

بسمه تعالی

مشخصات فردی

نام و نام خانوادگی: محمدرضا امیدخواه نسرين

مرتبه علمی: استاد تمام

سابقه کاری: دانشکده مهندسی شیمی دانشگاه تربیت مدرس از سال ۱۳۶۹ تا کنون

آدرس پستی: تهران-بزرگراه جلال آل احمد دانشگاه تربیت مدرس

آدرس الکترونیکی: omidkhah@modares.ac.ir و momidkhah@gmail.com

تلفن تماس: ۰۲۱-۸۲۸۸۳۳۳۴ تلفن همراه: ۰۹۱۲۱۰۱۳۳۹۰

تحصیلات

ردیف	مقطع تحصیلی	تاریخ اخذ مدرک	دانشگاه و رشته تحصیلی	کشور
۱	کارشناسی	۱۳۶۱	صنعتی امیرکبیر - مهندسی شیمی	ایران
۲	کارشناسی ارشد	۱۳۶۴	Wayne State Univ. Michigan مهندسی شیمی	آمریکا
۳	دکتری	۱۳۶۹	UMIST, Manchester مهندسی شیمی	انگلستان

زمینه های تحقیقاتی

- طراحی و بهینه سازی فرایند (Process synthesis and optimization)
- مدل سازی و شبیه سازی (Modeling and simulation)
- یک پارچه سازی فرایند- فناوری پینچ (Process integration-Pinch Technology)
- بازیابی حرارت در فرایند (Process heat recovery)
- مدیریت انرژی (Energy management)
- جداسازی غشایی: میکروفیلتراسیون، اولترافیلتراسیون، اسمز معکوس، تبخیر تبریدی و جداسازی گازها
- (Membrane Separation Processes: MF, UF, RO, PV, GS)
- سنتز و مشخصه یابی غشاهای پلیمری (Polymeric Membrane Preparation and Characterization)
- بکارگیری غشا در صنعت نفت و گاز و پتروشیمی (Membrane in oil, gas and petrochemical industry)
- فناوری پلاسما (Plasma technology)

مسئولیت ها

۱۳۸۹ - تاکنون	استاد تمام دانشگاه تربیت مدرس
۱۳۸۲ - ۱۳۸۹	دانشیار دانشگاه تربیت مدرس
۱۳۶۹ - ۱۳۸۲	استادیار دانشگاه تربیت مدرس
۱۳۹۲ - ۱۴۰۰	رئیس پژوهشگاه شیمی و مهندسی شیمی ایران
۱۳۸۶ - ۱۳۸۹	مدیر پژوهش و فناوری شرکت ملی پالایش و پخش فراورده های نفتی ایران
۱۳۷۸ - ۱۳۸۶	مجری طرح اعطای کمک های فنی و تکنولوژی به صنایع ایران
۱۳۷۷ - ۱۳۷۸	فرصت مطالعاتی در دانشگاه منچستر انگلستان
۱۳۷۶ - ۱۳۷۷	مدیر امور بین الملل موسسه مطالعات بین المللی انرژی وزارت نفت
۱۳۷۳ - ۱۳۷۴	مدیر دفتر منطقه ای توسعه صنعتی سازمان ملل متحد (یونیدو) در ایران
۱۳۷۲ - ۱۳۷۳	معاون آموزش و تحقیق وزیر صنایع
۱۳۷۱ - ۱۳۷۲	معاون آموزشی دانشگاه خواجه نصیرالدین طوسی
۱۳۷۰ - ۱۳۷۱	رئیس بخش فنی مرکز کامپیوتر و اطلاعات مدیریت شرکت ملی نفت ایران

برخی از دستاورد های پژوهشی

- چاپ بیش از ۱۷۰ مقاله علمی پژوهشی در مجلات بین المللی
- چاپ بیش از ۴۰ مقاله در نشریات علمی داخلی
- ارائه بیش از ۱۲۰ مقاله علمی در کنفرانس های علمی داخلی و خارجی
- تالیف سه جلد کتاب علمی و ترجمه یک جلد کتاب علمی
- دارای H-Index = 43 و تعداد ارجاعات (citation = 6700)
- ۵ ثبت اختراع
- پژوهشگر برتر دانشگاه در سال های ۱۴۰۰ و ۱۴۰۱
- استاد نمونه دانشگاه در سال ۱۴۰۳

هدایت پایان نامه ها

ردیف	مقطع تحصیلی	تعداد
۱	راهنمایی پایان نامه ارشد	بیش از ۱۲۰
۲	راهنمایی رساله دکتری تخصصی	بیش از ۶۰

