



RAMIN KARIMZADEH

POSITION DETAILS

Professor in Faculty of Chemical Engineering - Tarbiat Modares University

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Tehran, Iran, Post Box: 14155-4838

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Labratory Tel. No.: +98 21 8288 3967 (Cracking & Catalysis Lab.)

EDUCATION

- *Ph.D. in Chemical Engineering, 2001, Tarbiat Modares University,*
Ph.D. thesis: Olefin Production by Catalytic Steam Cracking of Hydrocarbons.
(Supported by Linde Germany, and executed in Linde R&D division)
- *M.Sc. in Chemical Engineering, 1991, Tarbiat Modares University*
M.Sc. dissertation: Modeling and Simulation of Steam Cracking of Naphtha by
Radical Mechanism.
- *B.Sc. in Chemical Engineering, 1988, Shiraz University*

WORKSHOP TEACHING EXPERIENCES

- Olefin Technologies via Thermal and Catalytic Cracking, a workshop in TU-Berlin, supported by Erasmus+, 2019
- Advanced Reactor Design.
- Computer Aided Process Design.
- Advanced Mathematics.
- Furnace Design.

RESEARCH AREAS

- Olefin Technology
- Thermal and Catalytic Cracking (to produce light olefins and fuels)
- Upgrading and Desulfurization of Liquid Hydrocarbons.

RESEARCH EXPERIENCES

Worked as **executive** in the following projects:

- | | |
|---|--|
| TMU ¹ for NPC-RT ²
2005 – 2007 | Basic design of gas fired and electrical pilot plants for steam cracking furnaces – liquid and gaseous feedstocks. |
| TMU for NPC-RT
2006 – 2008 | Severity control for thermal cracking furnaces based upon the optimization of controllable factors |
| TMU for NPC-RT
2008 – 2009 | Alternative feedstocks for naphtha cracking furnaces. |
| TMU for NIORDC
2008- 2010 | Petroleum residue upgrading to a naphtha fraction suitable for olefin plants. |
| TMU for NPC-RT
2012-2013 | Ethylene and propylene production by steam catalytic cracking of LPG. |
| TMU for NPC-RT
2013-2014 | Separation of asphaltene from pyrolysis fuel oil via a chemical-physical method. |
| TMU for NPC-RT
2012-2013 | Construction and start up a gas fired liquid/gas steam cracking furnace equipped with 108 burners |
| TMU for Morvarid Co.
2015 | Modeling and simulation of Morvarid olefin furnaces. |
| TMU for Morvarid Co.
2015 | Design of sampling system for Morvarid olefin furnaces. |

¹ Tarbiat Modares University

² National Petrochemical Company – Research & Technology

Ramin Karimzadeh

Worked as **senior research assistant** in majority of the following joint projects:

- | | |
|------------------------------------|---|
| TMU <i>for</i> NPC-RT | Basic design of an industrial ethane cracking furnace. |
| TMU <i>for</i> NPC-RT | Package preparation for modeling and simulation of steam cracking furnaces. |
| TMU <i>for</i> NPC-RT | Process design of an olefin unit with gas and liquid feedstock. |
| TMU <i>for</i> TPC ³ | Influence of C4 cut recycle on the products and run length of steam cracking furnaces. |
| NPC-RT <i>for</i> MPC ⁴ | Replacing the DMDS ⁵ by H ₂ S as a steam cracking coke inhibitor for Marun olefin unit. |

INDUSTRIAL EXPERIENCES

Worked as **consultant** in the following industrial companies:

- Linde R&D division.
- Abadan olefin plant
- Amir Kabir olefin plant
- Arak olefin plant
- National Petrochemical Company Research and Technology (NPC-RT)
- Morvarid olefin plant

HONORS

Tarbiat Modares University,
2002

Premier researcher.

Tarbiat Modares University,
2007

Safety considerations in Cracking and Catalyst Lab.

Tarbiat Modares University,
2008

Premier researcher.

