

Hall A

Chair: Dr. Rahimpour / Dr. Parvareh

Biotechnology, 8:30-10:30

No.	Paper ID	Paper Title
1	1260-ICHEC	Synergistic Electrochemical Oxidation and Membrane Bioreactor for Pharmaceutical Wastewater Treatment: Performance and Fouling Mitigation H. R. Fathi, P. Farshbaf, H. Hazrati*
2	1058-ICHEC	Valorization of Sorghum Biomass for Simultaneous ABE Solvent and Volatile Fatty Acid Production Z. Mehrabi, A. Taheri-Kafrani*, H. Amiri
3	1265-ICHEC	Alginate Hydrogels Containing Galbanum Essential Oil for Controlled Drug Release: A Novel Replace For Classic Antibiotics M. Bagheri Tabar, M. R. Mehrnia*, F. Pourasgharian Roudsari
4	1482-ICHEC	Synthesis and Evaluation of Novel Molecularly Imprinted Polymers (MIPs) Using genipin as a crosslinker for colon-targeted delivery F. Borji Peydeh, S. S. Ashraf Talesh*
5	1507-ICHEC	Feasibility Study on Sulfate Reduction by Indigenous SRB from Tannery Effluent F. Shakeri, F. Naeimpoor*
6	1455-ICHEC	Enhancing Light Olefin Selectivity and Stability in MTO Process: Promotional Effects of LaO₂ and CeO₂ on SAPO-34 Catalyst M. Khalilifard, J. Towfighi Darian*, F. Mohammad Alikhani

10:30-11

Break

Biotechnology, 11:00-11:40

7	1874-ICHEC	Effect of PEG-induced Crowding on TMPyP4 Interaction with C9orf72 DNA G-quadruplexes R. Ganjehfar, B. Zamiri *
8	2052-ICHEC	Machine Learning Application for Predicting Final Biomass Concentration of Scenedesmus in Flat-Plate Photobioreactors A. pourebrahimi alamdari, M. Mohammadi, O. Tavakoli *

12:00-13:00

Break

Chemical Reaction Engineering, 13:00-14:40

9	1172-ICHEC	Hydrolysis of NaBH₄ with Promoted Co/MnFe₂O₄ Catalysts A. Ranjbar
10	1178-ICHEC	Kinetics and Synergy Investigation of the Thermal Treatment of Cellulosic/Polyester-Based Textile Waste T. Mostofian, F. Fotovat*
11	1111-ICHEC	Modeling the Biodiesel Production Using Weibull Distribution: Analyzing the Effect of Methanol to Oil Ratio In Four Different Synthesis Methods H. Maghsoudloord*; A. M. Vazini
12	1635-ICHEC	Utilization of blast furnace dust as a low cost photocatalyst for tetracycline remediation: Impact of key process factors N. Mirhoseini, M. Farhadian*, A.R. Solaimany Nazar, F. Rajaei, A. Heydari, M. Asimi
13	1357-ICHEC	Photocatalytic Degradation of Antibiotic Mixtures with Bi₂WO₆/TiO₂ Heterojunction in a Slurry Batch Reactor: Design of Experiments using Central Composite Design A. Tamimzadeh, A. Gordanshekan, S. Arabiyan, M. Abbasi, S. Safaei, M. Mirzaei, S. Abaei, d, M. Farhadian*, A. R. Solaimany Nazar, O. Tavakoli, S. Tangestaninejad

