*, Eick C., Xu, Q., "A Spatiotemporal Data Mining Framework for Mining Ozone Pollution Data", Proceeding of Geocomputation 2015 Conference, 524-527, May 20-23, 2015, Dallas, TX, USA.
5. Dinh H., Wang, Z. Y., Zhang J., Xu, Q.*, "Olefin Plant Flare Minimization via Dynamic Simulation and Optimization", the 27th Ethylene Producers' Conference, Austin, Texas, USA, April 26 - 30, 2015.
6. Eljack, F., El-Halwagi, M., Xu, Q., "An Integrated Approach to the Simultaneous Design and Operation of Industrial Facilities for Abnormal Situation Management", Proceedings of the 8th International Conference on Foundations of Computer-Aided Process Design, p771- 776. FOCAPD 2014, July 13-17, 2014, Cle Elum, Washington, USA.

7. Cai, T.X., Wang, S. J., Xu, Q.*, "Air Quality Considered Site Selection for New Chemical Plants", Proceedings of the 8th International Conference on Foundations of Computer-Aided Process Design, p273- 278. FOCAPD 2014, July 13-17, 2014, Cle Elum, Washington, USA.
8. Dinh, H., Xu, Q.*, "Coupling Refrigeration System Synthesis and Heat Exchanger Network Design", Proceedings of the 8th International Conference on Foundations of Computer-Aided Process Design, p297- 302. FOCAPD 2014, July 13-17, 2014, Cle Elum, Washington, USA.
9. Cai, T. X. and Xu, Q.*, "Application of Leading and Lagging Indicators to Improve Situation Awareness", 10th Global Congress on Process Safety, New Orleans, Louisiana, USA, March 30 - April 3, 2014.
10. Wang, Z. Y., Zhang J., Xu, Q.*, Ho, T. C. "Dynamic Simulation for Optimal Operation of Distillation Column Startups in an Ethylene Plan", the 26th Ethylene Producers' Conference, New Orleans, Louisiana, USA, March 30 - April 3, 2014.
11. Zhang, S. J., Zhang, J., Xu, Q.*, "An Ethylene Plant Start-up with Total Recycles: Dynamic Simulation of De-Ethanizer Transient Behaviors", the 25th Ethylene Producers' Conference, San Antonio, TX, April 28-May 2, 2013.
12. Eljack, F., Kamrava, S., El-Halwagi, M., Xu, Q. "Co-gen for Flare Reduction During Abnormal Situation: A Perspective for Qatari Industry", the 7th International Petroleum Technology Conference (IPTC), Doha, Qatar, January 20-22, 2014.
13. Cai, T., Xu, Q.*, "Uncertainty Relationship Analysis for Multi-Parametric Programming in Optimization", Advances in Global Optimization, 437-447, 2015. Presented in the 2013 World Congress on Global Optimization (WCGO 2013), The Yellow Mountains, China, July 7-12, 2013
14. Cai, T. X. and Xu, Q.*, "HAZOP Analysis and Debottleneck for Laboratory Operation in the Semiconductor Industry", 9th Global Congress on Process Safety, San Antonio, Texas, USA, April 28 – May 1, 2013.
15. Xu, Q.* and Zhao, C. Y., "Dynamic Scheduling for Optimal Decoking Operation of Cracking Furnace System", the 24th Ethylene Producers' Conference, Houston, TX, April 2-5, 2012.
16. Zhao, C. Y., Xu, Q.*, "Coupling Hoist Scheduling and Production Line Arrangement for Productivity Maximization", Proceedings of FOCAPO 2012, paper #32, Savannah, Georgia, USA, 2012.
17. Zhao, C. Y., Fu, J., Xu, Q.*, "Emission Considered Cyclic Scheduling for Ethylene Cracking Furnace System", Proceedings of FOCAPO 2012, paper #71, Savannah, Georgia, USA, 2012.
18. Li, K. Y., Xu, Q. "Flare Minimization via Dynamic Simulation", the 23rd Ethylene Producers' Conference, Chicago, IL, March 13-17, 2011.
19. Richmond, P., Gossage, J. L., Xu, Q., "An Alarming Experience: Results of An Undergraduate Chemical Process Alarm Lab Module", *ASEE Annual Conference*, AC2010-608, Louisville, KY, June 20 - 23, 2010.
20. Chen, D., Richmond, P., Xu, Q., Gossage, J. L., "Incorporating Distributed Control System- Based Manufacturing into Undergraduate Chemical Engineering Education", *International Association for Technology, Education and Development (INTED 2010)*, Paper 788, Valencia, Spain, March 8 - 10, 2010.
21. Fu, J., Zhang, J., Xu, Q.*, Li, K. Y., "Rigorous Simulation for Front-End Depropanization System of An Ethylene Plant", *Proceedings of 2009 Symposium on Process Systems Engineering in Taiwan*, 130-135, 2009.

22. Xu, Q.*, Liu, C. W., Yang, X. T., Li, K. Y., Lou, H. H., Gossage, J. L., "Study on Near-Zero Flaring for Chemical Plant Turnaround Operation", Proceedings of FOCAPD 2009, 603-611, M. M. El-Halwagi and A. A. Linninger, CRC Press, Boca Raton, FL, USA.
23. Zhang, J., Wen, Y. Q., Xu, Q.*, and Chen, B. Z. "Global Optimization of the Multi-Level Refrigeration System in Chemical Plants", Lecture Notes in Decision Sciences (Vol. 12): Global Optimization: Theory, Algorithm & Applications (I), 2009, 688-693.
24. Richmond, P., Li, K. Y., Chen, D., Gossage, J. L., Xu, Q., "A Modern Manufacturing Environment for Chemical Engineering Pbl Problems", 2009 ASEE ANNUAL CONFERENCE & EXPOSITION, AC2009-268, Austin, TX, June 14 - 17, 2009.
25. Xu, Q.*, Li, K. Y., Yang, X. T., Liu, C. W., Romero, R. O., Mekala, U. R., Lou, H. H., Gossage, J. L., "Flare Minimization for Chemical Plant Turnaround Operation via Plant-wide Dynamic Simulation," Proceedings of FOCAPO 2008, 247-250, M. Lerapetritou, M. Bassett, S. Pistikopoulos, CACHE Corporation, Boston, MA, USA.
26. Xu, Q.*, Liu, C. W., Simultaneous Cyclic Hoist Scheduling and Water-Reuse Network Design for Environmentally Benign Electroplating, Proceedings of FOCAPO 2008, 183-186, M. Lerapetritou, M. Bassett, S. Pistikopoulos, CACHE Corporation, Boston, MA, USA.
27. Li, K., Xu, Q., Lou, H. H., Gossage, J. L., Singh, A., Vragolic, S., and Kelly, T., "Flare Minimization during Plant Startup via Dynamic Simulation", Proceedings of PSE ASIA 2007, Xi'an, China, 2007.
28. Huang, Y. L., Xu, Q., and Lou, H. H., "P3EP: A Tool Set for Profitable Pollution Prevention in Electroplating Plants", Proceedings of SUR/FIN 2005, St. Louis, Missouri, June 13-16, 2005.
29. Huang, Y. L., Xu, Q., and Lou, H. H., "Integrated Design and Operation of Near Zero Discharge Electroplating System via Modeling and Simulation", Proceedings of 2005 NSF DMII Grantees Conference, Scottsdale, Arizona, January 3-6, 2005.
30. Xu, Q., Chen, B. Z., and He, X. R. "Optimization for Semi-continuous Dynamic Process under Uncertainty", 8th International Symposium on Process System Engineering, 1088-1093, 2003.
31. Wang, J., Xu, Q., Chen, B. Z., and He, X. R. "Parallel Optimization of Operation for Ethylene Cracking Furnace", Fourth International Conference on Foundations of Computer Aided Process Operations (FOCAPO 2003), Coral Springs, Florida, Jan. 12-15, 635-638, 2003.
32. Xu, Q., Chen, B. Z., and He, X. R. "Using MATLAB for Industrial Scale Chemical Processes", The Fourth China-Korea Joint Workshop on Process System Engineering, Guangzhou, Dec. 5~8, 143-146, 2001.
33. Zhang, L., He, X. R. and Xu, Q. "An Integrated Algorithm of Flexibility Analysis in Chemical Engineering Process", Fourth China-Korea Joint Workshop on Process System Engineering, Guangzhou, Dec. 5~8, 115-119, 2001.
34. Xu, Q., Chen, B. Z., and He, X. R. "Real-time Optimization of Olefin Steam Cracker", Symposium of Annual Conference of Process System Engineering (in Chinese), Qingdao, Aug. 24~26, 229-234, 2001.
35. Xu, Q., Chen, B. Z., and He, X. R. "Dynamic Monitoring System for Product Qualities of FCC Main Fractionator", The Third Joint China/USA Chemical Engineering Conference, Beijing, Sep. 25-28, 09.029-09.033, 2000.