برخی از طرح های پژوهشی انجام شده

ردیف	عنوان طرح تحقیقاتی
۱	گوگرد زدایی اکسایشی از سوخت های سبک هیدروکربوری
۲	تولید هیدروژن از خوراک هیدروژن سولفید در رآکتور پلاسما
۳	تولید گاز سنتز از خوراک متان در رآکتور پلاسما
۴	ارتقا فرآیند ریفرمینگ متان- بخار با استفاده از یک رآکتور غشائی
۵	بررسی امکان جایگزینی MTBE با افزودنیهای با مخاطرات کمتر در بنزین
۶	بررسی و آنالیز MTBE در آبهای زیر زمینی تهران
۷	مدلسازی و شبیه سازی واحد الفین مجتمع پتروشیمی اراک
۸	تصفیه فاضلاب صنایع غذایی با رشد میکربی در بستر ثابت
۹	حذف آب دور ریز واحد اوره منطقه ۱ پتروشیمی شیراز
۱۰	تهیه آلفا پنین از تربانترین درخت بنه
۱۱	شبیه سازی و بهینه سازی واحد اسید نیتریک مجتمع پتروشیمی شیراز
۱۲	روشهای کاهش (کمینه سازی) آلاینده (فاضلاب) در مبدا تولید واحدهای صنعتی عمده کشور

افتخارات و سمت های اجرایی

۸ سال	رئیس و دبیر انجمن مهندسی شیمی ایران
۱۳۹۴ تا کنون	عضو هیات موسس و هیات مدیره و مدیرمسئول نشریات انجمن مهندسی گاز ایران
۱۳۷۳ - ۱۳۷۵	مشاور وزیر صنایع
۱۳۶۹ - ۱۳۷۵	مشاور شرکت ملی صنایع پتروشیمی
۱۳۶۹ - ۱۳۷۴	مشاور شرکت ملی نفت ایران
۱۳۹۸ تا کنون	عضو کمیسیون نشریات علمی کشور
۱۳۸۸ تا کنون	عضو هیات تحریریه نشریه پژوهش نفت
۱۳۸۸ - ۱۳۹۲	عضو هیات تحریریه مجله فرایندنو (شرکت ملی پالایش و پخش فراورده های نفتی ایران)
۵ سال	عضو هیات تحریریه نشریه اقتصاد انرژی
۴ سال	عضو هیات تحریریه Iranian Journal of Chemical Engineering
۱۳۹۳ تا کنون	عضو هیات تحریریه Journal of Renewable Energy and Environment

Peer Reviewed Published Papers:

1. Salehi AA, **Omidkhah MR**, Ebadi Amooghin A, Moftakhari Sharifzadeh MM, "Improved gas separation performance of PMMA/Matrimid@5218/graphene oxide (GO) mixed matrix membranes", *Journal of CO2 Utilization*, 91, 2025, 103012.
2. Haji Andevary H, Akbari A, Safari P, **Omidkhah MR**, Sharifi A, Mirzaei M, "Fabricated [Omim]FeCl₄@Al₂O₃ as an Efficient Fenton-like Catalyst for Solvent-Free and High Selective Oxidative Desulfurization", *Energy Fuels*, 39, 2025, 1042–1051.
3. Hosseinkhani A, Safari P, **Omidkhah MR**, Ebadi Amooghin A, Norouzi A M, "A high-efficiency Pebax® 1657-based mixed matrix membrane containing molybdenum oxide particles for enhanced CO₂/N₂ separation", *International Journal of Environmental Science and Technology*, 22, 2025, 6847–6862.
4. Kamali J, Mahmoudi Heris S, **Omidkhah MR**, Hejazi T H, "Determining the Priority of Tank Overhaul by Combining Quantitative Risk Assessment Method and Multi-Criteria Decision-Making Techniques", *Nashrieh Shimi va Mohandesi Shimi Iran*, 43(4), 2025, 229-240. (In Farsi).
5. Hosseinkhani A, **Omidkhah MR**, Ebadi Amooghin A, "Fine-tuning CO₂ separation of mixed matrix membranes by constructing efficient transport pathways through the addition of hybrid porous 2D nanosheets", *Chemical Engineering Journal Advances*, 20, 2024, 100685.
6. Naseri M, **Omidkhah MR**, Mousavi SF, "Advanced electro-assisted filtration of crude oil/water using a conductive mullite whiskers membrane", *Journal of Environmental Chemical Engineering*, 12, 2024, 114060.
7. Naseri M, **Omidkhah MR**, Mousavi SF, "A study on the efficient separation of oily water using mullite whiskers membrane through combined filtration and electrofiltration", *RSC Advances*, 14, 2024, 30245.
8. Akbari A, Haji Andevary H, **Omidkhah MR**, "Boosted Regeneration of Coked SAPO-34 Catalyst in MTO Fluidized Bed Reactor by Diluted Air at Elevated Temperatures", *Chemical Engineering and Processing-Process Intensification*, 201, 2024, 109821.
9. Mohammadi A, **Omidkhah MR**, Karimzadeh R, Haghtalab A, "Experimental Investigation and Thermodynamic Modeling of Equilibria in the Quinary System Naphtha Cut, Sulfolane, and Water", *Journal of Separation Science and Engineering* 15 (2), 2024, 1-16.
10. Gharibshahi R, **Omidkhah MR**, Jafari A, "Sandpack flooding of microwave absorbent nanofluids under electromagnetic radiation: an experimental study", *Journal of Petroleum Exploration and Production Technology*, 14 (3), 2024, 853-865.
11. Shirinia M, Abdollahi M, **Omidkhah MR**, "Effect of vinyl acetate/dibutyl maleate copolymers on gas transport properties of poly (ethylene oxide-b-amide 6) membranes: a comprehensive study on permeability, diffusivity solubility, and permselectivity of carbon dioxide", *Iranian Polymer Journal*, 33 (6), 2024, 799-814.
12. Tohidi Z, Jafari A, **Omidkhah MR**, "Janus Silica Nanoparticles at Three-Phase Interface of Oil–Calcite–Electrolyte Water: Molecular Dynamics Simulation", *Korean Journal of Chemical Engineering* 41 (4), 2024, 1077-1092.
13. Mousavi YS, Akbari A, **Omidkhah MR**, Safari P, "Formulated Mn-promoted SAPO-34/kaolin/alumina sol micro-size catalyst with a superior performance for methanol to light olefins conversion in a fluidized bed reactor", *Journal of Industrial and Engineering Chemistry*, 129, 2024, 403-412.

