Mehran Rezaei

Professor in Chemical Engineering

Catalyst and Advanced Materials Research Laboratory (CAMRL), Chemical Engineering Department - University of Kashan
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Birthday: 20/09/1977
Nationality: Iranian

Education

Ph.D. Chemical Engineering, Iran University of Science and Technology, 2002-2007.
M.Sc. Chemical Engineering, Iran University of Science and Technology, 2000-2002.
B.Sc. Chemical Engineering, Isfahan University, 1996-2000.

Research Interests

- Heterogeneous Catalysis&Porous Materials
- Natural Gas Catalytic Conversion&Processing
- H_2 Production and Purification
- Characterization and Application of Mesoprous Materials
- Nanocatalysis and Nanomaterials.
- Reaction Engineering

Industrial Experiences

- Sarv Oil and Gas Industries Development Co., 2006-Present. (Catalyst Research and Engineering Manager)
- State Key Laboratory for Heavy Oil Processing, Key Laboratory of Catalysis, CNPC, China,2005-2006.

- Haldor Topsoe A/S company, Denmark , 2005.
- Iran Barit Company, 2003-2005.
- Ross Kimia Company, 2001-2003.
- Karkanehe Chini Iran, 2000.

Industrial Projects

- Preparation of methanation catalyst for hydrogen purification in Petrochemical and Petroleum industries in industrial scale, 2015.
- Preparation of high temperature water gas shift catalyst for hydrogen purification in Petrochemical and Petroleum industries in industrial scale, 2015.
- Preparation of promoted primary steam reforming catalysts in industrial scale for Petrochemical and Petroleum industries, 2013.
- Preparation of autothermal/secondary steam reforming catalysts in industrial scale for Petrochemical industries, 2014.
- Preparation of partial oxidation catalysts in industrial scale, 2014.
- Preparation of prereforming catalyst in bench scale, 2014.
- Preparation of Platforming catalyst in bench scale, 2013.
- Preparation of ammonia synthesis catalyst in bench scale, 2013.
- Preparation of Direct reduction of iron catalysts (Midrex catalysts) in industrial scale for Steel industries, 2008.
- Preparation of primary steam reforming catalysts in industrial scale for Petrochemical and Petroleum industries, 2006.

Graduate and Undergraduate Courses

- Basic Principles and Calculations in Chemical Engineering
- Construction Processes I & II
- Chemical Reaction Engineering.
- Advanced Chemical Reaction Engineering.
- Heterogeneous catalysis
- Nanocatalysis

Awards and honors

- Ranked as 1% Top World Scientists based on Citation, ISI Web of Science, January, 2016.
- Awarded as Young Scientist of the Iranian Academy of Science In chemical Engineering, 2017.
- Awarded as one of the top 10 researchers in the field of nanotechnology in Iran, 2016.
- Research Excellence Award, Ministry of Science, Research and Technology, 2014.
- Khwarizmi Youth Award (Rank. 1, Fundamental researches), 2016.
- Research Excellence Award in 2012, Isfahan Province.
- Research Excellence Award in 2010, Isfahan Province.
- Research Excellence Award in 2016, University of Kashan
- Technology Excellence Award in 2016, University of Kashan
- Research Excellence Award in 2015, University of Kashan

- ❖ Technology Excellence Award in 2015, University of Kashan
- ❖ Technology Excellence Award in 2014, University of Kashan
- ❖ Technology Excellence Award in 2012, University of Kashan
- ❖ Research Excellence Award in 2013, University of Kashan
- ❖ Research Excellence Award in 2012, University of Kashan.
- ❖ Research Excellence Award in 2011, University of Kashan.
- ❖ Research Excellence Award in 2010, University of Kashan.
- ❖ Research Excellence Award in 2008, University of Kashan (Faculty of Engineering).
- ❖ Teaching Excellence Award in 2008, University of Kashan (Faculty of Engineering).
- ❖ Distinguished as one of the top 20 researchers in the field of nanotechnology in Iran, 2008.
- ❖ Distinguished as one of the top 15 researchers in the field of nanotechnology in Iran, 2007.
- ❖ The highest-ranked researcher in chemical engineering in the field of nanotechnology in Iran, 2007.
- ❖ The third highest-ranked researcher in chemical engineering in the field of nanotechnology in Iran, 2008.
- ❖ Khwarizmi Youth Award (Rank. 3, Fundamental researches), 2007.
- ❖ Awarded as the best student of the chemical engineering department, IUST University, 2007.
- ❖ Awarded as the best student of the chemical engineering department, IUST University, 2001.
- ❖ Awarded as the best student of the chemical engineering department, IUST University, 2000.