Invited Talks

1. "Multi-scale Dynamic Simulation and Optimization for Cost-effective Industrial Emission Reductions", 2015 Process Development Symposium, Houston, Texas, June 2-4, 2015.
2. "Dynamic Simulation, Optimization, and Scheduling Techniques for Industrial Sustainability", College of Engineering Advisory Council Meeting, Lamar University, Beaumont, Texas, October 29, 2014.
3. "Flare Minimization during Ethylene Plant Turnaround Operations via Dynamic Simulation and Optimization", The 6th AIChE Southwest Process Technology Conference, Galveston, Texas, October 9-10, 2014.
4. "Applications of Simulation, Optimization, and Scheduling Techniques in Ethylene Plants for Profit Increment", SABIC Technology Center, SABIC, The Netherlands, September 29, 2014
5. "Industrial Flare Minimization via Dynamic Simulation and Optimization", Yunnan University, Kunming, P. R. China, July 4, 2014.
6. "Industrial Flare Minimization via Dynamic Simulation and Optimization", Qatar University, Qatar, May, 5, 2014.
7. "Flare Minimization for Chemical Industry", The Goodyear Tire & Rubber Company, Beaumont, Texas, April 10, 2014.
8. "Proactive and Profitable Emission Reduction for Chemical Process Industry ", 2013 Global Chinese Petroleum & Petrochemical Technical Symposium (GCPPTS), Shenzhen, China, June 19-21, 2013.
9. "Energy Consumption Minimization for Natural Gas Liquefaction", Chevron, Houston, Texas, December 6, 2012.
10. "Emission Source Reduction via Process Dynamic Simulation and Optimization", Chevron, Houston, Texas, December 6, 2012.
11. "Hoist Scheduling for Multi-stage Material Handling", Yunnan University, Kunming, China, April 24, 2012.
12. "Study on Emission Reduction for Olefin Plants", 2011 PetroChina Ethylene Manufacturing Technology Conference, Daqing, P. R. China, July 22, 2011.
13. "Proactive and Profitable Emission Reduction for Chemical Process Industry", Yunnan University, Kunming, P. R. China, June 10, 2011.
14. "Emission Reduction Working Plan for Ethylene Plant Start-up and Shutdown", Daqing Ethylene Plant of PetroChina Inc., Daqing, P. R. China, May 17, 2011.
15. "Emission Reduction Working Plan for Ethylene Plant Start-up and Shutdown", Ethylene Manufacturing Technology Conference, Daqing Ethylene Plant of PetroChina Inc., Daqing, P. R. China, July 21-22, 2011.
16. "Proactive and Profitable Emission Source Reduction via Process System Dynamic Simulation and Optimization", Saudi Aramco Technology Symposium on Technologies for Reducing CO2 Emissions from Transportation Sectors and CO2 Utilization, Houston, Texas, October 11, 2010
17. "Proactive and Profitable Emission Reduction for Chemical Process Industry", Department of Chemical and Biomolecular Materials Engineering, UCLA, Los Angeles, CA, October 7, 2010.

18. "Introduction to Dynamic Simulation and Its Application for Industrial Flare Minimization", Department of Chemical and Materials Engineering, California State Polytechnic University, Pomona, CA, October 8, 2010.
19. "Using Advanced Computational Tools for Process Control Curriculum Improvement", Education Research Conference at Lamar University, March 26, 2010.
20. "Flare Minimization for Chemical Process Industry", Air and Waste Management Association, Houston, TX, January 14, 2010.
21. "Flare Minimization for Chemical Process Industry", Texas Oil & Gas Association, Austin, TX, October 29, 2009.
22. "Computer-Aided Study and Application for Chemical Process Industry", (together with Dr. Kuyen Li) the committee meeting of Advancing New Technologies at Lamar University (ANT@LU), September 1, 2009.
23. "Dynamic Simulation and Optimization for Flare Minimization under Ethylene Plant Turnaround Operations", Sinopec Maoming Petrochemical, Maoming, China, May 19, 2009.
24. "Applications of Soft-Sensor, Production Scheduling, and Dynamic Simulation for Industry Profitability", KBR Inc., Houston, TX, February 5, 2009.
25. "Dynamic Simulation for Chemical Plant Turnaround Operations", Texas Integrated Environmental Management Consortium, Houston, TX, June 25, 2008.
26. "Chemical Process Systems Modeling and Optimization", Tsinghua University, Beijing China, August 20, 2007.

Conference Presentations

1. Odell, A., Xu, Q., "Model Predictive Control for Ethylene Oxide Explosion Limits under Plant Upset Conditions", submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
2. Ge, S. J., Xu, Y. L., Wang, S. J., Xu, Q., Ho, T. C, Palanki, S., "Study on Regional Air Quality Impact from Olefin Plant Shutdown Operations", submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
3. Kurle, Y., Xu, Q., "Dynamic Simulation of LNG Loading, Bog Generation, and Bog Recovery at LNG Exporting Terminals", submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
4. Xu, J. L., Zhang, J., Xu, Q., "Emission Conscious Scheduling of Crude Unloading, Transferring, and Processing for Petroleum Refineries", submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
5. Chen, L. W., Xu, Q., "An Inverse-Based Methodology for Disturbance Identification of Nonlinear MIMO Systems", submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
6. Xu, C. X., Zhang, J., Xu, Q., "Optimal Design of Mixed Refrigerant System in Ethylene Plants for Maximum Energy Savings", submitted, The 29th Ethylene Producers Conference, San Antonio, TX, March 26-30, 2017.