14. Seifi MH, Sharifzadeh M, Ghorbani M, **Omidkhah MR**, "Study on synthesis of doped polyaniline with alumina and its anticorrosion properties as an additive in paint coating", *Iranian Journal of Chemistry and Chemical Engineering*, 42 (10), 2023, 3257-3266.
15. Naseri M, **Omidkhah MR**, "Optimizing the fabrication conditions of monolithic mullite whisker membrane from kaolin and bauxite using the Taguchi method", *Ceramics International* 49 (14), 2023, 23612-23626.
16. Mohammadi A, **Omidkhah MR**, Karimzadeh R, Haghtalab A, "Optimization of Extractive Pretreatment of Naphtha Cracker Feedstock Using Response Surface Methodology", *Journal of Separation Science and Engineering* 15 (1), 2023, 55-69.
17. Mohammadi A, **Omidkhah MR**, Karimzadeh R, Haghtalab A, "Extractive Dearomatization of Naphtha Cut using 3-Methyl-N-Butylpyridinium Dicyanamide+ Sulfolane Mixed Solvent" *Journal of Separation Science and Engineering* 15 (1), 2023, 70-89.
18. Rashidian SH, **Omidkhah MR**, Zamani Pedram M, Hoseinzadeh S, "Study of the physicochemical and transport performance of neat Matrimid 5218 membrane with nanoparticles: A molecular dynamics simulation", *Engineering Analysis with Boundary Elements* 150, 2023, 642-661.
19. Hosseini SR, **Omidkhah MR**, Lighvan ZM, Norouzbahari S, Ghadimi A, "Synthesis, characterization, and gas adsorption performance of an efficient hierarchical ZIF-11@ ZIF-8 core-shell metal-organic framework (MOF)", *Separation and Purification Technology* 307, 2023, 122679.
20. Varae M, Honarvar M, Eikani MH, **Omidkhah MR**, Mooraki N, "Optimized Purification of Free Amino Acids from Molasses by Nanofiltration Membrane", *Journal of Food Biosciences and Technology* 13 (1), 2023, 1-22.
21. Hamed M, **Omidkhah MR**, Sadrameli SM, Khoshgoftar Manesh MH, "Exploring the improvement potentials in an existing industrial olefin plant through advanced exergy-based analyses", *Journal of Cleaner Production* 380, 2022, 134927.
22. Nikookar M, **Omidkhah MR**, Pazuki GR, Mohammadi AH, "An insight into molecular weight distributions of asphaltene and asphalt using Gel Permeation Chromatography", *Journal of Molecular Liquids*, 362, 2022, 119736.
23. Gharibshahi R, **Omidkhah MR**, Jafari A, Mehrooz N, "Parametric optimization of in-situ heavy oil upgrading using simultaneous microwave radiation and magnetic nanohybrids via Taguchi approach", *Fuel*, 325, 2022, 124717.
24. Gharibshahi R, **Omidkhah MR**, Jafari A, Fakhroueian Z, "Experimental investigation of nanofluid injection assisted microwave radiation for enhanced heavy oil recovery in a micromodel system", *Korean Journal of Chemical Engineering*, 39 (3), 2022, 562-575.
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26. Tohidi Z, Teimouri A, Jafari A, Gharibshahi R, **Omidkhah MR**, "Application of Janus nanoparticles in enhanced oil recovery processes: Current status and future opportunities", *Journal of Petroleum Science and Engineering*, 208, 2022, 109602.
27. Hamed M, **Omidkhah MR**, Sadrameli SM, K Manesh M H, "Exergetic, exergoeconomic, and exergoenvironmental analyses of an existing industrial olefin plant", *Sustainable Energy Technologies and Assessments*, 52, 2022, 102175.

