



RAMIN KARIMZADEH

POSITION DETAILS

Professor in Faculty of Chemical Engineering - Tarbiat Modares University

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Tehran, Iran, Post Box: 14155-4838

Work Office Tel. No.: +98 21 8288 3315

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 AND 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.

INDUSTRIAL PROJECTS

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

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| TMU [†] for NPC-RT [‡]
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 startup a gas fired liquid/gas steam cracking furnace equipped with γ · α 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. |
| For Nouri Co.
2018 | <i>Upgrading of byproducts of Nouri Petrochemical to produce light olefins.</i> |

[†] Tarbiat Modares University

[‡] National Petrochemical Company – Research & Technology

Ramin Karimzadeh

For Morvarid Co. 2019 *Injection of DSO in olefin cracking furnaces as an alternative of DMDS. (Starting October 2019)*

For Bushehr Co. 2020 *Simulation of thermal cracking of C₂, C₂₊, LPG in Olefin furnaces of Bushehr Co.*

For INSF 2025 *Development of silica-based adsorbent technology used in separation columns by chromatography method*

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

TMU *for* NPC-RT Basic design of an industrial ethane cracking furnace.

TMU *for* NPC-RT Package preparation for modeling and simulation of steam cracking furnaces.

TMU *for* NPC-RT Process design of an olefin unit with gas and liquid feedstock.

TMU *for* TPC[†] Influence of C₄ cut recycle on the products and run length of steam cracking furnaces.

NPC-RT *for* MPC[‡] Replacing the DMDS by H₂S 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
- Joint venture with PSE Engineering GmbH in doing olefin Projects in Iran

[†] Tabriz Petrochemical Company

[‡] Marun Petrochemical Company

PATENTS

۱. Method of hydrocarbon upgrading: Cyclical furnace for catalytic or thermal upgrading of light, heavy and waste hydrocarbons. US Patent and Iranian Patent
۲. Synthesis of Zeolite Nano-reactor with hierarchical configuration and heterogeneous characterization for producing light olefins. Iranian Patent
۳. Synthesis of Zeolite Micro-reactor from rice husk with ultrasound assisted to produce light olefins. Iranian Patent
۴. Synthesis of mesopore activated carbon from date core. Iranian Patent
۵. Modification of activated fiber carbon by NiO and CuO. Iranian Patent
۶. Synthesis of Phosphorus-Modified NiW Nanocatalyst Supported on Red Mud Waste Used in Hydrodesulphurization Process of Oil Cuts. Iranian Patent

HONORS

Tarbiat Modares University,
۲۰۰۲

Premier researcher.

Tarbiat Modares University,
۲۰۰۷

Safety considerations in Cracking and Catalyst Lab.

Tarbiat Modares University,
۲۰۰۸

Premier researcher.

Tarbiat Modare University
۲۰۲۳

استاد نمونه دانشگاه

JORNAL REVIEW

Applied Catalysis A

Catalysis Letters

Chemical Engineering Communications

Chemical Engineering Research and Design

Ramin Karimzadeh

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

Journals:

۱۴۶. Tara Ghaffarinejad & Ramin Karimzadeh, Green biodiesel production through enhanced adsorption using bifunctional ethoxy amine modified silica catalysts, Scientific Reports, <https://doi.org/10.1038/s41598-026-41400-x>

۱۴۵. Maryam Soleymani, Ramin Karimzadeh, Alimorad Rashidi, Mass Transfer During Impregnation Controls Metal Accessibility and Performance in Granular Fe-Mo HDS Catalysts, Scientific Reports Scientific Reports volume 16, Article number: 18212 (2026)

۱۴۴. Faezeh Mosalmanzadeh, Tara Ghaffarinejad, Ramin Karimzadeh, Sustainable Biodiesel Production from Edible Oil through Transesterification with Waste Iron-Based α -Fe₂O₃/SiO₂ Heterogeneous Catalyst: Performance and Reusability Studies, Journal of Oil, Gas and Petrochemical Technology ۱۲(۲): ۸۱-۹۶, Summer and Autumn ۲۰۲۰