7. Zhang, J., Ge, S. J., Xu, Q., Ho, T. C., “Startup Optimization and Flexibility Analysis for Ethylene Procedures”, submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
8. Zhang, J., Ge, S. J., Xu, Q., Ho, T. C, “Optimization of Shutdown Procedures of Olefin Plants ”, submitted, AIChE Spring Meeting, San Antonio, TX, March 26-30, 2017.
9. Ge, S. J., Wang, S. J., Xu, Q., Ho, T. C., “ Air-Quality Conscious Study for Multiple Olefin Plants' Turnaround Operations”, AIChE Annual Meeting, San Francisco, CA, November 13- 18, 2016.
10. Xu, J. L., Xu, Q., “A New Proactive Scheduling Methodology for Front-End Crude Oil and Refinery Operations Under Uncertainty of Shipping Delay”, AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
11. Xu, J. L., Zhang, J., Xu, Q., “Emission Considered Scheduling for Crude Unloading, Transferring, and Processing”, AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
12. Ge, S. J., Wang, S. J., Xu, Q., Ho, T. C, “The Study of Ozone Pollution Superposition Caused By Simultaneous Olefin Plant Startups”, AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
13. Qu, H. L., Xu, Q., "Study on Advanced Plant-Wide Control Strategies of an Ethylene Plant", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
14. Xu, Y. L., Xu, Q., Wang, S. J., "Flare Minimization for Simultaneous Turnaround Operations of Two Olefin Plants", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
15. Chen, M., Xu, Q., Wang, S. J., "Scheduling and Purchasing Optimization for Olefin Cracking Complex", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
16. Chen, M., Xu, Q., Wang, S. J., "Scheduling and Purchasing Optimization for Olefin Plants with Downstream Constraints", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
17. Wang, S., Wang, Z. Y., Xu, Y. L., Xu, Q., "Dynamic Simulation and Optimization for Automation of Distillation Column Shut-Down Operations", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
18. Zhang, J., Xu, Q., "Optimizing Overall Energy Consumptions and Dynamic Flexibilities of Air Separation Unit (ASU)", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
19. Zhang, J., Wang, Z, Y., Ge, S. J., Xu, Q., Ho, T. C., "Optimal Design and Operations to Simultaneously Reduce Flare Emissions and Material Costs during Shutdown Procedures", AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
20. Ho, T. C., Zhang, J., Ge, S. J., Wang, Z, Y., Xu, Q., " Development and Simulation of a Novel Ethylene Plant Shutdown Procedure for Reduced Flare Emissions and Improved Air Quality", The 4th International Conference on Sustainable Chemical Product and Process Engineering (SCPPE 2016), Nanjing, China, May 31- June 3, 2016.
21. Ge, S. J., Wang, S. J., Xu, Q., Ho, T. C., "Air-Quality Conscious Scheduling for Multiple Olefin Plant Start-Ups", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
22. Zhang, J., Wang, Z. Y., Ge, S. J., Xu, Q., Ho, T. C., "Ozone Source Apportionments of Local Anthropogenic Emissions", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.

23. Xu, C. X., Wayne Chiu, Zhang, J., Xu, Q., "Flare Minimization and Emission Characterization during Start-Ups of Chilling Train in Ethylene Plants", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
24. Qu, H. L., Zhao C. Y., Xu, Q., "New Development on Hoist Scheduling with the Relaxation of Cyclic Precondition", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
25. Cai, T. X., Xu, Q., "Application of Open Source Software Tools in the Process Safety Education", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
26. Mahmud, M. A., Khan, R., Xu, Q., "A Statistical Analysis of Sloshing Parameters for Multiphase Offshore Oil & Gas Separators", AIChE Spring Meeting, Houston, TX, April 10- 14, 2016.
27. Xu, J. L., Zhang, S. J., Zhang, J., Xu, Q., "A New Reactive Scheduling Methodology for Front End Crude Oil and Refinery Operations Under Uncertainty of Shipping Delay", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
28. Chen, M., Xu, Q., "Olefin Furnace System Scheduling with the Consideration of Downstream Separation Constraints", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
29. Xu, Y. L., Dinh, H., Wang, S., Eljack F. T., El-Halwagi, M., Xu, Q., "Flare Minimization for an Ethylene Plant Shutdown via Plant-Wide Dynamic Simulation", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
30. Mahmud, M. A., Khan, R., Xu, Q., "A Different CFD Approach to Model Sloshing of Offshore Multiphase Separators", AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
31. Xu, J., Zhang, S. J., Zhang, J., Xu, Q., "Simultaneous Scheduling of Front End Crude Transfer and Refinery Processing", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
32. Xu, C. X., Dinh, H., Zhang, J., Xu, Q., "Process Synthesis of Mixed Refrigerant Cascade System for Ethylene Plants", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
33. Dinh, H., Zhang, S. J., Xu, Q., Eljack F., "Pressure-Driven Dynamic Simulation for Flare Minimization and Greenhouse Gas Reduction during an Ethylene Plant Startup", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
34. Chen, M., Qu, H. L., Xu, Q., "Olefin Furnace System Scheduling with the Consideration of Relay Cracking of Recycled Ethane/Propane", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
35. Qu, H. L., Xu, Q., "Hierarchic Cyclic Hoist Scheduling for Multi-Stage Material Handling Processes", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
36. Zhang, S. J., Xu, Q., "Reactive Scheduling for Optimal Decoking Operation of Ethylene Cracking Furnace System", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
37. Wang, Z. Y., Xu, Q., Ho, T. C., "Ethylene Splitter Startup Strategy Development through the Integration of Dynamic Simulation and DCS Control System", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
38. Qu, H. L., Xu, Q., "Optimization of Two-Dimensional Hoist Scheduling and Production Line Design for Multi-Stage Material Handling", AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.