Hall B

Chair: Dr. Omidkhah / Dr. Arabpour

Energy & Sustainable Development, 8:30-10:30

No.	Paper ID	Paper Title
1	1079-ICHEC	Utilization of Spinel Based Catalysts to Enhance Biodiesel Production Process M. Paseban, H. Nayebezhadeh*, B. Rahmanivahid
2	1248-ICHEC	CeNiO ₃ Perovskite as an Efficient Oxygen Carrier for Chemical Looping Methane Reforming H. Sepahvand, A. Moheb, A. Zamaniyan*, Y. Zamani
3	1291-ICHEC	From Natural Clays to Sustainable Energy: Metal-free Bentonite-dispersed Boron Carbide for photoelectroalytic Hydrogen generation S. Shayesteh, N. Gilani*
4	1333-ICHEC	Thermo-Economic and Environmental Analysis of Excess Steam Recovery in Utility networks by Multi Effect Desalination Plant integration M. Rashidi, M. Roshanaei*, A. Kordi
5	2037-ICHEC	Data-Driven Modeling of Pyrolysis Product Yields using Machine Learning Algorithm M. Mohammadi, A. Pourebrahimi A., O. Tavakoli*
6	1088-ICHEC	Evaluation of the impact of rotational speed on CO ₂ absorption performance in an RPB absorber M. Shamsi, J. Towfighi Darian*, M. Afkhamipour

10:30-11:00

Break

Energy & Sustainable Development, 11:00-12:00

7	1446-ICHEC	Synthesis and Characterization of High Surface Area Layered MoS ₂ /RGO for Supercapacitor Applications H. Akbari*, M. Hamadani
8	1724-ICHEC	The Risk of Organic Scale Formation during Carbonated Water Injection into Oil Reservoirs: An Experimental Study B. Nikoumaram, M.H. Behroozi, M.S. Mousapour, H. Mahani*, S. Ayatollahi**
9	1766-ICHEC	Zeta Potential Driven Wettability Alteration in Carbonates Using Smart Water: Implications for CO ₂ Storage and Enhanced Oil Recovery Y. Niktab, A. Hamdi, S.M. Hosseini-Nasab*

12:00-13:00

Break

Nanotechnology, 13:00-15:00

10	1661-ICHEC	Experimental measurements of the CO ₂ +TBAB+Water hydrate system with and without Silver Nanoparticles H. Pahlavanzadeh*, A. Karamipour, A. H. Mohammadi
11	1699-ICHEC	Synthesis and Characterization of Galactose and Folate-Conjugated Chitosan Nanoparticles for Targeted Hepatocellular Carcinoma Drug Delivery A. H. Sharifi, M. Bakhshipoor, M. Rajabzadeh, A. B. Khoshfetrat*
12	1527-ICHEC	Antibacterial rGO/Wheat Straw-Based Sustainable Aerogels S. Fouji, Y. Asghari, S. Goleyj, D. Aliakbari, Z. Jarrahi, A. Allahbakhsh*
13	1422-ICHEC	Influence of Operating Parameters of High-Shear Wet Granulation on Size Distribution and Durability of Protease Enzyme Granules M. Sabz-Baluch, A. Samimi, D. Mohebbi-Kalhari*, S. H. Zohdi
14	1944-ICHEC	Preparation and Characterization of Injectable Hydrogel Based on Oxidized Persian Gum/Carboxymethyl Chitosan Loaded with MXene Nanosheets E. Ansari, E. Vasheghani-Farahani*, F. Ganji, F. Bagheri
15	1648-ICHEC	Synthesis and Characterization of Cs ₃ Bi ₂ Br ₉ Perovskite Quantum Dots: The effect of organic ligands F. Kolahdouzan, F. Khorasheh, A. Z. Moshfegh*

Hall C

Chair: Dr. Mostofi / Dr. Godini

Environmental Engineering, 8:30-10:30

No.	Paper ID	Paper Title
1	1080-ICHEC	Preparation of BiVO ₄ /TiO ₂ Nanotube Composites: Characterization and Optimization of Parameters to remove 4-Nitrophenol under Visible light A. Kaveh, A. A. Asgharinezhad*, A. Larimi, C. Ghotbi
2	1049-ICHEC	Electrosterically Stabilized Arabic Gum Biopolymer for High-Efficiency Adsorption of Heavy Metals from Aqueous Solutions G. Bakhshi Ganjeh, M. Vaziri, P. Darvishi, R. Darvishi*
3	1387-ICHEC	Physicochemical-Biological Treatment of Leachate with High Organic Load A. Shirzad, A. Pirouzi*, M. Rahimi Asrami
4	1651-ICHEC	Enhanced photocatalytic degradation of antibiotics in aqueous solution using Zn-modified ZIF-67 A. Jamshidian, F.E Hussein, M.R. Abbasi, M. Farhadian*, A. R. Solaimany Nazar

