

CURRICULUM VITAE

September 7, 2011

Reza Khoshbin, M.Sc.

Reactor & Catalysis Research Center
Sahand University of Technology

• Personal Information:

Name: Reza
Surname: Khoshbin nalkiashari
Date of Birth: 18 July 1986
Place of Birth: Tehran, Tehran, Iran
Nationality: Iranian
Marital Status: Single



• Address:

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• Education:

2009-Date: M.Sc., Chemical Engineering, Sahand University of Technology, Tabriz, Iran.
Thesis: Synthesis of Copper and Zinc Oxide Nanocatalysts Based On H-ZSM-5 Support For Direct Conversion of Synthesis Gas To Dimethyl Ether
2005-2009: B.Sc., Chemical Engineering, Semnan University, Semnan, Iran.
Thesis: "review to methods of nanopigments preparation and its applications"

• Research Interests:

Reaction Engineering: Catalysis and Reactor Design.
Kinetics and modeling of chemical reactions.
Natural Gas Conversions and Utilization.
Environmental Engineering: Wastewater Control and Treatment.
Gas hydrate removal and applications

• Language Skills:

English, Persian

• AWARDS

- [1] Gaining of 31th rank in the 13th national Scientific Olympiad on Chemical engineering, July 15-18, 2008 Shahid Beheshti University Tehran, Tehran, Iran.

• Professional Memberships:

2009-Date: Reactor & Catalysis Research Center, RCRC, Sahand University of Technology, Sahand New Town, Tabriz, Iran.

2008-Date SPE (Society of Petroleum Engineering), Member (2008 to now).

• Publications & Presentations:

- [1] R. khoshbin, A. Salem, "review to methods of elimination of NO_x emission in power plant burners" Sahand University of Technology, Tabriz, Iran, 28 October 2009.
- [2] R. khoshbin, M. Haghighi, " Evaluation of DME Conversion Methods to Hydrocarbons "Sahand University of Technology, Tabriz, Iran, 28 October 2009.
- [3] R. khoshbin, E. fatehifar, "study of kinetic modeling of hydrogenation of sulfur dioxide reaction" Sahand University of Technology, Tabriz, Iran, 26 September 2009.
- [4] R. Khoshbin and M. Haghighi, "Comparative Study of CuO-ZnO-Al₂O₃/HZSM-5 Nanocomposite Synthesis via Batch Co-precipitation, Semibatch Co-precipitation and Combined Co-Precipitation- Ultrasound Methods", Reaction Kinetics, Mechanisms and Catalysis (under review).
- [5] R. Khoshbin and M. Haghighi, "Urea-Nitrate Combustion Synthesis and Physicochemical Characterization of CuO-ZnO-Al₂O₃/HZSM-5 Nanocomposites" (under review).
- [6] R. Khoshbin and M. Haghighi, N. Asgari, "Dimethyl ether Synthesis from Syngas over Admixed Catalysts with HNO₃ Modified Clinoptilolite as Methanol Dehydration Components: Surface Properties and Catalytic Performanc" (under review).
- [7] R. Khoshbin and M. Haghighi, "Alternative Route for Nanocatalyst Preparation: Beneficial Role of Use of Ultrasound for the Preparation of CuO-ZnO-Al₂O₃/HZSM-5 Nanocatalyst and Their activity for Direct Synthesis of DME" (under review).
- [8] R. Khoshbin and M. Haghighi, "Preparation and Catalytic Performance of CuO-ZnO-Al₂O₃/Clinoptilolite Nanocatalyst for Single-Step Synthesis of Dimethyl Ether from Syngas" (under review).
- [9] R. Khoshbin and M. Haghighi, "Effect of Aging Time on Physicochemical and Catalytic Properties of CuO-ZnO-Al₂O₃/HZSM-5 Nanocatalyst for Direct Conversion of Syngas to Dimethyl Ether" (under review).
- [10] R. Khoshbin and M. Haghighi, "Synthesis and Characterization of CuO-ZnO-Al₂O₃/ZSM-5 Nanocatalyst via Co-precipitation Method", The 3rd International Congress on Nanoscience and Nanotechnology, ICNN2010, 9-11 November, 2010, Shiraz University, Shiraz, Iran.
- [11] R. Khoshbin and M. Haghighi, "Effects of Diluent on NO_x Formation in Methane Counterflow Flames", 13th Iranian National Chemical Engineering Congress & 1st International Regional Chemical and Petroleum Engineering, 25-28 October, 2010, Razi University, Kermanshah, Iran.
- [12] R. Khoshbin and M. Haghighi, "Effect of Dilution Rate and Fuel/Air Ratio on NO_x Emissions from Countercurrent Syngas Flares", The 4th Conference and Exhibition on Environmental Engineering, CELCO89, November 2010, Tehran University, Tehran, Iran.
- [13] R. Khoshbin and M. Haghighi, "Ultrasound Assisted Co-precipitation Synthesis of CuO-ZnO-Al₂O₃/ZSM-5 Nanocatalyst", 13th Iranian National Chemical Engineering Congress & 1st International Regional Chemical and Petroleum Engineering, 25-28 October, 2010, Razi University, Kermanshah, Iran.
- [14] R. Khoshbin and M. Haghighi, "Evaluation of Performance of Catalysts Used in Direct and Indirect Conversion of Syngas to DME", The 2nd National Congress on Fuel, Energy and Environment, 2NCFEE, 19-20 May 2010, Kermanshah University of Technology, Kermanshah, Iran
- [15] R. Khoshbin and M. Haghighi, "Effect of Aging Time on Properties of CuO-ZnO-Al₂O₃/ZSM-5 Nanostructured Catalyst Synthesized via Continuous Co-precipitation Method", 13th Iranian National Chemical Engineering Congress & 1st International Regional Chemical and Petroleum Engineering, 25-28 October, 2010, Razi University, Kermanshah, Iran.
- [16] R. Khoshbin and M. Haghighi, "Synthesis and Evaluation of Nanostructured Catalysts for Direct Conversion of Syngas to DME with Precipitation-Ultrasound Method", 11th Student Congress on Nanotechnology, 25-26 March, 2012, Amir Kabir University of Technology, Tehran, Iran