39. Kurle, Y., Xu, Q., “Steam Load Shedding System Design Using Dynamic Simulation”, AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
40. Mahmud, M. A., Khan, R., Xu, Q., "A Novel Simple Approach to Describe Sloshing in FPSO Vessel Using CFD Simulation", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
41. Mahmud, M. A., Khan, R., Xu, Q., "Mechanism of Sloshing Minimization in Offshore Separator By CFD Simulation", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
42. Qu, H. L., Zhao C. Y., Xu, Q., " New Development on Hoist Scheduling for Multi-Stage Material Handling", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
43. Xu, J. L., Zhang, S. J., Zhang, J., Xu, Q., " Simultaneous Scheduling of Front End Crude Transfer and Refinery Processing", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
44. Zhang, S. J., Chen, M., Xu, Q., "Reactive Production Scheduling for Ethylene Cracking Furnace System", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
45. Wang, Z. Y., Xu, Y. L., Dinh H., Xu, Q., Ho, T., "Air-Quality Evaluation on Flare Minimization Strategies for An Ethylene Plant Shutdown", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
46. Wang, Z. Y., Xu, Q., Ho, T., "Optimized Control Strategy of Distillation Column under Startup and Shutdown", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
47. Zhang, J., Kurle, Y., Xu, Q., "Use Thermodynamics to Optimize Energy Consumption and Gas Separation in LNG Processes", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
48. Zhang J., Wang, Z. Y., Ho, T., Xu, Q., "Effect of Ozone Concentrations from Local Emission Sources", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
49. Kurle, Y., Xu, Q., "Steam Load Shedding System Design via Dynamic Simulation", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
50. Kurle, Y., Xu, Q., "Boil-Off Gas Minimization and Recovery Options at LNG Loading Terminals", AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
51. Zhang, J., Wang, Z. Y., Xu, Q., Ho, T., “Uncertainties of Ozone Increments Caused By Industrial Startup Flaring”, AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
52. Zhang, J., Dinh H., Xu, Q., “Use Exergy Analysis to Increase Energy Efficiencies of LNG Processes”, AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
53. Chen, M., Xu, Q., “Multi-Objective Optimization for Air-Quality Monitoring Network Design”, AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
54. Dinh H., Zhang, S. J., Xu, Y. L., Xu, Q., Eljack F., El-Halwagi M., “Dynamic Simulation Targeting Emission and GHG Reduction Under Abnormal Operations: Start-up of an Ethylene Plant By Total Recycle and Intermediate Storage”, AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
55. Dinh H., Zhang, J., Xu, Q., “Exergetic Analysis in Performance Evaluation and Process Synthesis of Refrigeration System in an Ethylene Plant”, AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
56. Kule, Y., Xu, Q., “Flare Minimization of Boil-Off Gas during LNG Production”, AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.

57. Wang, Z. Y., Zhang, S. J., Xu, Q., Ho, T., "A Conceptual Design of Shale Gas Condensate Recovery Process for Maximum Energy Savings", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
58. Wang, Z. L., Li, Li J., Xu, Q., "Dynamic Load Optimization for Ethylene Cracking Furnace System", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
59. Wang, Z. L., Ye, Z., Xu, Q., "Simultaneous Product Loss and Energy Minimization for the Cryogenic Separation System of an Ethylene Plant", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
60. Xu, Y. L., Dinh, H., Wang, Z. Y., Xu, Q., "Study of Flare Minimization Opportunities during an Ethylene Plant Shutdown", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
61. Zhang, S. J., Xu, Q., "A New Reactive Scheduling Methodology for Front-End Crude Oil Operations under Uncertainties of Tank Availability", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
62. Zhang, S. J., Xu, Q., "Integration of Procurement Planning and Short-Term Scheduling in Petroleum Refineries Under Consideration of Crude Delivery Uncertainty", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
63. Cai, T., Xu, Q., "Multi-Objective Modeling, Simulation, and Optimization for Economically and Environmentally Conscious Decision Makings", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
64. Cai, T., Xu, Q., "Dynamic Control of Multiple Water Networks for Agile Manufacturing", AIChE Annual National Meeting, November 16~21, Atlanta, GA, 2014.
65. Wang, Z. Y., Xu, Q. "Dynamic Simulation for An Ethylene Plant Shutdown Operation", 2014 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, September 26, 2014.
66. Xu, Q. "Coupling Emission Source Reduction and Air Quality Modeling for Chemical Industry Sustainability", 2014 CAPA Petroleum and Petrochemical Technical Symposium, Houston, Texas, September 26, 2014.
67. Zhang, J. and Xu, Q., "Use of Exergy Analysis to Increase the Efficiency of Natural Gas Refrigeration Processes", NSF-Sponsored Short Course and Workshop on Shale Gas Monetization, Montgomery, Texas, March 26-28, 2014.
68. Dinh, H. and Xu, Q., "Process Synthesis of a Cascade Refrigeration System in Ethylene Plant based on a MINLP Exergy Loss Minimization model", NSF-Sponsored Short Course and Workshop on Shale Gas Monetization, Montgomery, Texas, March 26-28, 2014.
69. Zhang, J., Wang, Z. Y., Xu, Q., Ho, T. C. "Air Quality Impact of the Startup of a Single Olefin Plant", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
70. Zhang, J., Dinh H., Kurle Y., Xu, Q. "Use Exergy Analysis to Increase Efficiencies of Mid- Scale LNG Processe", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
71. Zhang, J., Wang, Z. Y., Xu, Q., Ho, T. C. "Chemical Plant Startup Simulations for Flare Emission Reduction", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
72. Dinh H., Zhang, J., Xu, Q. "A Study on Exergy-Based Thermodynamic Analysis and Process Synthesis of Mixed-Refrigerant Systems for Ethylene Plants", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.

73. Dinh H., Zhang, S. J., Xu, Q., Eljack F., Kamrava S., El-Halwagi M. "Flare Emission and Greenhouse Gas Reduction Study during an Ethylene Plant Startup on Recycle through Dynamic Simulation and Process Optimization", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
74. Zhang, S. J., Xu, Q. "Robust Optimization for Design and Operation of Chilling Train System in an Olefin Plant", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
75. Xu, Y. L., Zhou W. P., Xu, Q. "Plant-Wide Simulation of Ethanol Oxidation Process for Acetic Acid Production", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
76. Wang, Z. Y., Xu, Q., Ho, T. C. "Dynamic Simulation for Flare Minimization Strategy in an Ethylene Plant Shutdown", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
77. Wang, Z. Y., Zhang J., Xu, Q., Ho, T. C. "Dynamic Simulation for Optimal Operation of Distillation Column Startups in an Ethylene Plan", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
78. Cai, T.X., Xu, Q. "Application of Leading and Lagging Indicators to Improve Situation Awareness", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
79. Cai, T.X., Xu, Q. "Application of Leading and Lagging Indicators to Improve Laboratory Operation Safety", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
80. Li, G., Cai, T.X., Xu, Q. "Optimization of Water Network Design and Dynamic Operation for Agile Batch Manufacturing", AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
81. Cai, T.X., Xu, Q. "Agile Multiple Water Network Designs for Soluble Contaminant Transport Identification and Site Remediation", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
82. Cai, T.X., Xu, Q. "Regional Air Quality Improvement By Scheduling of Multiple Chemical Plant Start-Ups", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
83. Cai, T.X., Xu, Q. "Monte Carlo Optimization for Site Selection of New Chemical Plant", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
84. Cai, T.X., Xu, Q. "Data Integration for Proactive Abnormal Emission Identification Via Air-Quality Monitoring Network", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
85. Cai, T.X., Xu, Q. "Emergency Response Network Optimization to Reduce Environment Impact for Potential Chemical Transportation Accident", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
86. Wang, Z. Y., Xu, Q., Ho, T. C., "Emission Source Characterization during An Ethylene Plant Shutdown", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
87. Wang, Z. Y., Xu, Q., Ho, T. C., "Impact of Flaring Emissions on Regional Air Quality Associated with An Ethylene Plant Shutdown through CAMx Simulations", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
88. Wang, Z. Y., Zhang, J., Xu, Q., Ho, T. C., "Simultaneous Reduction of Chemical Plant Start-up Flaring and Regional Air Quality Impact via Multi-scale Dynamic Modeling", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.