Publications

Journal Papers

1. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan ,Nanocrystalline zirconia as support for nickel catalyst in methane reforming with CO_2, Energy & Fuels 20 (2006) 923-929

2. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, Tetragonal nanocrystalline zirconia powder with high surface area and mesoporous structure, Powder Technology 168 (2006) 59–63.

3. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, Syngas production by methane reforming with carbon dioxide on noble metal catalysts, Journal of Natural Gas Chemistry 15 (2006) 327-334.

4. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Liu Xinmei, Ling Qian, Zi-Feng Yan, CO_2-CH_4 reforming over nickel catalysts supported on mesoporous nanocrystalline zirconia with high surface area, Energy&Fuels 21 (2007) 581-589..

5. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, J.H. Jacobsen, H. Teunissen, J.Sehested, Synthesis of pure tetragonal zirconium oxide with high surface area, Journal of Materials Science 42 (2007) 1228–1237.

6. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, Mesoporous nanocrystalline zirconia powders: A promising support for nickel catalyst in CH_4 reforming with CO_2, Materials Letters 61 (2007) 2628–2631

7. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, Synthesis of mesoporous nanocrystalline zirconia with tetragonal crystallite phase by using ethylene diamine as precipitation agent, Journal of material science, 42 (2007) 7086-7092.

8. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, CO_2 reforming of CH_4 over nanocrystalline zirconia-supported nickel catalysts, Appl. Catal. B., 77 (2007) 346.

9. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, Effect of process parameters on the synthesis of mesoporous nanocrystalline zirconia with triblock copolymer as template, Journal of porous materials, 15 (2008) 171-179

10. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan, Effects of K_2O promoter on the activity and stability of nickel catalysts supported on mesoporous nanocrystalline zirconia in CH_4 reforming with CO_2, Energy&Fuels, 22(4) (2008) 2195.

11. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan , Effect of CO2 content on the activity and stability of nickel catalyst supported on mesoporous nanocrystalline zirconia, Journal of Natural Gas Chemistry, 2008, 17 (2008) 278.

12. E. Navaei, M.R. Golmohammadi, **M. Rezaei**, H. Navaei, A. Mardanloo, S. Habibzad, M. Didari, Preparation and Thermal Treatment of Pd/Ag Composite Membrane by Sequentional Electroless Plating Technique, Journal of Natural Gas Chemistry, 17 (2008) 321.

13. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan Synthesis of ceria doped nanozirconia powder by a polymerized complex method, Journal of Poro

us Materials, 16 (2009) 497–505.

14. E. Navaei, **M. Rezaei**, H. Navaei, Zi-Feng Yan, Synthesis of Nanocrystalline $MgAl_2O_4$ Spinel by Using Ethylene Diamine as Precipitation Agent, Chemical Engineering Communications, 196 (2009) 1417-1424

15. M. Akia, S.M. Alavi, **M. Rezaei,** Zi-Feng, Optimizing the sol gel parameters on the synthesis of mesostructure nanocrystalline gamma-alumina, Microporous and Mesoporous Materials, 122 (2009) 72–78 .

16. **M.Rezaei**, S.M.Alavi, S.Sahebdelfar, Zi-Feng Yan , A highly stable catalyst in methane reforming with carbon dioxide, Scripta Materialia, 61 (2009) 173–176.

17. E. Navaei, **M. Rezaei**, Mesoporous nanocrystalline $MgAl_2O_4$ spinel and its applications as support for Ni catalyst in dry reforming, Scripta Materialia, Scripta Materialia, 61 (2009) 212–215.

18. Fereshteh Meshkani, **Mehran Rezaei**, Facile Synthesis of Nanocrystalline Magnesium Oxide with High Surface Area, Powder Technology, 196 (2009) 85–88.

19. M. Akia, S.M. Alavi, **M. Rezaei,** Zi-Feng Yan**,** Synthesis of high surface area as an efficient catalyst support for dehydrogenation of n-docecane, Journal of Porous Materials, 17 (2010) 85-90.