³ Tabriz Petrochemical Company

⁴ Marun Petrochemical Company

⁵ Dimethyl Disulfide

JORNAL REVIEW

Applied Catalysis A

Catalysis Letters

Chemical Engineering Communications

Chemical Engineering Research and Design

Chemical Engineering Technology

Chemistry Chemical Eng J

Fuel Processing Technology

Industrial & Engineering Chemistry Research

International Journal for Numerical Methods in Fluids

International Journal of Hydrogen Energy

J of Chemical Engineering Data

J of Industrial Engineering Chemistry Research

Journal of Molecular Catalysis A

PUBLICATIONS

Patents:

1. Method of hydrocarbon upgrading: Cyclical furnace for catalytic or thermal upgrading of light, heavy and waste hydrocarbons. US Patent and Iranian Patent
2. Synthesis of Zeolite Nano-reactor with hierarchical configuration and heterogeneous characterization for producing light olefins. Iranian Patent
3. Synthesis of Zeolite Micro-reactor from rice husk with ultrasound assisted to produce light olefins. Iranian Patent
4. Synthesis of mesopore activated carbon from date core. Iranian Patent
5. Modification of activated fiber carbon by NiO and CuO₂. Iranian Patent

Journals:

1. J. Towfighi, A. Niaei, R. Karimzadeh, "Development of Kinetic model of Thermal Cracking of Naphtha", *Iranian J. of Chem. and Chem. Eng.*, 1373, 13(1), 68-75(Language in Persian).
2. J. Towfighi, G. Saedi, R. Mihail, R. Karimzadeh, "Modeling and Simulation of Propane Pyrolysis Furnace With Molecular Kinetics & Coke Formation", *Iranian Journal of Science & Technology*, **1994**, Vol. 18, p. 3.
3. M. Sadrameli, A. Haghghi Asl, R. Karimzadeh, "Three Dimentional Tube Skin Temperature Results in the Thermal Cracking Coils", *International J. of Engineering Science*, **1997**, 8(2.a), p. 67.
4. J. Towfighi, M. Karimaei, R. Karimzadeh, "Application of Dynamic Programming Method in Optimal Control of Light Hydrocarbons pyrolysis Reactors", *Scientia Iranica*, **1998**, Vol.3-5, pp. 148-155.
5. J. Towfighi, S. Z. Mirnezami, R. Karimzadeh, "Design and Modeling of Stirred Tank Bioreactors for Production of S.C.P. From Methanol", *International J. of Eng. Science*, **1378**, 10(4), pp. 117-139 (Language in Persian)
6. J. Towfighi, R. Karimzadeh, A. Niaei, G. Saedi, S. Hoseini, Modeling and Simulation of the Pyrolysis Reactions and Coke Deposition in Industrial Ethane Cracker, *J. of Modarres*, **2002**, Vol. 10, pp. 82-90
7. J. Towfighi, H. Zimmermann, R. Karimzadeh, M. M. Akbarnejad, Steam Cracking of Naphtha in Packed Bed Reactors. *Ind. Eng. Chem. Res.* **2002**, 41, 1419-1424
8. Niaei, J. Towfighi, S. M. Sadrameli, R. Karimzadeh, The combined simulation of heat transfer and pyrolysis reactions in industrial cracking furnaces, *Applied Thermal Engineering*, 24 (**2004**) 2251-2265
9. J. Towfighi, R. Karimzadeh, M. Sadrameli, A. Niaei, G. Saedi, S. Hoseini, M. Mofarahi, B. Mokhtarani, SHAHAB-A PC-Based Software of steam cracking furnaces(Ethane and Naphtha), *Iranian Journal of Chemical Engineering*, **2004**, 1(2), pp. 55-69.