89. Zhang, S. J., Xu, Q., "Simultaneous Scheduling of Crude-Oil Unloading, Transferring, and Blending based on Continuous Time Formulation: Generic Model and Extensions", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
90. Zhang, S. J., Xu, Q., "Reactive Scheduling of Short-Term Crude Oil Operations under Tank Availability and Demand Uncertainties", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
91. Zhang, S. J., Dinh, H., Xu, Q., "Ethylene Plant Start-up with Total Recycles for Flare Minimization: Scenario Study on High-pressure and Low-pressure Depropanizer System", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
92. Dinh, H., Zhang, S. J., Xu, Q., "Dynamic Simulation for Safety Analysis in an Integrated Front-end De-Propanizer System of an Ethylene Plant", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
93. Dinh, H., Zhang, J., Xu, Q., "Exergy-Loss-Minimization based Process Synthesis for Cascade Refrigerant System in Ethylene Plants", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
94. Dinh, H., Zhang, S. J., Xu, Q., Eljack, F., Kamrava S., El-Halwagi, M. "A Generic Approach of Using Dynamic Simulation for Emission Reduction under Abnormal Operations: Scenario Study of An Ethylene Plant Startup with Sulfur Recovery Unit", AIChE Annual National Meeting, San Francisco, CA, November 3~8, 2013.
95. Xu, Q., "Optimal Design and Operation for Energy Savings during Natural Gas Liquefaction", 2013 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, October 25, 2013.
96. Zhang S.J., Xu, Q., "Dynamic Simulation of An Ethylene Plant Startup for Flare Minimization: General Startup Plan and Scenario Studies", 2013 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, October 25, 2013.
97. Zhang, J., Wang, M. Q., Fu, J., Zhao, C. Y., Dinh, H., Zhang, S. J., Xu, Q., Li, K. Y., "Use Dynamic Simulation to Reduce Startup Flare Emissions for Ethylene Plants", AIChE Spring National Meeting, San Antonio, TX, April 28-May 2, 2013.
98. Dinh, H., Zhang, S. J., Zhang, J., Xu, Q., "An Ethylene Plant Start-up with Total Recycles: Dynamic Simulation of De-Ethanizer Transient Behaviors", AIChE Spring National Meeting, San Antonio, TX, April 28-May 2, 2013.
99. Eljack, F. T., El-Halwagi, M., Xu., Q., "A Process-Integration Framework for Abnormal Situation Management (ASM): A Systematic Approach with Application to Qatar's Industrial Needs and Opportunities", AIChE Spring National Meeting, San Antonio, TX, April 28-May 2, 2013.
100. Wang, Z. Y., Zhang, J., Xu, Q., Ho, T. C., "Effect of Crosswind On Flaring Combustion Efficiency and Subsequent Increase in 8-Hr Ozone Concentration in the Houston-Galveston Ozone-Nonattainment Area", AIChE Spring National Meeting, San Antonio, TX, April 28- May 2, 2013.
101. Zhang, S. J., Zhang, J., Xu, Q., "Dynamic Simulation for Distillation Column Start-ups in An Ethylene Plant", AIChE Spring National Meeting, San Antonio, TX, April 28-May 2, 2013.
102. Cai, T. X., Xu, Q., "HAZOP Analysis and Debottleneck for Laboratory Operation in the Semiconductor Industry", AIChE Spring National Meeting, San Antonio, TX, April 28-May 2, 2013.

103. Xu, Q. "Proactive and Profitable Emission Reduction for Chemical Process Industry", 2012 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, October 26, 2012.
104. Fu, J., Xu, Q. "Plant-wide Dynamic Modeling and Simulation for An Ethylene Plant", 2012 CAPA (Chinese American Petroleum Association) Petroleum and Petrochemical Technical Symposium, Houston, Texas, October 26, 2012.
105. Wang, S., Eick, C., Xu, Q., "A Space-time Analysis Framework for Mining Geospatial Datasets", CyberGIS'12 the First International Conference on Space, Time, and CyberGIS, University of Illinois at Urbana-Champaign, Champaign, IL August 6-9, 2012.
106. Zhang, J., Wang, M. Q., Fu, J., Zhao, C. Y., Zhang, S. J., Krishnadevarajan, K., Xu, Q., Li, K. Y., "Use Dynamic Simulation to Minimize Flare Emissions During Ethylene Plant Shutdown", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
107. Wang, M. Q., Zhang, J., Xu, Q., "Operation Flexibility Study for Newly Designed Liquefied Natural Gas Receiving Terminals", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
108. Wang, Z. Y., Zhang, J., Xu, Q., Ho, T. C., "Ozone Impacts of Flaring Emissions Considering Crosswind Effects", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
109. Cai, T. X., Xu, Q. "Scheduling for Multiple Chemical Plant Turnarounds to Minimize Regional Air Quality Impacts", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
110. Cai, T. X., Xu, Q. "Optimization of Agile Energy Network for System Design and Dispatch Under Emergency", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
111. Cai, T. X., Xu, Q. "Chemical Transportation Network Optimization Under Extreme Weather Conditions", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
112. Cai, T. X., Xu, Q. "Uncertainty Relationship Analysis for Multi-Parametric Programming in Modeling and Optimization", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
113. Dinh, H., Zhang, J., Xu, Q. "Exergy-Loss-Minimization Based Process Synthesis for Cascade Refrigerant System in Ethylene Plants", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
114. Zhao, C. Y., Fu, J., Xu, Q. "Simultaneous Design and Scheduling of a Material Handling System", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
115. Zhao, C. Y., Xu, Q. "Simultaneous Hoist Scheduling and 2D Production Line Design for Multi-Stage Material Handling", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
116. Xu, Q., Zhang J. "Multi-Scale Dynamic Simulation and Optimization for Simultaneous Chemical Plant Emission Reduction and Regional Air Quality Improvement", AIChE Annual National Meeting, Pittsburgh, PA, October 28 - November 2, 2012.
117. Dinh, H., Zhang, J., Xu, Q. "Study on Cascade Refrigerant and Mixed-Refrigerant Systems for Ethylene Plants", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
118. Zhang, J., Xu, Q., Ho, T. C. "Impact of Flaring Emissions on Regional Air Quality Associated with An Ethylene Plant Start-up", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.