20. Fereshteh Meshkani, **Mehran Rezaei**, Effect of process parameters on the synthesis of nanocrystalline magnesium oxide with high surface area and plate-like shape by surfactant assisted precipitation method, Powder Technology,199 (2010) 144–148

21. A. Keshavarz, **M. Rezaei**, F. Yaripour, Nanocrystalline γ-Al_2O_3: A Highly Potential Catalyst for Dimethyl Ether Synthesis, Powder Technology, 199 (2010) 176–179.

22. E. Navaei, **M. Rezaei**, H. Navaei, Synthesis of Mesoporous Nanocrystalline $MgAl_2O_4$ Spinel via Surfactant Assisted Precipitation Route, Powder Technology, 198 (2010) 275-278.

23. **M. Rezaei**, M. Khajenoori, B. Nematolahi, Synthesis of High Surface Area Nanocrystalline MgO by Pluronic P123 Triblock Copolymer Surfactant, Powder Technology 199 (2010) 176–179.

24. F. Meshkani, **M. Rezaei**, Nanocrystalline MgO supported nickel-based bimetallic catalysts for carbon dioxide reforming of methane, International Journal of Hydrogen Energy, 35 (2010) 10295-10301.

25. J. Safari, S.D. Khalili, M. Rezaei, S.H. Banitaba,F. Meshkani, Nanocrystalline magnesium oxide: A novel and efficient catalyst for facile synthesis of 2,4,5-trisubstituted imidazole derivatives, Monatshefte fur Chemie, 141 (2010) 1339-1345

26. Fereshteh Meshkani, **Mehran Rezaei**, Nickel Catalyst supported on Magnesium oxide with High Surface Area and Plate-Like Shape: A Highly Stable and Active Catalyst in Methane Reforming with Carbon Dioxide, Catalysis Communications, 12 (2011) 1046-1050.

27. A. Keshavarz, **M. Rezaei**, F. Yaripour, Preparation of γ-Al_2O_3 catalyst using different procedures for methanol dehydration to dimethyl ether, Journal of Natural Gas Chemistry, 20 (2011) 334-338.

28. **Mehran Rezaei**, Majid Khajenoori, Behzad Nematollahi, Preparation of nanocrystalline MgO by surfactant assisted precipitation method, Materials Research Bulletin, 46 (2011) 1632-1637.

29. **M. Rezaei**, M. Khajenoori, B. Nematolahi, Combined Dry Reforming and Partial Oxidation of Methane to Synthesis Gas on Noble Metal Catalysts, International Journal of Hydrogen Energy, 36 (2011) 2969-2978.

30. **Mehran Rezaei**, Fereshteh Meshkani, Aboulfazl Biabani, Behzad Nematollahi, Atiyeh Ranjbar, Narges Hadian, Zeinab Mosayebi, Autothermal reforming of methane over Ni catalysts supported on nanocrystalline MgO with high surface area and plated-like shape, International Journal of Hydrogen Energy, 36 (2011) 11712-11717.

31. F. Meshkani, M. Rezaei, Ni catalysts supported on nanocrystalline magnesium oxide for syngas production by CO2 reforming of CH4, Journal of Natural Gas Chemistry, 20 (2011) 198-203.

32. Z. Mosayebi, **M. Rezaei**, N. Hadian, F. Zareie Kordshuli, F. Meshkani, Low temperature synthesis of nanocrystalline magnesium aluminate with high surface area by surfactant assisted precipitation method: Effect of preparation conditions, Materials Research Bulletin 47 (2012) 2154–2160.

33. A. Ranjbar, M. Rezaei, Preparation of nickel catalysts supported on CaO.2Al2O 3 for methane reforming with carbon dioxide, International Journal of Hydrogen Energy, 37 (2012) 6356-6362.

34. A. Biabani, **M. Rezaei**, Low temperature CO oxidation over Fe–Co mixed oxide nanocatalysts, Chemical Engineering Journal, 184 (2012) 141-146.

35. A. Biabani, **M. Rezaei**, Z. Fattah, Optimization of Preparation Conditions of Fe-Co Nanoparticles in Low-Temperature CO Oxidation Reaction by the Taguchi Design Method, Journal of Natural Gas Chemistry, 21(2012)415–420.

36. A. Ranjbar, **M. Rezaei**, Dry Reforming Reaction over Nickel Catalysts Supported on Nanocrystalline Calcium Aluminates with Different CaO/Al_2O_3 Ratios, Journal of Natural Gas Chemistry, 21 (2012) 178-183.