10:30-11:00

Break

Environmental Engineering, 11:00-12:20

5	1709-ICHEC	Modification of Mo ₂ TiAlC ₂ MAX phase for improving the separation performance of PES membranes Z. Chartab Mohammadi, A. Khataee*, S. Jabbarvand Behrouz
6	1883-ICHEC	Visible-Light-Active ZnO-Fe ₂ WO ₆ Composites for Efficient Tetracycline Removal from Water F. Babaei, A. R. Solaimany Nazar*, M. Farhadian
7	1893-ICHEC	Biological Removal of Antidiabetic Drug Metformin from Wastewater: Enzymatic Pathways and Process Performance M. Mohammad Hosseini, M. Moghimian Hoosh, F. Kazemi, Z. Ghobadi Nejad, S. Yaghmaei*

12:20-13:00

Break

Environmental Engineering, 13:00-14:20

8	1832-ICHEC	Optimization of a hybrid forward-feed multi-effect evaporation/membrane distillation system for water desalination A. Khademi, A. M. Sahlodin*, A. Raisi
9	1999-ICHEC	Photocatalytic Membranes Based on Polyethylene Terephthalate (PET) and Cellulose Acetate (CA) for Petroleum Emulsion Separation S. Mosazad, S. Allahyari*, N. Rahemi, M. Daryani
10	1630-ICHEC	Effect of Salinity on Biogas Production during Anaerobic Treatment of Textile Dyeing Wastewater in an Up-flow Anaerobic Sludge Blanket Reactor S. Aghamolaei, E. Abdollahzadeh Sharghi*, B. Bonakdarpour, M. Roodkhaneh
11	1640-ICHEC	Green Solvothermal Synthesis and Statistical Optimization of Zn Doped TiO ₂ for Enhanced Photocatalytic Treatment of Petrochemical Wastewater M. Mokhtaria, A. Majnoonb, M. K. Moraveji*

Education in Chemical Engineering, 14:20-14:40

12	1799-ICHEC	Active Learning with Generative Artificial Intelligence in Engineering Education L. Zargarzadeh
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Safety 14:40-15:00

13	1882-ICHEC	Criticality Assessment of a Hydrogen Turbine Supply System Using Fuzzy Failure Modes, Effects, and Criticality Analysis (Fuzzy FMECA) M. Narimani, Y. Younesi Sinaki, S. Baradaran*
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Hall D

Chair: Dr. Sodeifian / Dr. Bashipour

Modeling and Simulation, 8:30-10:30

No.	Paper ID	Paper Title
1	1028-ICHEC	Relative Permeability Upscaling of Waterflooding Using Genetic Algorithm M. H. Behdadfar, M. Assareh*
2	1057-ICHEC	Coarse-Grained CFD-DEM Simulation of a Bubbling Fluidized Bed with Fixed Cell Size Using Adaptive Gaussian Mapping N. Negahdari, R. Khodabandehlou, H. R. Norouzi*
3	1136-ICHEC	Design of Blending Tubes in a Homogenization Silo Using DEM S. Rahbari, H. R. Norouzi*
4	1229-ICHEC	Experimental and CFD Analysis for Predicting Weeping Rate from Centrifuge Tray in a Divided Wall Column M. Hemmati, M. Zivdar1*, T. Zarei, R. Rahimi
5	1378-ICHEC	Data-Driven Modeling and Energy Optimization of a Cement Rotary Kiln Using Artificial Neural Networks M.A. Mokhtari*, M. Keykhaei, S. Mansouri, A. Keikhsravani, H. Pishgouei, M. Nikbakht
6	1374-ICHEC	Numerical Investigation of Heat Transfer and Shear Rate in Plate Heat Exchangers for Yoghurt Cooling N. Jalili, A. Khaghani, M. R. Sarmasti Emami*, A. Siavashi
10:30-11:00		Break
Modeling and Simulation, 11:00-11:40		
7	1392-ICHEC	Boosting NGCC Capacity Factor via Off-Peak Blue Hydrogen Production Using Chemical Looping Water Splitting A. Rastgaran, M. Rahmani*
8	1325-ICHEC	CFD-Based Numerical Investigation and Geometric Optimization of Orifice-Induced Hydrodynamic Cavitation Reactors M. Akrami, N. Naziri*, A. Aliparast
11:40-13:00		Break
Modeling and Simulation, 13:00-15:20		
9	1408-ICHEC	ANN-Based Machine Learning and RSM for Predicting Specific Heat Capacity of CO₂ Absorption Solutions S. Yari, A. Ghaemi *
10	1423-ICHEC	Deep learning approach to predict hydrogen storage in metal-organic frameworks A. H. Sheikhshoei, R. Zabihi*
11	1544-ICHEC	An Accelerated Blood Damage Framework for the FDA Benchmark Centrifugal Blood Pump N. Salahi, M. S. Karimi*
12	1810-ICHEC	Rise Dynamics of Taylor Bubbles: Experimental Measurements and CFD Simulations for Non-Invasive Viscosity Assessment A. Jalilzade, S.H. Hashemabadi*
13	1818-ICHEC	Dynamic study of a methane-fueled solid oxide fuel cell under varying feed conditions S. Maleki, A. M. Sahlodin *