119. Zhang, S. J., Wang, M. Q., Krishnadevarajan. K., Xu, Q., Li, K. Y. "Dynamic Simulation of Demethanizer and Chilling Train System", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
120. Zhao, C. Y., Xu, Q. "Material Handling and Production Line Debottleneck Optimization", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
121. Zhao, C. Y., Fu, J., Xu, Q., "Coupling Hoist Scheduling and Job Queue Optimization", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
122. Zhao, C. Y., Fu, J., Xu, Q. "Dynamic Simulation of CGC System Under Ethylene Plant Turnarounds", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
123. Fu, J., Zhao, C. Y., Xu, Q. "Optimal Design of the Integrated CGC and Depropanization System for An Ethylene Plant", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
124. Wang, M. Q., Zhang, J., Xu, Q. "Thermodynamic-Analysis-Based Design for Liquefied Natural Gas Receiving Terminal", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
125. Krishnadevarajan. K., Zhang, J., Xu, Q., Li, K. Y. "Study on the Integrated Chilling Train and Mixed Refrigerant System for An Ethylene Plant", AIChE Spring National Meeting, Houston, TX, April 1-5, 2012.
126. Zhang, J., Wang, M. Q., Xu, Q., Li, K. Y. "Exergy-Based Optimization for Mixed Refrigerant Systems", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
127. Zhang, J., Xu, Q., Ho, T. C. "Reducing Air Quality Impact From Plant Start-up Emissions by Integrating Air Quality Modeling and Plant Start-up Simulation", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
128. Zhang, J., Xu, Q. "Simultaneously Increasing Profit and Reducing Emissions Through Process Optimization for Integrated Petrochemical Plants", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
129. Zhao, C. Y., Fu, J., Xu, Q. "Real-Time and Rigorous Dynamic Hoist Scheduling", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
130. Zhao, C. Y., Xu, Q. "Scheduling for Performance-Decaying Cracking Furnace Operation with Consideration of Inherent Process Upset Reduction", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
131. Zhao, C. Y., Xu, Q. "Simultaneous Optimization of Hoist Scheduling and Production Line Arrangement", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
132. Cai, T. X., Xu, Q. "Proactive Emission Source Detection and Evaluation with Air Quality Monitoring Network", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
133. Cai, T. X., Xu, Q. "Scheduling of Multiple Chemical Plant Start-Ups for Minimizing Regional Air Quality Impacts", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
134. Cai, T. X., Xu, Q. "Energy Network Dispatch Optimization Under Emergent Events of Local Energy Shortage", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
135. Wang, M. Q., Zhang, J., Xu, Q., Li, K. Y. "Optimal Synthesis of Refrigeration System for Natural Gas Liquefaction", AIChE Annual National Meeting, Minneapolis, MN, October 16- 21, 2011.
136. Wang, M. Q., Zhang, J., Xu, Q. "A Novel Conceptual Design for Liquefied Natural Gas Receiving Terminals", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.

137. Fu, J., Zhao, C. Y., Yang, X. T., Liu, C. W., Xu, Q., Li, K. Y. "Study On Energy Consumption and Emission Generation for A Chemical Plant Under Different Start-up Strategies", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
138. Krishnadevarajan, K., Zhang, J., Xu, Q. "Optimization and Thermodynamic Analysis of Mixed Refrigerant System in Ethylene Plants", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
139. Liu, C. W., Zhao, C. Y., Xu, Q. "Integration of Electroplating Process Design and Operation for Simultaneous Productivity Maximization, Energy Saving, and Freshwater Minimization", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
140. Yang, X. T., Xu, Q., Li, K. Y. "Application of Plant-Wide Dynamic Simulation for Safety Operation of An Ethylene Oxide Plant", AIChE Annual National Meeting, Minneapolis, MN, October 16-21, 2011.
141. Yang, X. T., Xu, Q., Li, K. Y. "Risk-analysis Based Flare Load Reduction During Ethylene Plant Upsets", AIChE Annual Spring Meeting, Chicago, IL, March 13-17, 2011.
142. Wang, M. Q., Zhang, J., Xu, Q. Li, K. Y. "Study on Energy Consumption for Natural Gas Liquefaction", AIChE Annual Spring Meeting, Chicago, IL, March 13-17, 2011.
143. Li, K. Y., Xu, Q. "Flare Minimization via Dynamic Simulation", the 23rd Ethylene Producers' Conference, Chicago, IL, March 13-17, 2011.
144. Zhang, J., Xu, Q. "Profitable Emission Reduction in Petroleum Refineries", AIChE Annual Spring Meeting, Chicago, IL, March 13-17, 2011.
145. Zhang, J., Xu, Q. "Thermodynamic Study on Refrigeration System and Application Analysis", AIChE Annual Spring Meeting, Chicago, IL, March 13-17, 2011.
146. Liu, C. W., Yang, X. T., Xu, Q., Li K. Y. "Energy Consumption Analysis for An Ethylene Plant Start-up", AIChE Annual Spring Meeting, Chicago, IL, March 13-17, 2011.
147. Yang, X. T., Xu, Q., Li, K. Y. "Study on a Cryogenic Separation System under Abnormal Situations via Dynamic Simulation", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
148. Yang, X. T., Xu, Q., Li, K. Y. "Simulation and Optimization for Product Loss Reduction in a Chemical Plant", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
149. Yang, X. T., Xu, Q., Li, K. Y. "Preventing Thermal Runaway Reaction of Ethylene Oxidation via Plant-wide Dynamic Simulation", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
150. Liu, C. W., Xu, Q. "Coupling Electroplating Process Design and Operation for Simultaneous Productivity Maximization, Energy Saving, and Wastewater Minimization", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
151. Liu, C. W., Xu, Q., Li K. Y. "Flaring Emission Source Characterization during An Ethylene Plant Start-up" (poster), AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
152. Wen, Y. Q., Zhang, J., Xu, Q., "Optimization of Crude Oil Purchasing and Blending under Uncertainties", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
153. Zhang, J., Wen, Y. Q., Xu, Q. "Exergy-Analysis based Refrigeration System Synthesis at Ethylene Plants", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
154. Mittal, V., Zhang, J., Xu, Q., "Developing E3 Crude oil Blending Strategy for Petroleum Refineries", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
155. Zhao, C. Y., Liu, C. W., Xu, Q. "Reactive Scheduling for Ethylene Cracking Furnace System", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.
156. Fu, J. Zhao, C. Y., Xu, Q. "Coupling Water-Reuse Network Designs for Agile Manufacturing", AIChE Annual National Meeting, Salt Lake City, UT, November 7-12, 2010.