37. N. Hadian, **M. Rezaei**, Z. Mosayebi, F. Meshkani, CO_2 reforming of methane over nickel catalysts supported on nanocrystalline $MgAl_2O_4$ with high surface area, Journal of Natural Gas Chemistry, 21 (2012) 200-206.

38. H. Eltejaei, H. R. Bozorgzadeh, J. Towfighi, M. Reza Omidkhah, **M. Rezaei,** R. Zanganeh, A. Zamaniyan, A. Zarrin Ghalam, Methane dry reforming on Ni/Ce0.75Zr0.25O 2-MgAl2O4 and

Ni/Ce0.75Zr 0.25O2-γ-alumina: Effects of support composition and water addition, International Journal of Hydrogen Energy, 37 (2012) 4107-4118.

39. Z. Mosayebi, **M. Rezaei,** A.B. Ravandi, N. Hadian, Autothermal reforming of methane over nickel catalysts supported on nanocrystalline MgAl2O4 with high surface area, International Journal of Hydrogen Energy, 37 (2012) 1236-1242

40. B. Nematollahi, **M. Rezaei**, E. Nemati, M. Khajenoori, Thermodynamic analysis of combined reforming process using Gibbs energy minimization method: In view of solid carbon formation, Journal of Natural Gas Chemistry, 19 (2013) 234–23939.

41. A. Biabani, **M. Rezaei**, Z. Fattah, Synthesis of Fe-Co nanoparticles and its application in catalytic low-temperature CO oxidation, Process Safety and Environmental Protection, 91 (2013) 489-494.

42. A. Biabani, **M. Rezaei**, Z. Fattah, Catalytic performance of Ag/Fe2O3 for the low temperature oxidation of carbon monoxide, Chemical Engineering Journal 219 (2013) 124–130

43. R. Zanganeh, **M. Rezaei**, A. Zamanian, Dry reforming of methane to synthesis gas on NiO-MgO nanocrystalline solid solution catalysts, International Journal of Hydrogen Energy, 38 (2013) 3012 - 3018.

44. **M. Rezaei**, M. Khajenoori, B. Nematolahi, Preparation of noble metal nanocatalysts and their applications in catalytic 3 partial oxidation of methane, Journal of Industrial and Engineering Chemistry 19 (2013) 981-986.

45. H. Naeimi, Kh. Rabiei, **M. Rezaei**, F. Meshkani, Nanocrystalline magnesium oxide as a solid base catalyst promoted one pot synthesis of gem-dichloroaziridine derivatives under thermal conditions, IRAN CHEM SOC (2013) 10:161–167.

46. A. Biabani, **M. Rezaei**, Z. Fattah, Low-Temperature CO oxidation over nanosized Fe-Co mixed oxide catalysts: Effect of calcination temperature and operational conditions, Chemical Engineering Science, 94 (2013) 237-244.

47. R. Zanganeh, **M. Rezaei**, A. Zamanian, H. R. Bozorgzadeh, Preparation of Ni0.1Mg0.9O nanocrystalline powder and its catalytic performance in methane reforming with carbon dioxide, Journal of Industrial and Engineering Chemistry, 19 (2013) 234–239.

48. N. Hadian, **M. Rezaei**, Combination of dry reforming and partial oxidation of methane over Ni catalysts supported on nanocrystalline MgAl2O4, Fuel 113 (2013) 571–579

49. M. Andache, **M. Rezaei**, M. Kazemimoghadam, A nanocrystalline MgO support for Ni catalysts for steam reforming of CH4, Chinese Journal of Catalysis 34 (2013) 1443–1448

50. E. Amini, **M. Rezaei**, M. Sadeghinia, Low temperature CO oxidation over mesoporous CuFe2O4 nanopowders synthesized by a novel sol-gel method, Chinese Journal of Catalysis 34, 2013

51. S. Rahmani, **M. Rezaei**, F. Meshkani, Preparation of Highly active nickel catalysts supported on mesoporous nanocrystalline γ-Al_2O_3 for CO_2 methanation, Journal of Industrial and Engineering Chemistry, 20 (2014) 1352-1346.

52. A. Ranjbar, **M. Rezaei**, Low Temperature Synthesis of Nanocrystalline Calcium Aluminate Compounds with Surfactant-assisted Precipitation Method, Advanced Powder Technology, 25 (2014) 467-471.