10. J. Towfighi, A. Niaei, R. Karimzadeh, G. Saedi "Systematics and modelling Representations of LPG Thermal cracking for Olefin production", *Korean J. Chem. Eng.*, 23(1), 8-16 **(2006)**
11. M. Pakizeh, M.M. Omidkhah, R. Karimzadeh, A. Zarringhalam, Study of catalytic effect, growth time and effective surface materials on the Silica-Polymer Catalyst, *Science Technology of Polymer*, **2006**, 20, 2, pp. 147-153(Persian)
12. M. V. Kolaei, R. Karimzadeh, S. A. Shojaosadati, J. Towfighi, Modeling of single cell protein production from cheese whey using tanks-in-series model, *Iranian Journal of Biotechnology*, Vol. 5, No. 2, April **2007**.
13. M. Ghashghaee, R. Karimzadeh, Dynamic Modeling and Simulation of Steam Cracking Furnaces. *Chem. Eng. Technology*, **2007**, 30, No. 7, 835-843.
14. R. Karimzadeh, A. Hematian, M. R. Omidkhah, The Effect of Coil Configuration on Run Length of Thermal Cracking Reactors, *International Journal of Chemical Reactor Engineering*, Volume 5, **2007**, The Berkeley Electronic Press.
15. R. Karimzadeh, M. Ghashghaee, Design of a Flexible Pilot Plant Reactor for The Steam Cracking Process. *Chem. Eng. Technology*, **2008**, No. 2, 1-10
16. Ghavam Rahmani, Ramin Karimzadeh, Jafar Towfighi, Meysam Hoseinnia, Development of Coke formation Kinetics in Steam Cracking of Gas Oil. *Amir Kabir J.*, **2008**, 69, pp. 49-57,(Persian).
17. Mohamadalizadeh, J. Towfighi, R. Karimzadeh, Modeling of catalytic coke formation in thermal cracking reactors., *J. Anal. Appl. Pyrolysis*, 82, **2008**, 134-139
18. S. Z. Abghari, J. Towfighi., R. Karimzadeh, M. R. Omidkhah, Determination of yield distribution in olefin production by thermal cracking of atmospheric gasoil". *Korean J. Chem. Eng.*, 25(4), **2008**, 681-692
19. B. Mokhtarani, R. Karimzadeh, M. H. Amini, S. Darvish Manesh, Partitioning of Ciprofloxacin in aqueous two-phase system of poly(ethylene glycol) and sodium sulphate, *Biochemical Engineering Journal* 38, **2008**, 241-247
20. S. Z. Abghari, J. Towfighi, R. Karimzadeh, M. M. Omidkhah, Application of response surface methodology in study of the Product Yield Distribution of thermal cracking of atmospheric gasoil, *Scientia Iranica*, **2008**, Vol. 15, No. 4, pp 457-468

21. A. Mirolieaei, F. Shahraki, R. Karimzadeh, Investigation on Fluid flow in Transfer Line Exchanger of Thermal Cracking Furnaces, Iranian Chemical Engineering Journal, 8(41), 2009, 3-13(Persian)
22. Mokhtari-Hosseini Zahra, Vasheghani-Farahani Ebrahim Shojaosadati S. Abbas, Karimzadeh Ramin, Media Selection for Poly(hydroxybutyrate) Production from methanol by Methylobacterium Exorquens DSMZ 1340, *Iran. J. Chem. Chem. Eng.* 28 (3), **2009**, 45–52
23. Zahra B. Mokhtari-Hosseini , Ebrahim Vasheghani-Farahani, Ali Heidarzadeh-Vazifekhoran, S. Abbas Shojaosadati, Ramin Karimzadeh, Kianoush Khosravi Darani, Statistical media optimization for growth and PHB production from Methanol by a methylotrophic bacterium, *Bioresource Technology* 100, **2009**, 2436–2443
24. Zahra Beagom Mokhtari-Hosseini, Ebrahim Vasheghani-Farahani, Seyed Abbas Shojaosadati, Ramin Karimzadeh, Effect of feed composition on PHB production from methanol by HCDC of Methylobacterium extorquens (DSMZ 1340) *J. Chem Technol Biothechnol* 2009; 84: 1136-1139
25. Ramin Karimzadeh, Hamid Reza Godini, Mohammad Ghashghaee, Flowsheeting of steam cracking furnaces, *Chemical engineering research and design*, 87, **2009**, 36–46
26. B. Asgharpour, R. Karimzadeh, M.R. Omidkhah, Performance of data reconciliation on olefin reactor parameters using least square, Cauchy and M-estimator, *Chemistry and Chemical Engineering J.* 27(3), 1378, 41-60 (Language in Persian)
27. Ramin Karimzadeh, Mohammad Ghashghaee and Mohsen Nouri, Effect of Solvent Dearomatization and Operating Conditions in Steam Pyrolysis of a Heavy Feedstock, *Energy & Fuels* **2010**, 24, 1899–1907
28. Maryam Borghei , Ramin Karimzadeh , Alimorad Rashidi , Nosrat Izadi , Kinetics of methane decomposition to CO_x-free hydrogen and carbon nanofiber over Ni-Cu/MgO catalyst, *International journal of hydrogen energy* 35, **2010**,9479-9488
29. H. R. Godini, H. Arellano-Garcia, M. Omidkhah, R. Karimzadeh, and G. Wozny Model-Based Analysis of Reactor Feeding Policies for Methane Oxidative Coupling, *Ind. Eng. Chem. Res.* **2010**, 49, 3544–3552