• Previous projects:

- [1] Enhancement of Physico-Chemical Properties of Clinoptilolite Nanoparticles via NH₄Cl Treatment, RCRC, SUT (2011).
- [2] Evaluation affective parameters on synthesis of ZnO/CuO/Al₂O₃ Nanocomposite via combustion method, RCRC, SUT(2011).

- [3] Alternative use of fossil fuels and synthesis of advanced materials for value-added utilization of fossil fuel resources (eg. natural gas) RCRC, SUT(2010-2011).
- [4] Development of advanced methods (eg., ultrasound, ...) for synthesis of ZnO/CuO/Al₂O₃/ZSM-5 Nanocatalysts for production of valuable hydrocarbons from syngas, RCRC, SUT(2010-2011).

- **COMPUTER SKILLS**

- [1] Office programs
- [2] Computational programs: MATLAB, Polymath

- **TRAINING AND WORK EXPERIENCE**

- [1] "Evaluation of red yeast rice (*Monascus*) applications in preparation of red pigments" Institute for color science and technology, Tehran, Iran, (2008).

- **Workshops:**

- [1] M. Haghighi, N. Asgari, R. khoshbin "education of gas chromatography principals", Reactor & Catalysis Research Center, Sahand University of Technology, Tabriz, Iran, 2011.

- **COURSES COVERED IN MASTERS OF SCIENCE (M.SC)**

1. Advanced Mass Transfer
2. Advanced fluid mechanic
3. Advanced Reactor Design
4. Advanced Thermodynamic
5. Advanced Engineering Mathematics
6. Optimization of Chemical processes
7. Advanced combustion and fuel
8. Heterogeneous catalyst
9. Seminar
10. Final Projects (Thesis)