53. E. Amini, **M. Rezaei**, M. Sadeghinia, Preparation of MnO_2 nanowires and its application in low temperature CO oxidation, Korean Journal of Chemical Engineering, 30 (2013) 2012-2016.

54. N. Majidian, N. Habibi, **M. Rezaei**, CH4 reforming with CO2 for syngas production over nickel catalysts supported on mesoporous nanostructured γ-Al2O3, Korean Journal of Chemical Engineering, 31 (20140, 1162-1167.

55. M. Zanganeh, **M. Rezaei**, A. Zamaniyan, Preparation of nanocrystalline NiO–MgO solid solution powders as 5 catalyst for methane reforming with carbon dioxide: Effect of preparation conditions, Advanced Powder Technology, 25 (2014) 1111-1117.

56. Z. Fattah, **M. Rezaei**, A. Biabani-Ravandi, Abdullah Irankhah, Preparation of Co-MgO mixed oxide nanocatalysts for low temperature CO oxidation: Optimization of preparation conditions, Process Safety and Environmental Protection, 2014, In Press.

57. N. Habibi, **M. Rezaei**, N. Majidian, M. Andacheh, CH_4 Reforming with CO_2 for Syngas Production over La_2O_3 promoted Ni Catalysts Supported on Mesoporous Nanostructured γ-Al_2O_3, Journal of Energy Chemistry 23(2014)435–442

58. F. Meshkani, **M. Rezaei**, Iron based catalysts prepared via simple and direct pyrolysis method for high temperature water gas shift reaction, Journal of Industrial and Engineering Chemistry, 201 (2014) 3297-3302.

59. M. Khajenoori, **M. Rezaei**, F. Meshkani, Effect of CeO_2 promoter on the activity and coke formation of nickel catalyst supported on nanocrystalline MgO in dry reforming, Chem. Eng. Technol. 2014, 37, No. 6, 957–963.

60. F. Mirzaei, **M. Rezaei**, F. Meshkani, Syngas production via carbon dioxide reforming of methane over Co-MgO mixed oxide nanocatalysts, Journal of Industrial and Engineering Chemistry. 2014, In Press

61. S. Rahmani, **M. Rezaei**, F. Meshkani, Preparation of promoted nickel catalysts supported on mesoporous nanocrystalline gamma alumina for carbon dioxide methanation reaction, Journal of Industrial and Engineering Chemistry 20 (2014) 4176–4182.

62. Z. Alipour, **M. Rezaei**, F. Meshkani, Effect of alkaline earth promoters (MgO, CaO, and BaO) on the activity and coke formation of Ni catalysts supported on nanocrystalline Al2O3 in dry reforming of methane, Journal of Industrial and Engineering Chemistry 20 (2014) 2858–2863

63. F. Meshkani, **M. Rezaei**, M. Andache, Investigation of the catalytic performance of Ni/MgO catalysts in partial oxidation, dry reforming and combined reforming of methane, Journal of Industrial and Engineering Chemistry, 20 (2014) 1251-1260.

64. Z. Alipour, **M. Rezaei**, F. Meshkani, Effect of Ni loadings on the activity and coke formation of MgO-modified Ni/Al_2O_3 nanocatalyst in dry reforming of methane, Journal of Energy Chemistry, 23(2014) 633–638.

65. F. Meshkani, **M. Rezaei**, High Temperature Water Gas Shift Reaction over Promoted Iron Based Catalysts Prepared by Pyrolysis Method, International Journal of Hydrogen Energy, 39 (2014) 16318-16328.

66. B. Nematollahi, **M. Rezaei**, E. Nemati, Synthesis of Nanocrystalline CeO_2 with High Surface Area Using Taguchi Method and Its Application in Methanation Reaction, Chemical Engineering & Technology, 2014, In Press.

67. B. Nematollahi, **M. Rezaei**, M. Asghari, A. Fazeli, E. Nemati, A comparative study between modeling and experimental results over rhodium supported catalyst in dry reforming reaction, Fuel, Fuel 134 (2014) 565–572.

68. Z. Alipour, **M. Rezaei**, F. Meshkani, Effects of support modifiers on the catalytic performance of Ni/Al_2O_3 catalyst in CO_2 reforming of methane, Fuel, 129 (2014) 197-203.