30. Mohammad Ghashghaee, Ramin Karimzadeh, Evolutionary model for computation of pore-size distribution in microporous solids of cylindrical pore structure, *Microporous and Mesoporous Materials* 138, **2011**, 22–31
31. Mohammad Ghashghaee, Ramin Karimzadeh, Multivariable optimization of thermal cracking severity, *Chem. Eng. Res. Des.* 89 (**2011**) 1067–1077
32. Nazi Rahimi, Ramin Karimzadeh, Catalytic cracking of hydrocarbons over Modified ZSM-5 Zeolites to produce light olefins: a review, *Applied Catalysis A: General* 398 (**2011**) 1–17
33. Reza Asgharzadeh Shishavan, Mohammad Ghashghaee, Ramin Karimzadeh, Investigation of kinetics and cracked oil structural changes in thermal cracking of Iranian vacuum residues, *Fuel Processing Technology* , 92 (**2011**) 2226–2234
34. Seyed Mahdi Jazayeri, Ramin Karimzadeh, Experimental Investigation of Initial Coke Formation over Stainless Steel, Chromium, and Iron in Thermal Cracking of Ethane with Hydrogen Sulfide as an Additive, *Energy & Fuels*, **25** (**2011**), 4235-4247
35. Nosrat Izadia; Alimorad Rashidia; Maryam Borgheib; Ramin Karimzadehb; Atefe Tofigha, Synthesis of carbon nanofibres over nanoporous Ni-MgO catalyst: influence of the bimetallic Ni-(Cu, Co, Mo) MgO catalysts, *Journal of Experimental Nanoscience*, Vol. 7, No. 2, March–April 2012, 160-173
36. Elham S. Moosavi, Seyed A. Dastgheib, Ramin Karimzadeh, Adsorption of Thiophenic Compounds from Model Diesel Fuel Using Copper and Nickel Impregnated Activated Carbons, *Energies*; 5, 2012, 4233-4250
37. Ali Reza Miroliaei, Farhad Shahraki , Hossein Atashi, Ramin Karimzadeh, Comparison of CFD results and experimental data in a fixed bed Fischer–Tropsch synthesis reactor, *Journal of Industrial and Engineering Chemistry* 18 (2012) 1912–1920
38. S. Abbasi Aliabadi, R. Karimzadeh, M. Ghashghaee, R. Asgharzadeh, The effect of operation conditions and feedstock on sulfur content of liquid product of thermal cracking of vacuum residue and kinetic modeling of sulfur compounds reactions, *Pajoohesh Naft*, 22(70) 1391, 3-21 (language in Persian)
39. Mohammad Ghashghaee, Ramin Karimzadeh, Applicability of protolytic mechanism to steady-state heterogeneous dehydrogenation of ethane revisited, *Microporous and Mesoporous Materials* 170 (2013) 318–330