28. Asleshirin S, Mazaheri H, **Omidkhah MR**, Hassani Joshaghani A, "Investigation of Thermophysical Properties of Io Nanofluids Containing Multi-Walled Carbon Nanotubes and Graphene", Iran. J. Chem. Chem. Eng., 2022, Vol 40 (2).
29. Bashiri N, **Omidkhah MR**, Godini H, "Direct conversion of CO₂ to light olefins over FeCo/XK-YAL₂O₃ (X = La, Mn, Zn) catalyst via hydrogenation reaction", Research on Chemical Intermediates, 47, 2021, 5267–5289.
30. Ghasemi goudarzi P, Hojjati MR, **Omidkhah MR**, Tavallali MS, "Estimation of Kinetic Parameters and Simulation of Methylacetylene and Propadiene Liquid-Phase Selective Hydrogenation Reactor Considering the Catalyst Deactivation", Industrial & Engineering Chemistry Research, 2021, DOI 10.1021/acs.iecr.1c01593.
31. Sabet SA., **Omidkhah MR**, Jafari A, "Methods for Viscosity Reduction of Heavy Crude Oil with Focus on Nano Catalysts: A Review Study", Iranian Chemical Engineering Journal, 19(112), 2021, 74-85.
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34. Tohidi Z, Jafari A, **Omidkhah MR**, "Electrolyte Nanofluid Performance on Oil Detachment from an Oil-Wetted Carbonate Surface: Water Channel Formation Using Molecular Dynamics Simulation", Journal of Petroleum Science and Engineering, 196, 2021, 108006.
35. Asadpoor M, Arjmand M, Farhadian M, **Omidkhah MR**, Zinatizadeh AA, "Optimization and modeling of the photocatalytic activities of a novel visible driven cnt/tio₂ /biobr/bi₂ s₃ nanocomposite", Desalination and Water Treatment, 209, 2021, 219–229.
36. Gharedaghi M, **Omidkhah MR**, Abdollahi S, Ghadimi A, "An Investigation on Gas Transport Properties of Elvaloy4170/[Emim][Tf₂N] Hybrid Membranes for Efficient CO₂/CH₄ Separation" Journal of Membrane Science and Research, 7, 2021, 185-195.
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39. Miri S, **Omidkhah MR**, Ebadi Amooghin A, Matsuura T, " Membrane-based gas separation accelerated by quaternary mixed matrix membranes", Journal of Natural gas Science and Engineering, 84, 2020, 103655.
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45. Pourziad S, **Omidkhah MR**, "Improved antifouling and self-cleaning ability of PVDF ultrafiltration membrane grafted with polymer brushes for oily water treatment", *Journal of Industrial and Engineering Chemistry*, 83, 2020, 401-408.
46. Akbari A, Chamack M, **Omidkhah MR**, "Reverse microemulsion synthesis of polyoxometalatebased heterogeneous hybrid catalysts for oxidative desulfurization" *Journal of Materials Science*, 55 (15), 2020, 6513–6524.
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48. Haji Andevary H, Akbari A, Rajabi Z, **Omidkhah MR**, "Towards a room temperature oxidative desulfurization of refractory 2 compounds over 1-octyl-3-methylimidazolium tetrachloroferrates/silica gel: the beneficial effects of immobilization", *Process Safety and Environmental Protection*, 136, 2020, 343-352.
49. Kalantari S, **Omidkhah MR**, Ebadi Amooghin A, Matsuura T, "Superior interfacial design in ternary mixed matrix membranes to enhance the CO₂ separation performance", *Applied Materials Today*, 18, 2020, 100491, 1-17.
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58. Azami H, **Omidkhah MR**, "Modeling and optimization of characterization of nanostructure anodized aluminium oxide membranes", *Journal of the Iranian Chemical Society*, 16 (5), 2019, 985–997.
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