۱۴۳. Mohammadreza Salehi, M. Mohseni, Ramin Karimzadeh, Acid Activation of Natural Bentonite for Enhanced Tribological and Thermal Performance in Non-soap Grease Formulations, Journal of Applied Research of Chemical-Polymer Engineering, ۹(۲), ۲۰۲۰, ۵۷-۶۳

۱۴۲. Tara Ghaffarinejad, Ramin Karimzadeh, "Optimization of Silica Synthesis via Stober Method: Effects of CTAC, Temperature, and Reaction Time on Spherical Particle Size," *Journal of Oil, Gas and Petrochemical Technology*, ۲۰۲۰, ۱۲(۱): ۱۸-۳۱.

۱۴۱. Zahra Javadi, Mohammad Mirzadeh, Fatemeh Eslami, Ramin Karimzadeh, *Determination of optimum demulsifier for water separation from Mazut emulsion using hydrophilic-lipophilic deviation*

(HLD) concept, Journal of Fuel and Combustion (Persian), Vol. ۱۸, No. ۲, Summer ۲۰۲۴, pp. ۲۱-۴۶.

۱۴۰. Parya Torkaman, Ramin Karimzadeh, Arezou Jafari, *Influence of heavy oil components and optimal magnetic nanocatalysts on the heavy oil upgrading by microwave-assisted*, Results in Engineering, ۲۰۲۵.

۱۳۹. Mohammad Bahrami Gargari, Ramin Karimzadeh, *Effectiveness of Sol-Gel Organically Modified Silica Xerogel as a Barrier Coating for Corrosion Protection*, Journal of Oil, Gas and Petrochemical Technology, ۲۰۲۵; ۱۱(۱): ۳۲-۴۲.

۱۳۸. Laya Bayat, Ramin Karimzadeh, *Thermal and Rheological Characteristics of Lithium and Calcium Complex Greases*, Journal of Oil, Gas and Petrochemical Technology, ۲۰۲۴; ۱(۱): ۱۲-۱۸.

۱۳۷. محمد ارغوانی فر، رامین کریم زاده، تاثیر دما و فشار بر تولید کک نفتی از ته ماند پالایشگاهی، نشریه سوخت و ۱۳۷، ۲۵ - احتراق، سال هفدهم، شماره چهارم، زمستان ۱۴۰۳، ۱۵

۱۳۶. Mina Saghaee, Elham Sadat Moosavi, Ramin Karimzadeh, *Development of multifunctional EDTA@Fe(NO₃)₃/ACC from viscose rayon for textile industry wastewater treatment*, Journal of Environmental Chemical Engineering, ۲۰۲۵, ۱۳

135. Pooneh Abachi, Reza Khoshbin, Ramin Karimzadeh, *Synthesis of orange colored silica gel based on rice husk ash by using iron salt indicator*, Journal of Chemical and Petroleum Engineering (JChPE), ۲۰۲۴, ۵۸(۲), ۳۴۷-۳۵۷.

۱۳۴. Parya Torkaman, Ramin Karimzadeh, Arezou Jafari, *Experimental Investigation of Fe₃O₄ and Activated Carbon Effect on the Heavy Oil Upgrading Process by Electromagnetic Heating*, Applied research in chemical-polymer engineering, Vol ۱ No ۱ Spring ۲۰۲۳, ۳-۱۵
۱۳۳. صدف جلیلیان، رامین کریم زاده، اصلاح کربن فعال تجاری جهت گوگردزدایی جذبی دی بنزوتیوفن از سوخت مدل نشریه علمی پژوهشی سوخت و احتراق، سال شانزدهم، شماره سوم تابستان ۱۴۰۲، ۷۷-۸۴

۱۳۲. Faezeh Mirshafiee, Ramin Karimzadeh, *Intelligent Catalyst Shaping: Effect of Binders on the Physicochemical and Catalytic Properties of Zeolite-Based Catalysts*, Journal of Chemical and Petroleum Engineering (JChPE), ۲۰۲۴, ۵۸(۱): ۱۳۱-۱۴۷