40. Abbas Mohammadi, Mohammdreza Omidkhah, Ramin Karimzadeh, Ali Haghtalab, Structural modeling of petroleum fractions based on mixture viscosity and Watson K factor *Korean J. Chem. Eng.* 30(2), (2013) 465-473
41. Nazi Rahimi, Ramin Karimzadeh, A Mathematical Procedure for Deriving Overall Rate Equations Based on the Theory of Complex Reactions: Application to Analysis of Catalytic Cracking of n-Butane over Zeolites, *Chemical Engineering Science* 93 (2013) 326-340
42. Moein Jafari Fesharaki, Mohammad Ghashghaee, Ramin Karimzadeh, Comparison of four nanoporous catalysts in thermocatalytic upgrading of vacuum residue *J. Anal. Appl. Pyrolysis* 102(2013) 97-102
43. Kafi Nazanin, Haghghi Asl Ali, Karimzadeh Ramin, Modeling of catalytic coke formation rate in thermal cracking of ethane with H₂S, *Iranian Chemical Engineering Journal* 11, 64 (2013) 75-84 (Persian Language)
44. Meysam Hajheidari, Mohammad Ghashghaee, Ramin Karimzadeh, Olefins production from LPG via dehydrogenative cracking over three ZSM-5 catalysts, *Journal of Scientific & Industrial Research*, 72, December(2013), 760-766
45. Nazi Rahimi, Ramin Karimzadeh, Seyed Mahdi Jazayeri, Kamran Danaie Nia, An empirical investigation of the influence of sulfur additives on the catalytic rate of coke deposition and CO formation in the steam cracking of LPG over Incoloy 600 and stainless steel, *Chemical Engineering Journal*, 238 (2014) 210-218
46. S. M. Jazayeri, R Karimzadeh, A Surface Kinetic Model for Coke Deposition Over Stainless Steel, Chromium, and Iron During Ethane Pyrolysis, *Petroleum Science and Technology*, 32(7)(2014), 821-829
47. Elham S. Moosavi, Ramin Karimzadeh, Seyed Abbas Ahmadi, 4,6-Dimethylbenzothiophene adsorption by activated carbon fiber, *International Journal of Chemical and Environmental Engineering*, April 2004, Volume 5, No.2, pp. 76-78
48. Sajad Bahramian, Ramin Karimzadeh, Olefin Unit Modeling by Shortcut Equations, (Persian Language), *Iranian Chemical Engineering Journal*, 13(76) 2015, 23-32
49. Elham S. Moosavi, Nader Rezaei and Ramin Karimzadeh, Numerical Computer Algorithm for Pore Size Distribution Analysis of Activated Carbons Based on

Local Density Functional Theory, THE CANADIAN JOURNAL OF CHEMICAL ENGINEERING, Vol. 92, October 2014, 1739-1748