157. Liu, C. W., Yang, X. T., Xu, Q., Li, K. Y. "Proactive Flare Minimization during Chemical Plant Startups", AIChE Annual Spring Meeting, San Antonio, TX, March 21-25, 2010.
158. Zhang, J., Xu, Q. "Optimization of Chilling Chain and Refrigeration System for Ethylene Plant", AIChE Annual Spring Meeting, San Antonio, TX, March 21-25, 2010.
159. Liu, C. W., Zhang, J. Xu, Q., Gossage, J. L. "Flare Minimization at LNG Receiving Terminal", AIChE Annual Spring Meeting, San Antonio, TX, March 21-25, 2010.
160. Yang, X. T., Xu Q., Li, K. Y. "Computer-Aided Chemical Plant Startup Operation", AIChE Annual Spring Meeting, San Antonio, TX, March 21-25, 2010.
161. Yang, X. T., Xu Q., Li, K. Y. "Study on Flare Minimization during Ethylene Plant Upsets", AIChE Annual Spring Meeting, San Antonio, TX, March 21-25, 2010.
162. Liu, C. W., Xu, Q., "Optimal Design and Operation for Environmentally Benign Electroplating", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
163. Liu, C. W., Yang, X. T., Xu, Q., Li, K. Y. "Flare Minimization for Ethylene Plant Startup Operation", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
164. Liu, C. W., Zhao, C. Y., Xu, Q., "Optimal Scheduling for Ethylene Cracking Furnace System", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
165. Yang, X. T., Xu, Q., Li, K. Y. "Dynamic Simulation and Optimization for Startup Operation of Ethylene Oxidation Production" (poster), AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
166. Wen, Y. Q., Zhang, J., Xu Q., "Integrated Crude Oil Blending and Scheduling for Petroleum Refinery", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
167. Zhang, J., Xu, Q., "Dynamic Simulation of Ethylene Refrigeration and Low-Temperature Separation", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
168. Zhang, J., Xu, Q., "Regional Air Quality Improvement via Startup Plan Optimization for Multiple Chemical Plants" (poster), AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
169. Fu, J., Zhao, C. Y., Xu, Q., Li, K. Y. "Modeling and Dynamic Simulation for Silicon Production through Silane Pyrolysis", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
170. Xu, Q., Zhang J., Yang, X. T., Liu, C. W., Wen, Y. Q., Zhao, C. Y., Fu, J., Li, K. Y. "Study on Emission Reduction for Chemical Industry Sustainability", AIChE Annual National Meeting, Nashville, TN, November 8-13, 2009.
171. Xu, Q., Li, K. Y., Zhang J., Yang, X. T., Liu, C. W. "Near-zero Flaring Study for Chemical Plant Sustainability", AIChE Spring National Meeting, Tampa, FL, April 26-30, 2009.
172. Xu, Q., Li, K. Y., Liu, C. W., Yang, X. "Flare Minimization for Chemical Process Industry Sustainability," AIChE Annual National Meeting, Philadelphia, PA, Nov. 16-21, 2008.
173. Yang, X., Xu Q., Li, K. Y., "Dynamic Simulation for Better Performance of Multi-Stage Compression System during Plant Startup," AIChE Annual National Meeting, Philadelphia, PA, Nov. 16-21, 2008.
174. Liu, C. W., Xu, Q., "Simultaneous Optimization of Cyclic Hoist Scheduling and Water-Reuse Network Design for Environmentally Benign Manufacturing," AIChE Annual National Meeting, Philadelphia, PA, Nov. 16-21, 2008.
175. Zhang, J., Xu, Q., "Bi-level Planning for Profit Increment in Petroleum Industry," AIChE Annual National Meeting, Philadelphia, PA, Nov. 16-21, 2008.
176. Wen, Y. Q., Zhang, J., Xu, Q., "Eliminating Gaps Between Advanced Planning and Scheduling Models," AIChE Annual National Meeting, Philadelphia, PA, Nov. 16-21, 2008.
177. Wen, Y. Q., Fu, J., Liu, C. W., Yang, X., Zhang, J., Xu, Q., and Li, K. Y. "Integration of Planning, Scheduling, and Dynamic Simulation and Optimization for Industrial Profit Increment", 1st Annual Gulf Coast Innovation Conference, Houston, TX, November 18, 2008.

178. Xu, Q., Lou, H. H., Li, K. Y., "Sustainability Curriculum Development at Lamar University," AIChE Annual National Meeting, Salt Lake City, UT, Nov. 3-9, 2007.
179. Xu, Q., Li, K. Y., Yang, X. T., Liu, C. W., Romero R. O., "Flare Minimization toward Zero Flare for Chemical Plant Turnaround Operation via Dynamic Simulation", AIChE Annual National Meeting, Salt Lake City, UT, Nov. 3-9, 2007.
180. Liu, C. W., Xu, Q., Li, K. Y., "Integration of Cyclic Scheduling and Dynamic Optimization for Parallel Units Operation with Decaying Performance," AIChE Annual National Meeting, Salt Lake City, UT, Nov. 3-9, 2007.
181. Li, C., He, X. R., Chen, B. Z., Xu, Q., Liu, C. W., "A hybrid programming model for optimal production planning under demand uncertainty in refinery," AIChE Annual National Meeting, Salt Lake City, UT, Nov. 3-9, 2007.
182. Xu, Q., "Integration of Cyclic Hoist Scheduling and Water-Reuse Network Design for Environmentally Benign Manufacturing", AIChE Annual National Meeting, San Francisco, CA, Nov. 12-17, 2006.
183. Liu, C. W., He, X. H., Chen, B. Z., Xu, Q., "Process Cost Modeling and Production Planning for Petrochemical Industries under Uncertainties", AIChE Annual National Meeting, San Francisco, CA, Nov. 12-17, 2006.
184. Wang, R. Q., He, X. H., Chen, B. Z., Xu, Q., "Optimal Integration of Production Planning and Process Operation in Petrochemical Industry", AIChE Annual National Meeting, San Francisco, CA, Nov. 12-17, 2006.
185. Jadhave, M. S. and Xu, Q., "Investigation of Ecological Services Impacts from Biofuel Production"(poster), AIChE Annual Meeting, San Francisco, CA, Nov. 12-17, 2006.
186. Xu, Q., and Huang, Y. L., "Extended Input-Output Analysis for System Sustainability Assessment and Prediction", AIChE Annual National Meeting, Cincinnati, OH, October 30-November 4, 2005.
187. Xu, Q., and Huang, Y. L. "Real-time Dynamic Hoist Scheduling under Uncertainties", AIChE Annual National Meeting, Cincinnati, OH, October 30-November 4, 2005.
188. Xu, Q., Huang, Y. L., Lou, H. H., Singh, A., and Hu, S. Y. "Mass and Energy Flow Plasticity: A Mathematical Foundation for Sustainable Industrial Development", AIChE Annual National Meeting, Austin, TX, November 7-12, 2004.
189. Xu, Q., Piluso, C., Huang, Y. L. "Structural Rejection of Security Sensitive Disturbances via Process Modification", AIChE Annual National Meeting, Austin, TX, November 7-12, 2004.
190. Xu, Q., Huang, Y. L., Lou H. H., and Arnesh, T. "Integrated Electroplating System Modeling, Design, and Operation for Near Zero Discharge of Chemicals and Metals", AIChE Annual National Meeting, Austin, TX, November 7-12, 2004.
191. Piluso, C., Xu, Q. and Huang, Y. L. "Large-scale Dynamic Simulation Based Process Design for Security Improvement of Chemical Plants", AIChE Annual National Meeting, Austin, TX, November 7-12, 2004.
192. Telukdarie, A, Xu, Q., Huang, Y. L., and Lou, H. H. "Integrated Plating System Modeling for Environmentally Clean Operation", AESF/EPA Conference on Environmental and Process Excellence, Orlando, FL, U.S.A., January 26-29, 2004.
193. Xu, Q., Huang, Y. L., Kuntay I., and Lou, H. H. "Integrated Design and Control for Environment (IDCfE): A Hierarchical Optimization Approach", AIChE Annual National Meeting, San Francisco, CA, November 16-21, 2003.