۱۳۱. محمد نجفی درچه، رامین کریم زاده، بررسی اثر دما در بازیافت اجزاء فیلتر روغن به روش پیرولیز، نشریه علمی ۱۳۱، ۳۱-۲۵۲، ۱۴۰۲ پژوهشی سوخت و احتراق، سال شانزدهم، شماره دوم تابستان

۱۳۰. Parya Torkaman, Ramin Karimzadeh, Arezou Jafari, *Synthesis of Fe₃O₄-Mn₂O₃ and Fe₃O₄-graphene oxide hybrid nanocatalyst and their effects on the electromagnetic properties and their performance on heavy hydrocarbons upgrading*, Journal of Analytical and Applied Pyrolysis 179(2024) 106467, <https://doi.org/10.1016/j.jaap.2024.106467>

۱۲۹. Faezeh Mirshafiee, Ramin Karimzadeh, *Intelligent Catalyst Shaping: Effect of Binders on the Physicochemical and Catalytic Properties of Zeolite-Based Catalysts*, Journal of Chemical and Petroleum Engineering, Article in Press <https://doi.org/10.22059/JCHPE.2024.358976.1434>

۱۲۸. عباس محمدی ، ممدرضا امیدخواه ، رامین کریم زاده، علی حق طلب، مطالعه آزمایشگاهی و مدل سازی ترمودینامیک تعادلات سامانه شبه پنج جزئی برش نفتا ، سولفولان و آب ، نشریه علوم و مهندسی جداسازی دوره پانزدهم، شماره دوم ، ۱۴۰۲ ، ۱-۱۶

۱۲۷. عباس محمدی ، ممدرضا امیدخواه ، رامین کریم زاده، علی حق طلب، آروماتیک زدایی استخراجی برش نفتا با استفاده از مخلوط مایع یونی ۳- متیل نرمال - بوتیل پیریدینیوم دی سیان ایمید و حلال صنعتی سولفولان ، نشریه علوم و مهندسی جداسازی دوره پانزدهم، شماره اول ، ۱۴۰۲ ، ۷۰-۸۹

۱۲۶. عباس محمدی ، ممدرضا امیدخواه ، رامین کریم زاده، علی حق طلب، بهینه سازی پیش تصفیه استخراجی خوراک واحد شکست نفتا با استفاده از روش سطح پاسخ، نشریه علوم و مهندسی جداسازی دوره پانزدهم، شماره اول ، ۱۴۰۲ ، ۵۵-۶۹

۱۲۵. Parya Torkaman, Ramin Karimzadeh, Arezou Jafari, Assessment of the synthesis method of Fe₃O₄ nanocatalysts and its effectiveness in viscosity reduction and heavy oil upgrading, Scientific reports, 2023, 18, 18151, <https://doi.org/10.1038/s41598-023-41441-6>

۱۲۴. پیمان تقوی ، رضا خوشبین ، عرفان آقایی ، رامین کریم زاده "ارزیابی ترمودینامیکی تولید هیدروژن با واکنش ریفرمینگ متانول با بخار آب به کمک روش کمینه سازی انرژی آزاد گیبس" نشریه شیمی و مهندسی شیمی دوره ۴۱ شماره ۳، ۱۴۰۱ ، ۲۲۱-۲۲۹

۱۲۳. Sheerzad Ahmadzadeh^۱, Parya Torkaman^۲, Seyedeh Saba Kalati^۳, Arezou Jafari, Ramin Karimzadeh, Environmental effects of enhanced oil recovery methods, Journal of advanced environmental research and technology, ۲۰۲۳ ۱, ۱, ۳۹-۴۸