50. *Nazi Rahimi, Ramin Karimzadeh, Journal of Analytical and Applied Pyrolysis, Kinetic modeling of catalytic cracking of C4 alkanes over La/HZSM-5 catalysts in light olefin production, 115(2015) 242-254*
51. *Bijan Barghi, Ramin Karimzadeh, Kinetic modeling based on complex reaction theory for n-butane catalytic cracking over HZSM-5 Reac Kinet Mech Cat (2015) 116:507–522*
52. *Leyla Vafi, Ramin Karimzadeh, Effect of phosphorus on methane production in LPG catalytic cracking over modified-structure ZSM-5, Journal of Natural Gas Science and Engineering 27 (2015) 751 -756*
53. *Elham Sadat Moosavi, Ramin Karimzadeh, Adsorption of Thiophenic Compounds by OFG-Tailored Fiber and Activated Carbons, Separation Science and Technology, 50: 1940–1951, 2015*
54. *Anovel method for enhancing the stability of ZSM-5 zeolites used for catalytic cracking of LPG: Catalyst modification by dealumination and subsequent silicon loading, Chinese Journal of Catalysis, 37(2016),628–635*
55. *Leyla Vafi, Ramin Karimzadeh, LPG catalytic cracking over the modified ZSM-5 by activated carbon and carbon nanotube templates: Synthesis, morphology and performance of catalysts, Journal of Natural Gas Science and Engineering 32 (2016) 1-9*
56. *N. Rahimi, D. Moradi, M. Sheibak, E. Moosavi, R. Karimzadeh The influence of modification methods on the catalytic cracking of LPG, over lanthanum and phosphorus modified HZSM-5 catalysts, Microporous and Mesoporous Materials 234 (2016) 215-223*
57. *Masoume Rostami, Masoud Mofarahi, Ramin Karimzadeh, Davoud Abedi, Preparation and Characterization of Activated Carbon –Zeolite Composite for Gas Adsorption Separation of CO₂/N₂ System, Chemical Engineering Data, 7(61) 2016, 2638-2646*
58. *Bijan Barghi, Ramin Karimzadeh, Modeling of ZnZSM-5 deactivation during liquefied petroleum gas catalytic cracking in the presence of steam, Reac Kinet Mech Cat, 2016,120:753-773*
59. *Reza Khoshbin, Ramin Karimzadeh, The beneficial use of ultrasound in free template synthesis of nanostructured ZSM-5 zeolite from rice husk ash used in catalytic cracking of light naphtha: Effect of irradiation power, Advanced Powder Technology, 28 (2017) 973–982*

60. Reza Khoshbin, Ramin Karimzadeh, Synthesis of mesoporous ZSM-5 from rice husk ash with ultrasound assisted alkali-treatment method used in catalytic cracking of light naphtha, *Advanced Powder Technology*, 28 (2017) 1888–1897
61. Reza Khoshbin, Ramin Karimzadeh, Thermodynamic Analysis of Thermal Cracking of Ethane for Light Olefins Production, *J. of fuel and combustion*, No. 2,1394, 59-69 (Persian language)
62. Roya Pouria, Leyla Vafi, Ramin Karimzadeh, Propane catalytic cracking on pretreated La-ZSM-5 zeolite during calcination for light olefins production, *JOURNAL OF RARE EARTHS*, Vol. 35, No. 6, Jun. 2017, 542-550
63. Sareh Asadi, Leyla Vafi, Ramin Karimzadeh, Catalytic cracking of propane over impregnated mesoporous ZSM-5: A strategy to change product distribution by sequential modification, *Microporous and Mesoporous Materials* 255 (2018) 253-260
64. Shima oruji, Reza Khoshbin and Ramin Karimzadeh, Thermodynamic Modeling of Gasoline Production Process through Thermal Cracking of Heavy Hydrocarbons, *J. of fuel and combustion*, No. 1,1396, 75-85 (Persian language)
65. Ravandi Reza, Khoshbin Reza, Karimzadeh Ramin, Synthesis of free template ZSM-5 catalyst from rice husk ash and co-modified with lanthanum and phosphorous for catalytic cracking of naphtha, *Journal of Porous Matreial* Porous Mater (2018) 25:451–461
66. Alamdari Amin, Karimzadeh Ramin, Faradaic number as a criterion for the promotion effect of external electric field on heterogeneous oxidative cracking of liquefied petroleum gas on ZSM-5 supported catalyst, *Reaction Kinetics, Mechanisms and Catalysis* (2018) 123:723–742
67. Alamdari Amin, Karimzadeh Ramin, Statistical optimization using central composite design for the oxidative dehydrogenation process of LPG fuel on Fe/HZSM-5 in the presence of external electric field, *J. of fuel and combustion*, No. 2,1396, 93-112 (Persian language)
68. Abbasizadeh Saeed, Karimzadeh Ramin, Effects of cobalt in activity reduction of close aluminums in the HZSM-5 framework and its role in enhancing light olefins production in Catalytic cracking of LPG fuel *J. of fuel and combustion*, No. 2,1396, 41-52 (Persian language)

