

Broaden your horizons and discover your strengths in an enriching environment

As the first graduate university in Iran, Tarbiat Modares University (TMU) has its origin in 1982 with the mission of training academic staff and researchers required by universities, centers of higher education and industries. TMU is one of the top universities in Iran. The world ranking of TMU by CWTS Leiden ranking (2021) is 333. The central campus of the university is located in Tehran, the capital of Iran.

Faculty of Chemical Engineering was established at TMU in 1983. Its main mission is to train expert and proficient human resources in M.Sc. and Ph.D. levels. The faculty of chemical engineering is composed of 6 departments. It is necessary to note that some of the available labs in our faculty are able to perform semi-industrial studies and provide the industrial society with valuable services. Currently, the faculty of chemical engineering pursues its main goal to admit international students in related subjects offered by the TMU.

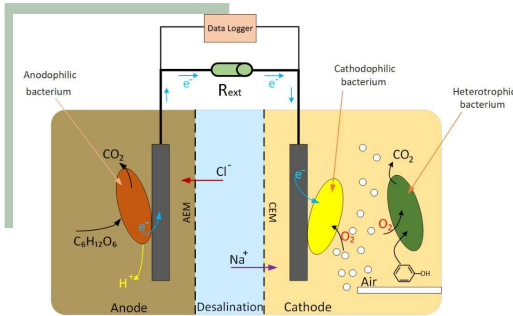
RESEARCH AREAS

- ◆ Bioprocess Engineering
- ◆ Environmental Biotechnology
- ◆ Industrial Biotechnology
- ◆ Recombinant Proteins
- ◆ Food Biotechnology
- ◆ Metabolic Engineering



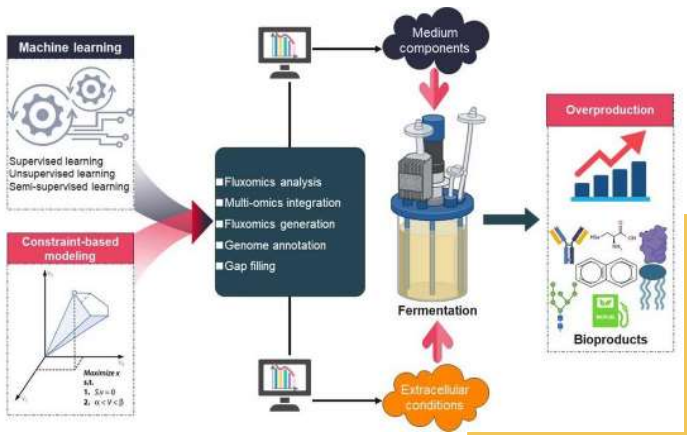
LABORATORIES

- ◆ Biotechnology Lab
- ◆ Bioreactors Lab
- ◆ Nanobiotechnology Lab



Find more about us at

<https://www.modares.ac.ir/en-cheme/departments/biotechnology>

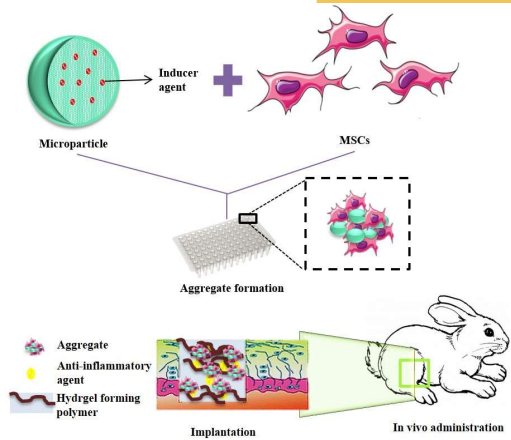


RESEARCH AREAS

- ◆ Nanomedicine
- ◆ Novel Drug Delivery Systems
- ◆ Tissue Engineering
- ◆ Cell Therapy