۱۲۲. Maryam Soleimani, Ramin Karimzadeh, Alimorad Rashidi, Ali Eslamimanesh, Effectiveness Study of Mesoporous Size, Acidity, and Precursor Type on Characterization of Activated Carbon as an Fe-Mo Catalyst Support for Hydrodesulfurization of Heavy Naphtha, Ind. Eng. Chem. Res., ۲۰۲۳, ۶۲, ۱۰۴۱۹-۱۰۴۳۰

121. Farid Masoumi, Sahar Safari, Reza Khoshbin, Ramin Karimzadeh, Utilization of agricultural waste (rice husk) in synthesis of TS-۱ zeolite as a support for NiMo nanocatalyst employed in hydrodesulfurization of heavy oil, Advanced Powder Technology, ۳۴(۲۰۲۳), ۱۰۴-۱۳۴

120. Sara Ghane Garde, Elham S. Moosav, Ramin Karimzadeh, Insights into the Impacts of Synthesis Parameters on Lignin-Based Activated Carbon and Its Application for: Methylene Blue Adsorption, Journal of Chemical and Petroleum Engineering (JChPE), ۲۰۲۳, ۵۷(۱): ۱۱۱-۱۳۲.

۱۱۹. Parya Torkaman, Ramin Karimzadeh Arezou Jafari, Experimental Investigation of Fe^۳O_۴ and Activated Carbon Effect on the Heavy Oil Upgrading Process by Electromagnetic Heating Applied Research in Chemical – Polymer Engineering, Vol. ۱, No. ۱ page ۳-۱۵, Spring ۲۰۲۳

۱۱۸. Sara Ghane Garde, Elham S. Moosav, Ramin Karimzadeh, Investigation of effect of lignin-based activated carbon synthesis parameters on its structural properties, Applied Research in Chemical – Polymer Engineering, Vol. ۵, No.۳ page ۷۱-۸۱ ,fall ۲۰۲۱
۱۱۷. Faezeh Mirshaiee, Reza Khoshbin, Ramin Karimzadeh, Steam-assisted methanol conversion to green fuel over highly efficient hierarchical structured MFI/BEA composite zeolite synthesized by incorporation method, Renewable Energy ۱۹۷ (۲۰۲۲) ۱۰۶۱-۱۰۶۸
۱۱۶. Roya Hamidi, Reza Khoshbin, Ramin Karimzadeh, Influence of Fuel Type on Ultrasonic-assisted Combustion Synthesis of NiMo/ Al₂O₃ Catalyst for Hydrodesulfurization of Thiophene, Journal of Petroleum Science and Technology ۱۱(۴): ۳۱, ۲۰۲۱, Pages ۱۴-۲۳
۱۱۵. Faezeh Mirshafiee, Reza Khoshbin, Ramin Karimzadeh, Zahra Nargesi, Synthesis and specification of template free ZSM-۵/Beta composite catalyst and kinetic modeling for the methanol to gasoline (MTG) process, J. of fuel and combustion, Vol. ۱۵, No. ۱, ۱۴۰۱, ۱-۲۳ (Persian language)
۱۱۴. Leila Yosefia, Reza Khoshbin, Ramin Karimzadeh, Beneficial incorporation of metal-sulfur interaction in adsorption capacity of boron nitride based adsorbents used in highly selective sulfur removal. Fuel, Volume ۳۱۰, Part B, ۱۵ February ۲۰۲۲
۱۱۳. Faezeh Mirshaiee, Ramin Karimzadeh, Reza Khoshbin, Effect of Textural Properties of Y, ZSM-۵ and Beta Zeolites on their Catalytic Activity in Catalytic Cracking of a Middle Distillate Cut Named RCD, Journal of Oil, Gas and Petrochemical Technology ۸(۲): ۶۰-۷۴, Summer and Autumn ۲۰۲۱
۱۱۲. Mahsa Askari, Erfan Aghaei, Ramin Karimzadeh, Zeolite Y synthesis from rice husk ash as Si source using hydrothermal and hydrothermal assisted ultrasound methods used in catalytic cracking of liquid hydrocarbons, J. of fuel and combustion, Vol. ۱۲, No. ۳, ۱۳۹۸, ۱-۱۴ (Persian language)
۱۱۱. Faezeh Mirshaiee, Reza Khoshbin, Ramin Karimzadeh, A green approach for template free synthesis of Beta zeolite incorporated in ZSM-۵ zeolite to enhance catalytic activity in MTG reaction: Effect of seed nature and temperature, Journal of Cleaner Production ۳۶۱ (۲۰۲۲) ۱۳۲۱۵۹
۱۱۰. Rostampour Amir, Khoshbin Reza, Karimzadeh Ramin, Synthesis and characterization of CuO, ZnO and CeO₂ adsorbents based on silica derived from Rice husk ash and evaluation of its performance in the desulfurization process of model fuel, J. of fuel and combustion, Vol. ۱۴, No. ۳, ۱۴۰۰, ۱۴۲-۱۵۹ (Persian language)
۱۰۹. Saman Alimohammadi, Ramin Karimzadeh, Effect of size of tire parts and Mazut Addition on simultaneous pyrolysis of used tire and Mazut, Applied Research in Chemical-Polymer Engineering. ۲۰۲۰, ۳(۴), ۱۳-۲۴ (Persian Language)
۱۰۸. Lingyu Tai, Roya Hamidi, Benedetta de Caprariis, Martina Damizia, Laura Paglia, Marco Scarsella, Ramin Karimzadeh, Paolo De Filippis, Guaiacol hydrotreating with in-situ generated hydrogen over ni/ modified zeolite supports, Renewable Energy, ۱۸۲, ۲۰۲۲, ۶۴۷-۶۵۸
۱۰۷. Faezeh Mirshafiee, Ramin Karimzadeh, Reza Khoshbin, Free template synthesis of novel hybrid MFI/BEA zeolite structure used in the conversion of methanol to clean gasoline: Effect of Beta