69. F. Meshkani, **M. Rezaei**, Preparation of Nanocrystalline Metal (Cr, Al, Mn, Ce, Ni, Co and Cu) Modified Ferrite Catalysts for the High Temperature Water Gas Shift Reaction, Renewable Energy 74 (2015) 588-598

70. F. Meshkani, **M. Rezaei**, Preparation of mesoporous nanocrystalline iron based catalysts for high temperature water gas shift reaction: Effect of preparation factors, Chemical Engineering Journal, 260 (2015) 107–116.

71. F. Meshkani, **M. Rezaei**, Mesoporous Ba-promoted chromium free Fe_2O_3-Al_2O_3-NiO catalyst with low methanation activity for high temperature water gas shift reaction, Catalysis Communications, Catalysis Communications 58 (2015) 26–29.

72. F. Meshkani, **M. Rezaei**, A Highly Active and Stable Chromium Free Iron Based Catalyst for H2 Purification in High Temperature Water Gas Shift Reaction, International J. of Hydrogen Energy, 39 (2014) 18302-18311.

73. F. Meshkani, **M. Rezaei**, Preparation of Nanocrystalline Fe_2O_3-Cr2O3-CuO Powder by a Modified Urea Hydrolysis Method: A Highly Active and Stable Catalyst for High Temperature Water Gas Shift Reaction, Materials Research Bulletin, 64 (2015) 418-424.

74. F. Meshkani, **M. Rezaei**, The effect of preparation factors on the structural and catalytic properties of mesoporous nanocrystalline iron based catalysts for high temperature water gas shift reaction, The Korean Journal of Chemical Engineering, Accepted, 2014.

75. F. Meshkani, **M. Rezaei**, A facile method for preparation of iron based catalysts for high temperature water gas shift reaction, Journal of Industrial and Engineering Chemistry 20 (2014) 3297–3302.

76. Fereshteh Meshkani, **Mehran Rezaei**, Simplified direct pyrolysis method for preparation of nanocrystalline iron based catalysts for H2 purification via high temperature water gas shift reaction, Chemical Engineering Research and Design, 95 (2015) 288-297.

77. Fereshteh Meshkani, **Mehran Rezaei**, Mohammad Jafarbagloo, Applying Taguchi robust design to the optimization of the synthesis parameters of nanocrystalline Cr-free Fe-Al-Cu catalyst for high temperature water gas shift reaction, Materials Research Bulletin 70 (2015) 229–235.

78. Ehsan Amini, **Mehran Rezaei**, Behzad Nematollahi, SYNTHESIS OF MESOPOROUS MAGNESIUM ALUMINATE (MGAL2O4) NANOPOWDER WITH HIGH SURFACE AREA WITH A NOVEL AND SIMPLE SOL–GEL METHOD, Journal of Porous Materials, (2015) 22:481–485.

79. Behzad Nematollahi, **Mehran Rezaei**, Ebrahim Nemati, Selective Methanation of Carbon Monoxide in Hydrogen Rich Stream over Ni/CeO2 Nanocatalysts, Journal of Rare Earth, 33 (2015) 619.

80. Behzad Nematollahi, **Mehran Rezaei**, Ebrahim Nemati, Preparation of Highly Active and Stable NiO-CeO2 Nanocatalysts for CO Selective Methanation, International Journal of Hydrogen Energy, 40 (2015) 8539 -8547.

81. Fereshteh Meshkani, **Mehran Rezaei**, Preparation of 1 mesoporous nanocrystalline alkali promoted chromium free catalysts (Fe2O3–Al2O3–NiO) for a high temperature water gas shift reaction, RSC Advances, 5 (2015) 9995.

82.Amirali Hosseinzadeh, Behzad Nematollahi, **Mehran Rezaei**, Ebrahim Nemati, Low temperature CO methanation over Ni catalysts supported on high surface area mesoporous nanocrystalline <gamma>-Al2O3 for CO removal in H2-rich stream, International Journal of Hydrogen Energy, 30 (2015) 1809-1818.

83. Fereshteh Meshkani, **Mehran Rezaei**, Preparation of mesoporous chromium promoted magnetite based catalysts for high temperature water gas shift reaction, Industrial & Engineering Chemistry Research, 54 (2015) 1236-1242.

84. Fereshteh Meshkani, **Mehran Rezaei**, Promoted Fe_2O_3-Al_2O_3-CuO Chromium Free Catalysts for High Temperature Water Gas Shift Reaction, Chemical Engineering and Technology, 38 (2015), 1380–1386.