Hall E

Chair: Dr. Zinatloo / Dr. Azimi

Polymer Science and Engineering, 8:30-10:10

No.	Paper ID	Paper Title
1	1200-ICHEC	Synthesis and characterization of silica from rice husk as reinforcing filler in rubber industry Shifteh Shahabi
2	1047-ICHEC	Characterization of Macroporous Chitosan Templates via High Internal Phase Emulsions for Tissue Engineering Applications S.P. Hosseini Largani, Marzieh Sadeghi, H. Salimi-Kenari*, Hamidreza Ghafouri
3	1391-ICHEC	Preparation and characterization of Patam/CMC/CNT nanocomposite double network hydrogel strain sensors M. Ranjbari, H. Nazockdast, S. Tarashi*, F. Goharpey, M. Raddadi
4	2041-ICHEC	Enhancing the vulcanization of chlorosulfonated polyethylene (Hypalon) rubber: preventing reaction stalling using magnesium oxide as an alternative to zinc oxide M. Nazeri, M.R. Pourhossaini*, M. Razavizadeh, M. Khabiri
5	1743-ICHEC	Direct Molecular Bromine Addition to Acrylonitrile and Methyl Methacrylate: A New Brominated Adduct as a Potential Precursor for ATRP Initiator Z. S. Hosseini, M. Abdollahi*

10:10-11:00

Break

Modeling and Simulation, 11:00-12:20

6	2027-ICHEC	Optimal operation and Startup minimization for continuous bio-manufacturing of lovastatin M. Ebrahimi, A. M. Sahlodin*
7	2033-ICHEC	Single Random Forest Surrogate for Biomass Fluidized Bed Gasification R. Shahbazi, M. Rahmani*
8	2054-ICHEC	Unified Material and Process Design for CO ₂ Capture Using a Block-wise PSA Superstructure A. R. Nooshabadi, S. A. Elahi, S. A. H. Hejazi*
9	2090-ICHEC	Impact of Digital Transformation on Abadan Oil Refining Company: Insights from International Experiences M. Chegini, A. Khaksar Manshad*, M. Salehi Pour, M. M. Khesht Chin, H. Zobeidi