69. Moradi Milad, Karimzadeh Ramin, Moosavi Elham Sadat, Modified and ion exchanged clinoptilolite for the adsorptive removal of sulfur compounds in a model fuel: New adsorbents for desulfurization, *Fuel* 217 (2018) 467–477
70. Mitra Akhtari Zavareh^a, Ahmed Aly Daa Mohammed Sarhan, Ramin Karimzadeh, Ramesh Singh Al/ Kuldip Singh, Analysis of corrosion protection behavior of Al₂O₃-TiO₂ oxide ceramic coating on carbon steel pipes for petroleum industry. *Ceramics International* 44 (2018) 5967–5975
71. Saeed Abbasizadeh, Ramin Karimzadeh, Effect of framework single and close (pairs and un-pairs) aluminum atoms on phosphorous modification of HZSM-5 in cracking of liquefied petroleum gas to ethylene and propylene, *Microporous and Mesoporous Materials* 266 (2018) 132–140
72. Mitra Akhtari Zavareh, Ehsan Doustmohamadi, Ahmed Sarhan, Ramin Karimzadeh, Pooria Moozarm Nia, Ramesh Singh Al/Kulpid Singh, Comparative study on the corrosion and wear behavior of plasma-sprayed vs. high velocity oxygen fuel-sprayed Al₈Si₂₀BN ceramic coatings, *Ceramics International* 44 (2018) 12180–12193
73. Shima Oruji, Reza Khoshbin, Ramin Karimzadeh, Preparation of hierarchical structure of Y zeolite with ultrasonic-assisted alkaline treatment method used in catalytic cracking of middle distillate cut: The effect of irradiation time. *Fuel Processing Technology* 176 (2018) 283–295.
74. Abedi Mohammad Ali, Karimzadeh Ramin, Abbasizadeh Saeed, Desulfurizing a model fuel using γ -Al₂O₃ and Ni/ γ -Al₂O₃ adsorbents and determining their corresponding isotherms, *Fuel and Combustion*, No. 3,1396, 51-64 (Persian language)
75. E. S. Moosavi, M. Gharibi, R. Karimzadeh, B. Asbaghi, S.S Shahabi, S. Alizad, M. Zare, Deasphalting of Olefin Pyrolysis Fuel Oil by Combination of Chemical–Physical Methods, *Journal of Chemical and Petroleum Engineering*, 52 (1), June 2018 pp. 23-33
76. Reza Khoshbin, Ramin Karimzadeh, Thermodynamic Analysis of Light olefins production via cracking of n-hexane using Gibbs Energy Minimization Approach and Analysis of Overall Reactions. *Journal of Oil, Gas and Petrochemical Technology* Vol. 4, No. 1, pp. 18-39
77. Abbasizadeh Saeed, Karimzadeh Ramin, Effect of Next-Nearest-Neighbor Aluminum Atoms in the HZSM-5 Framework Synthesized with Various Aluminum Sources on Liquefied Petroleum Gas Transformation to Light Olefins. *Ind. Eng. Chem. Res* 2018, 57 (23), 7783–7794
78. Khoshbin Reza, Oruji Shima, Karimzadeh Ramin, Catalytic cracking of light naphtha over hierarchical ZSM-5 using rice husk ash as silica source in presence of ultrasound energy: effect of carbon nanotube content *Advanced Powder Technology*, 29 (2018) 2176-2187