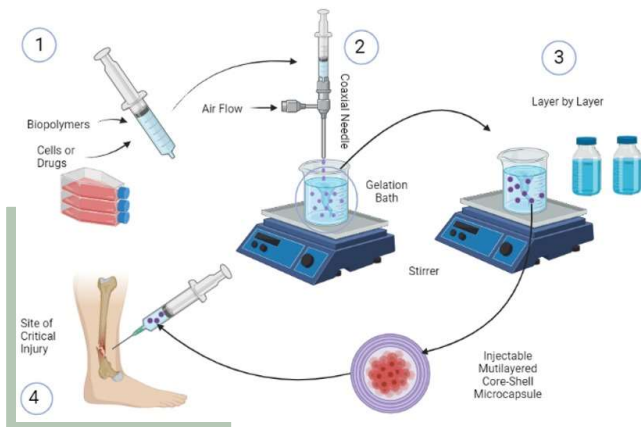
LABORATORIES

- ◆ Cell Culture Lab
- ◆ Tissue Engineering and Drug Delivery Lab



Find more about us at

<https://www.modares.ac.ir/en-cheme/departments/biomedical-engineering>



RESEARCH AREAS

- ◆ Sustainability and Environmental Stewardship
- ◆ Water and Wastewater Treatment
- ◆ Catalysis, Reaction Engineering, and Reactor Design
- ◆ Heavy Oil Upgrading and Desulfurization
- ◆ Gas Hydrate and Gas Sweetening
- ◆ Thermodynamics and Transport Phenomena
- ◆ Colloids and Interfacial Phenomena
- ◆ Nanotechnology and Functional Materials
- ◆ Membranes, Sorbents and Advanced Separation Techniques
- ◆ Optimal Design of Process Systems
- ◆ Process Simulation, Control, and Digitalization
- ◆ Process Integration
- ◆ Energy Storage and Conversion
- ◆ Industrial Energy Efficiency
- ◆ Renewable Energies: Solar Cells and Solar Water Treatment
- ◆ Corrosion Engineering and Material Properties
- ◆ Recycle and Recovery of Critical Materials
- ◆ Application of Artificial Intelligence in Chemical Engineering

LABORATORIES

- ◆ Membrane Processes Lab
- ◆ Olefin Lab
- ◆ Cracking and Catalyst Lab
- ◆ Energy Engineering Lab
- ◆ Gas Hydrate Lab

Find more about us at

<https://www.modares.ac.ir/en-cheme/departments/process-engineering>



RESEARCH AREAS

- ◆ Smart Materials
- ◆ Polymer Processing
- ◆ Polymer Rheology
- ◆ Polymers with Medical Application
- ◆ Elastomer Science and Engineering
- ◆ Ablation and Heat Protection
- ◆ Adhesion and Adhesives
- ◆ Polymer Colloids
- ◆ Fracture in Polymers

LABORATORIES

- ◆ Polymer Engineering General Lab
- ◆ Polymer Processing Lab
- ◆ Polymer Processing Workshop
- ◆ Polymer Rheology Lab
- ◆ Elastomer Lab
- ◆ Physics and Mechanics of Polymers Lab
- ◆ Melt-Spinning Lab

Find more about us at

<https://www.modares.ac.ir/en-chem/departments/polymer-engineering>



RESEARCH AREAS

- ◆ Molecular Design and Synthesis of Polymers with Controlled Architectures
- ◆ Catalysts Used in Polymerization Reactions
- ◆ Synthetic Study and Modeling of Polymerization Reactions
- ◆ Hydrodynamic and Thermodynamic Modeling of Polymerization Systems
- ◆ Polymeric Membranes (Fuel Cells, Gas Separation, Water Treatment)
- ◆ Lithium-ion Batteries
- ◆ Polymers and Nanopolymers in Oil Field Applications
- ◆ Polymers, Biopolymers and Nanoparticles Modification
- ◆ Controlling Morphology of Block Copolymers



LABORATORIES

- ◆ Polymer Reaction Engineering Lab
- ◆ Polymer Chemistry Lab
- ◆ Polymer Synthesis Lab

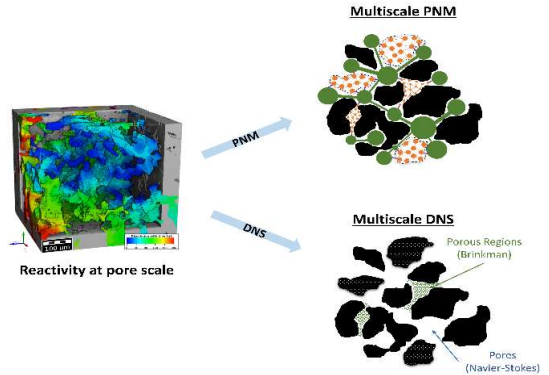
Find more about us at

<https://www.modares.ac.ir/en-cheme/departments/polymerization>



RESEARCH AREAS

- ◆ Novel and Hybrid EOR Techniques
- ◆ Artificial Intelligence & Digital Oil Fields
- ◆ Fluid Phase Behavior and Flow Assurance (Asphaltene, Wax, Hydrate)
- ◆ Digital Core Analysis and Pore Scale Modeling
- ◆ Drilling and Completion Fluids
- ◆ Nanotechnology in Petroleum Engineering
- ◆ Gas Storage
- ◆ Hydraulic Fracturing



LABORATORIES

- ◆ Enhanced Oil Recovery Lab
- ◆ Oil and Gas Research Lab

Find more about us at

<https://www.modares.ac.ir/en-chemie/departments/petroleum-engineering>





Faculty of Chemical Engineering

Tehran, Iran

Tel.: +9821 8288 3517

Fax: +9821 8288 4931

cheme.modares.ac.ir/en-cheme

chem.eng@modares.ac.ir