85. Fereshteh Meshkani, **Mehran Rezaei**, Comparison of Preparation Methods of Iron-Based Catalysts for High-Temperature Water-Gas Shift Reaction, Chemical Engineering and Technology, 38 (2015) 1-10.

86. Fatemeh Mohandes; Masoud Salavati-Niasari, **Mehran Rezaei**; Preparation of Mn2O3 nanostructures with different shapes by a simple solid-state method; Journal of Materials Science: Materials in Electronics, 2015, Accepted.

87. Fereshteh Meshkani, **Mehran Rezaei**, High-Temperature Water-Gas Shift Reaction over Nanostructured Cr-Free Fe_2O_3-Al_2O_3-CuO-MO (M: Ba, Ca, Mg and Sr) Catalysts for Hydrogen Production, Journal of Industrial and Engineering Chemistry 30 (2015) 353–358.

88. Ehsan Amini, **Mehran Rezaei**, Preparation of mesoporous Fe-Cu mixed metal oxide nanopowder as a very active and stable catalyst for low temperature CO oxidation, Chinese Journal of Catalysis, 36 (2015) 1711-1718.

89. Nima Bayat, **Mehran Rezaei**, Fereshteh Meshkani, COx-free hydrogen and carbon nanofibers production by methane decomposition over Nickel-Alumina catalysts, Korean Journal of Chemical Engineering, 33(2) (2016), 490-499.

90. M.H. Aboonasr, **M. Rezaei**,F. Meshkani,Preparation of nanocrystalline Ni/Al2O3 catalysts with microemulsion method for dry reforming of methane, The Canadian Journal of Chemical Engineering, 94 (2016), 1177-1183.

91. Soodeh Sepehri, **Mehran Rezaei**, Preparation of Highly Active Nickel Catalysts Supported on Mesoporous Nanocrystalline g-Al2O3 for Methane Autothermal Reforming, Chemical Engineering and Technology, 38 (2015) 1637–1645.

92. Fereshteh Meshkani, **Mehran Rezaei**, High-Temperature Water-Gas Shift Reaction over Nanostructured Cr-Free Fe2O3-Al2O3-CuO-MO (M: Ba, Ca, Mg and Sr) Catalysts for Hydrogen Production, Journal of Industrial and Engineering Chemistry, 30 (2015) 353-358.

93. Ehsan Amini, **Mehran Rezaei**, Preparation of mesoporous Fe-Cu mixed metal oxide nanopowder as a very active and stable catalyst for low temperature CO oxidation, Chinese Journal of Catalysis, 36 (2015) 1711-1718.

94. Fereshteh Meshkani, **Mehran Rezaei** , The effect of preparation factors on the structural and catalytic properties of mesoporous nanocrystalline iron-based catalysts for high temperature water gas shift reaction, Korean J. Chem. Engineering, 32 (2015) 1278-1288.

95. F. Mirzaei, M. Rezaei, F. Meshkani, Z. Fattah, Synthesis, characterization and application of Co-MgO mixed oxides in oxidation of carbon monoxide, Chemical Engineering Communications, 203 (2016) 200–209.

96. M. Rahimi, A. Irankhah, **M. Rezaei**, Performance Research on a Methane Compact Reformer Integrated with Catalytic Combustion , Chemical Engineering and Technology, 37 (2015) 1220-1226.

97. Bahareh Ghods, **Mehran Rezaei**, Fereshteh Meshkani, Synthesis of nanostructured magnesium silicate with high surface area and mesoporous structure, Ceramics International 42(2016) 6883–6890.

98. M.H. Aboonasr, **M. Rezaei**,F. Meshkani, Microemulsion synthesis method for preparation of mesoporous nanocrystalline γ-Al2O3 powders as catalyst carrier for nickel catalyst in dry reforming Reaction, International Journal of Hydrogen Energy, 41(2016) 6353-6361.

99. F. FARSHIDFAR, M. KAZEMZAD, A. KHANLARKHANI, **M. REZAEI**, IONIC LIQUID ASSISTED ACETYLENE PARTIAL HYDROGENATION OVER SURFACE OF PALLADIUM NANOPARTICLES, Surf. Rev. Lett., Accepted, 2016.

100. Nima Bayat, **Mehran Rezaei**, Fereshteh Meshkani,Thermocatalytic decomposition of methane to COx-free hydrogen and carbon over Ni-Fe-Cu/Al2O3 catalysts, International Journal of Hydrogen Energy, 41(2016) 1-11.

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