79. Abbasizadeh Saeed, Karimzadeh Ramin, Influence of various aluminium distributions on modification of ZSM-5 zeolite framework with cobalt ions in alkane catalytic cracking, *Research on Chemical Intermediate*, (2019) 45955–972
80. Monireh Sadat Hosseini Hashemi, Fatemeh Eslami, Ramin Karimzadeh, Organic contaminants removal from industrial wastewater by CTAB treated synthetic zeolite Y, *Journal of Environmental Management*, 233 (2019) 785–792
81. Shima Oruji, Reza Khoshbin, Ramin Karimzadeh, Combination of precipitation and ultrasound irradiation methods for preparation of lanthanum-modified Y zeolite nanocatalysts used in catalytic cracking of bulky hydrocarbons. *Materials Chemistry and Physics* , 230(2019) 131-144
82. Somaye Honarmand, Ramin Karimzadeh, Elham S Moosavi , Synthesis of Zeolite Y from Kaolin and its Model Fuel Desulfurization performance: Optimized by Box-Behnken Method, *Iranian Journal of Chemistry and Chemical Engineering*, Available Online from 15 October 2018
83. Amirhossein Ghorbani, Ramin Karimzadeh, Masoud Mofarahi, Mathematical modeling of Fixed Bed Adsorption: Influence of Main Parameters on break through curve , *Journal of Chemical and Petroleum Engineering*, In Press
84. Ramin Karimzadeh, Sajad Moradi, Elham S Moosavi Stability Determination of the Modified Activated Carbon to Adsorb Thiophenic Compounds from Model Diesel Fuel *Iranian Journal of Chemistry and Chemical Engineering*, Available Online from 17 October 2018
85. Abbasizadeh Saeed, Karimzadeh Ramin, Effects of Phosphorus on modification of HZSM-5 zeolite synthesized with different framework aluminum distribution in catalytic transformation of LPG to light olefins, *Fuel and Combustion*, No. 4,1397, 101-116 (Persian language)
86. Amin Alamdari, Ramin Karimzadeh, Oxidative Dehydrogenation of Liquefied Petroleum Gas on Copper, Zinc and Iron Oxide Impregnated on MFI Zeolite Assisted by Electric Power, *Catalysts*, 2018, 8, 270, 1-26
87. Mitra Ebrahiminejad, Ramin Karimzadeh, Hydrocracking and Hydrodesulfurization of diesel over zeolite beta-containing NiMo supported on activated red mud. *Advanced Powder Technology*, Available online.
88. Amin Alamdari, Ramin Karimzadeh, Saeed Ababsizadeh, Present state of art and outlooks of oxidative dehydrogenation of ethane: catalysts and mechanisms, *Reviews in Chemical Engineering*, In Press.

89. Amin Alamdari, Ramin Karimzadeh, Relating catalytic activity of CrHZSM-5 in oxidative dehydrogenation of liquefied petroleum gas under an external DC electric field to electrical properties, Material Research Express, 2019, In Press
90. Mitra Ebrahiminejad, Ramin Karimzadeh, Synthesize of Zironia-Promoted NiMo Nanocatalyst supported on Red Mud via Impregnation Method Used in Hydrodesulfurization of Oil Cuts, Fuel and Combustion, No. X,XXXX, XX-XX (Persian language)
91. Mitra Ebrahiminejad, Ramin Karimzadeh, , Investigation of the Effect of Boron Promoter on Structural Properties of NiMo Nanocatalyst supported on Red Mud synthesized by Impregnation Method for Hydrocracking and Hydrodesulfurization of Oil Cuts, Fuel and Combustion, No. X,XXXX, XX-XX (Persian language)

Proceedings:

1. J. Towfighi, R. Karimzadeh, "Development of a Mechanistic Model for Pyrolysis of Naphta", APCCHE / CHEMECA, 93, 1993, Melbourne, Australia
2. J. Towfighi, H. Nazari, R. Karimzadeh, "Simulation of Light Hydrocarbons Pyrolysis Using RadicalMechanism", APCCHE / CHEMECA 93, , 1993, Melbourne, Australia
3. M.M. Akbarnejad, Towfighi J., Sharifi H., R. Karimzadeh , "Design and Build up a FCC pilot and Simulation of FCC Unit of Abadan Refinery ", 8th Congress of Oil, Gas and Petrochemical, 1997, Theran,
4. J. Towfighi, S. Kavakebi, R. Karimzadeh, "Optimal Control of Thermal Cracking Reactors", 2nd NationalCongress of Chemical Engineering, 1997, Theran,
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