zeolite content, Fuel, ۳۰۴, ۲۰۲۱, ۱۲۱۳۸۶

۱۰۶. Zahra Nargessi, Ramin Karimzadeh, Six-lumped kinetic model for catalytic cracking of heavy gas oil over zeolite Y; considering deactivation catalyst, J. of fuel and combustion, Vol. ۱۴, No. ۱, ۱۴۰۰, ۳۱-۴۴ (Persian language)

۱۰۵. Elahe Dehghani Kazerouni, Ramin Karimzadeh, Fatemeh Eslami, Statistical Modeling and Optimization of the Effective Parameters in Precipitation of Asphaltene from Vacuum Residue by Industrial Solvents, Applied Research in Chemical – Polymer Engineering, Vol. ۴, No. ۴ page ۳-۲۱, winter ۲۰۲۱ (Persian Language)

۱۰۴. Sina Alizad, Elham Sadat Moosavi, Ramin Karimzadeh, Low-Temperature Catalytic Cracking of Heavy Feedstock Optimized by Response Surface Method, Journal of Chemical and Petroleum Engineering ۲۰۲۰, ۰۴(۱): ۱۳-۳۳

۱۰۳. Peyman Taghavi Eishkooh, Reza Khoshbin, Ramin Karimzadeh, Steam Catalytic Cracking of Vacuum bottom over $Al_2O_3-ZrO_2-CeO_2/Fe_2O_3$ Catalysts: Effect of aging time on textural properties of catalysts, Journal of Oil, Gas and Petrochemical Technology ۸(۱): ۲۳-۳۰, Winter and Spring ۲۰۲۱

۱۰۲. Zahra Nargessi and Ramin Karimzadeh, Analysis of Heat and Mass Transfer and Parametric Sensitivity in an Experimental Fixed-Bed Reactor for the Catalytic Cracking of Heavy Hydrocarbons Based on Modeling and Experiments, Ind. Eng. Chem. Res. ۲۰۲۱, ۶۰, ۴۸۳۱-۴۸۴۶