12:20-13:00

Break

Thermodynamics, 13:00-14:40

10	1056-ICHEC	Development of the One-Parameter NRTL (OP-NRTL) Model: A Symmetry-Based Approach for Prediction Activity Coefficients in Binary Mixtures S. Kohzadi, A. Haghtalab*
11	1568-ICHEC	Numerically Efficient Molecular Thermodynamic Framework for Droplet-Size Prediction in Microemulsions A. Kordani, L. Zargarzadeh*, F. Islami
12	1791-ICHEC	Gas Hydrate Equilibrium Calculation Using Aqueous Refractive Index Measurements in the Presence of Salts and Organic Inhibitors Zahra Karimi Akhorme, Jafar Javanmardi*, Ali Rasoolzadeh
13	2009-ICHEC	Integrated Stability-Equilibrium Framework for NRTL Parameter Optimization: Cyclohexane + Water + Ethanol V. Safari, N. Nanvakenari, F. Eslami*
14	1809-ICHEC	Comparison of Four Activity Coefficient Models for Description of Vapor-Liquid Equilibrium of Binary Systems Including Biodiesel A. Shojaeian*, F. Taheri Sajed

Hall F

Chair: Dr Tavakoli/Dr Mashayekhan

Separation Process, 8:30-10:30

No.	Paper ID	Paper Title
1	1152-ICHEC	AA/AM/LMA Hydrogel as an Efficient Adsorbent for Methylene Blue Removal M. Noori Keshtkar, A. Mohammadi, P. Rahmani, A. Shojaei*, H. Molavi
2	1195-ICHEC	Effect of Sintering Temperature on the Microstructure and Permeability of Gel-Cast Alumina Ceramic Membranes Containing CaCO₃ J. Ahmadi, J. Ahmadi, C. Falamaki*
3	1213-ICHEC	Energy Saving Evaluation in Ternary Distillation Column Sequences Using Dividing Wall Columns: A HDA Case Study A. Ashkani, N. Gilani*
4	1281-ICHEC	Efficient removal of tetracycline antibiotic from water using Ce-Fum-MOF S. Saeedi , H. Molavi*
5	1591-ICHEC	Novel Approach for Fabricating High-Performance Nanofiltration Membrane via Interfacial Polymerization for Salt Rejection A. Mohamadbeiki, F. Z. Ashtiani*, E. Bonyadi

10:30-11:00

Break

Separation Process, 11:00-12:20

6	1674-ICHEC	Synergistic tuning of gas separation performance in cellulose acetate/polyether block amide membranes via polymer blending N. A. Jahroomi, A.R. Bahrami, A.R. Raisi*
7	1742-ICHEC	Tailoring CO₂ capture efficiency in Pebax1657-based membranes with biodegradable nanochitosan F. Shiri Jafarzadeh, M. Vatani*, A.R. Raisi
8	1755-ICHEC	Life Cycle Assessment of Extractive Distillation for the Separation of Minimum-Boiling Azeotropes M. Alimohammadi, K. Asghari *, P. Eshaghi, M. Zargham Zadeh, A. Hedayat
9	1765-ICHEC	Surface Modification of Polyethersulfone (PES) Nanofiltration Membrane via Pectin and Chitosan-Furosemide Composite Coating for Enhanced Dye Removal Performance F. Norouzi , G. Moradi*, B. Shirvani

12:20-13:00

Break

Separation Process, 13:00-14:40

10	1800-ICHEC	A less-explored membrane combination for improving CO₂/CH₄ and CO₂/N₂ separation efficiency: Sulfonated poly(ether ether ketone) blended with poly(ether imide) A. Adhami, A. Kargari*
11	1807-ICHEC	Surface Modification of Alumina–Mullite Ceramic Membrane Using NiZnFe₂O₄ Nanoparticles for Methylene Blue Removal M. Moharrami , F. Shojaei , M. R. Omidkhah *
12	1886-ICHEC	Bio-inspired Modification of Bentonite Using Beta vulgaris Extract for Enhanced Dye Removal, Anti-fouling, and Antibacterial Performance of PES-based Mixed Matrix Membranes B. Shirvani, S. Dadari, F. Norouzi , G. Moradi*
13	1997-ICHEC	A Newly Designed Rotating Bed System for Batch Adsorption of Methylene Blue: Performance Comparison with a Shaker F. Googerdchian, A. Moheb*, M. Haghshenasfard
14	2057-ICHEC	Fabrication and Gas Separation Performance of a CALF/PEBAX Mixed Matrix Membrane for CO₂/N₂ Separation Z. Kooti, E. Ahmadi*