Membership

- Full Member, Sigma Xi, The National Scientific Honor Society

- Senior Member, American Institute of Chemical Engineers (AIChE)
- Member, AIChE Sustainable Engineering Forum (AIChE SEF)
- Member, AIChE Process Development Division (AIChE PDD)
- Member, AIChE Computing and Systems Technology Division (AIChE CAST)
- Member, Mathematical Association of America (MAA)
- Member, Society for Industrial and Applied Mathematics (SIAM)
- Member, Chinese American Petroleum Association (CAPA)

Reviewer Experience

- Journal Reviewer
  1. AIChE Journal
  2. Applied Mathematical Modeling
  3. Applied Energy
  4. Asia-Pacific Journal of Chemical Engineering
  5. Brazilian Journal of Chemical Engineering
  6. Chemical Engineering Communications
  7. Chemical Engineering Science
  8. Chemical Engineering & Technology
  9. Chemical Product and Process Modeling
  10. Chinese Journal of Chemical Engineering
  11. Clean Technologies and Environmental Policy
  12. Computers & Chemical Engineering
  13. Desalination
  14. Energy
  15. Energy & Fuels
  16. Engineering Science and Technology, an International Journal
  17. Environmental Engineering and Management Journal
  18. Environmental Progress & Sustainable Energy
  19. Environmental Pollution
  20. Environmental Science & Technology
  21. Environmental Science & Technology Letters
  22. Fuel Processing Technology
  23. IEEE Transactions on Industrial Electronics
  24. IEEE Transactions on Energy Conversion
  25. IEEE Transactions on Automation Science and Engineering
  26. Industrial & Engineering Chemistry Research
  27. International Journal of Chemical Reactor Engineering
  28. International Journal of Heat and Mass Transfer
  29. International Journal of Hydrogen Energy
  30. International Journal of Oil, Gas and Coal Technology (IJOGCT)
  31. International Journal of Process Systems Engineering
  32. Journal of Chemical and Process Engineering
  33. Journal of Chemical Engineering & Process Technology
  34. Journal of Chemical Engineering of Japan
  35. Journal of Natural Gas Science & Engineering
  36. Journal of Renewable and Sustainable Energy

37. Journal of the Taiwan Institute of Chemical Engineers
38. Kirk-Othmer Encyclopedia
39. Process Safety and Environmental Protection
40. QScience Connect
41. Sensors
42. The Canadian Journal of Chemical Engineering

- Conference Paper Reviewer
  - FOCAPD 2009
  - 2010 American Control Conference
  - 2011 American Control Conference
  - 2012 American Control Conference

Chair Sessions in International Conferences

1. Chair, Session on Process Research and Development for Industrial Sustainability, San Antonio, TX, March 26-30, 2017.
2. Co-Chair, Session on Technology Transfer & Manufacturing, San Antonio, TX, March 26-30, 2017.
3. Chair, Session on Process Research and Development for Industrial Sustainability, AIChE Annual Meeting, San Francisco, CA, November 13-18, 2016.
4. Chair, Session on Process Research and Development for Industrial Sustainability I, AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
5. Chair, Session on Process Research and Development for Industrial Sustainability II, AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
6. Chair, Session on Advanced Technologies for Reduction of Atmospheric Emissions in the Petrochemical and Refining I, AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
7. Chair, Session on Advanced Technologies for Reduction of Atmospheric Emissions in the Petrochemical and Refining II, AIChE Spring Meeting, Houston, TX, April 10-14, 2016.
8. Chair, Session on Process Research and Development for Industrial Sustainability, AIChE Annual Meeting, Salt Lake City, UT, November 8-13, 2015.
9. Chair, Session on Process Reengineering for Energy Saving and Pollution Prevention, AIChE Fall Meeting, Salt Lake City, UT, November 8-13, 2015.
10. Chair, Session on Session 14 - Computational 4, 12th International Conference on Gas-Liquid & Gas-Liquid-Solid Reactor Engineering (GLS12), New York, NY, June 27 - July 2, 2015.
11. Chair, Session on Process Research and Development for Industrial Sustainability III, AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
12. Chair, Session on Process Research and Development for Industrial Sustainability IV, AIChE Spring Meeting, Austin, TX, April 26-30, 2015.
13. Chair, Session on Process and Product Development for Sustainability I, AIChE Annual Meeting, Atlanta, GA, November 16-21, 2014.
14. Chair, Session on Process and Product Development for Sustainability II, AIChE Annual Meeting, Atlanta, GA, November 16-21, 2014.
15. Chair, Session on Process Research and Development for Industrial Sustainability, AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.
16. Co-Chair, Session on Environmental and Water Solutions, AIChE Spring Meeting, New Orleans, LA, March 30 - April 3, 2014.

17. Chair, Session on Process and Product Development for Sustainability, AIChE Annual Meeting, San Francisco, CA, October 28- November 2, 2013.
18. Chair, Session on Process Development for Industrial Sustainability, AIChE Spring Meeting, San Antonio, TX, April 28 - May 2, 2013.
19. Co-Chair, Session on Technology Advancement for Industrial Flare Minimization, AIChE Spring Meeting, San Antonio, TX, April 28 - May 2, 2013.
20. Chair, Session on Process and Product Development for Sustainability I, AIChE Annual Meeting, Pittsburgh, PA, October 28- November 2, 2012.
21. Chair, Session on Process and Product Development for Sustainability II, AIChE Annual Meeting, Pittsburgh, PA, October 28- November 2, 2012.
22. Co-Chair, Session on Applications of Process Synthesis, AIChE Annual Meeting, Pittsburgh, PA, October 28- November 2, 2012.
23. Co-Chair, Session on Sustainable Energy in Practice I, AIChE Spring Meeting, Houston, TX, April 1-5, 2012.
24. Chair, Session on Process and Product Development for Sustainability, AIChE Annual Meeting, Minneapolis, MN, Oct. 16-21, 2011.
25. Chair, Session on Process and Product Development for Sustainability, AIChE Annual Meeting, Salt Lake City, UT, Nov. 7-12, 2010.
26. Chair, Session on Innovations in Environmental Emission Abatement, AIChE Spring Meeting, San Antonio, TX, March 21-25, 2010.
27. Chair, Session on Process and Product Development for Sustainability, AIChE Annual Meeting, Nashville, TN, Nov. 8-13, 2009.
28. Chair, Session on Process Development for Sustainability I, AIChE Annual Meeting, Philadelphia, PA, Nov. 16-21, 2008.
29. Chair, Session on Process Development for Sustainability II, AIChE Annual Meeting, Philadelphia, PA, Nov. 16-21, 2008.
30. Vice Chair, Session on Green Chemistry and Engineering for Sustainability, AIChE Annual Meeting, Salt Lake City, UT, Nov. 3-9, 2007.
31. Vice Chair, Session on Design, Algorithms and Applications II, AIChE Annual Meeting, Salt Lake City, UT, Nov. 3-9, 2007.
32. Vice Chair, Session on Modeling for PAT, AIChE Annual National Meeting, San Francisco, CA, November 12-17, 2006.
33. Vice Chair, Session on Integrating Risk and Uncertainty Analysis in Chemical Manufacturing, AIChE Spring National Meeting, Atlanta, GA, April 10-14, 2005.
34. Vice Chair, Session on Advances in Manufacturing Tech., AIChE Annual National Meeting, Cincinnati, OH, October 30-November 4, 2005.