۱۰۱. Hamidi Roya, Khoshbin Reza, Karimzadeh Ramin, A new approach for synthesis of well-crystallized Y zeolite from bentonite and rice husk ash used in Ni-Mo/ Al_2O_3 -Y hybrid nanocatalyst for hydrocracking of heavy oil, Advanced Powder Technology ۳۲ (۲۰۲۱) ۰۲۴-۰۳۴

۱۰۰. Abedi Mohammad Ali, Abbasizadeh Saeed, Karimzadeh Ramin, adsorptive

desulfurization of model diesel fuel over mono-functionalized nickel/ γ -alumina and bi-functionalized nickel/cerium/ γ alumina adsorbents, Research on Chemical Intermediates (۲۰۲۱) ۴۷: ۴۹۷-۰۲۰

۹۹. E. Aghaei, M. Ebrahimnejad, R. Khoshbin, R. Karimzadeh, S. Moridi, H.R. Godini, O. Gorke, Synthesis of mesoporous Y zeolite from pyrophyllite as Si and Al source used in gasoline and gasoil production from heavy oil, Fuel and Combustion, No. ۱, ۱۳۹۹, ۰۰-۶۶ (Persian language)

۹۸. F. Kouhestani, F. Eslami, R. Karimzadeh, Statistical optimization using central composite design for the desilication process of natural zeolite for water sorption from diesel fuel, Fuel and Combustion, No. ۴, ۱۳۹۸, ۹۷-۱۱۰ (Persian language)

۹۷. Roya Hamidi, Reza Khoshbin, Ramin Karimzadeh, "Facile fabrication, characterization and catalytic activity of a NiMo/ Al_2O_3 nanocatalyst via a solution combustion method used in a low temperature hydrodesulfurization process: the effect of fuel to oxidant ratio" RSC Adv. , ۲۰۲۰, ۱۰, ۱۲۴۳۹

۹۶. E. Aghaei, R. Karimzadeh, H.R. Godini, A. Gurlo, O. Gorke, Improving the physicochemical properties of Y zeolite for catalytic cracking of heavy oil via sequential steam-alkali-acid treatments, Microporous and Mesoporous Materials ۲۹۴ (۲۰۲۰) ۱۰۹۸۰۴

۹۵. Mitra Ebrahiminejad, Ramin Karimzadeh, Influence of Phosphorus Content on Properties and Performance of NiW Nanocatalyst Supported on activated Red Mud in Atmospheric Diesel Hydrodesulfurization, *Journal of Hazardous Materials*, ۳۸۴, ۲۰۲۰
۹۴. Mahsa Askari, Erfan Aghaei, Ramin Karimzadeh, Zeolite Y synthesis from rice husk ash as Si source using hydrothermal and hydrothermal assisted ultrasound methods used in catalytic cracking of liquid hydrocarbons, *Fuel and Combustion*, Vol. ۱۲ No. ۳, ۱۳۹۸, ۱-۱۵ (Persian language)
۹۳. 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*, Vol. ۱۲ No. ۱, ۱۳۹۸, ۹۷-۱۱۷ (Persian language)
۹۲. Asadi Sareh, Saeed Ababsizadeh, Ramin Karimzadeh, “Kinetic modeling of LPG catalytic cracking using Langmuir-Hinshelwood-Hougen-Watson theory”, *Research On Chemical Intermediate*, ۲۰۱۹, ۴۵(۱۱), ۵۶۸۱-۵۷۰۳
۹۱. Amin Alamdari, Ramin Karimzadeh, Relating catalytic activity of CrHZSM-۵ in oxidative dehydrogenation of liquefied petroleum gas under an external DC electric field to electrical properties, *Mater. Res. Express* ۶(۲۰۱۹).۸۵۵۰۳
۹۰. 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. ۲, ۱۳۹۸, ۷۵-۸۸ (Persian language)
۸۹. Sahar Safari, Reza Khoshbin, Ramin Karimzadeh, Beneficial use of ultrasound irradiation in synthesis of beta-clinoptilolite composite used in heavy oil upgrading process, *RSC Advances*, ۲۰۱۹, ۹, ۱۶۷۹۷-۱۶۸۱۱
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