Nov. 7th 2024			
Registration			
Nov. 8th 2024			
8:20-8:50AM Opening ceremony			ceremony
8:50-9	9:30AM	Plenary talk 1	
9:30-1	0:10AM	Plenar	y talk 2
	10:10-10:25AN	/I Coffee Break	
10:25-12:15AM	Track 1: Basic theory and multiscale simulation	Track 2: Heat transfer enhancement	Track 3: Renewable energy and energy storage
	12:15-14:0	0PM Lunch	
14:00-15:45PM	Track 1: Basic Theory and multiscale simulation	Track 2: Heat transfer enhancement	Track 3: Renewable energy and energy storage
	15:45-16:00PN	// Coffee Break	
16:00-18:40PM	Track 4: Transport phenomena under subsurface	Track 5: Heat and mass transfer	Track 6: Phase change heat transfer
Nov. 9th 2024			
	Nov. 91	th 2024	
8:10-8	Nov. 91 3:50AM		y talk 1
		Plenar	y talk 1 y talk 2
8:50-9	3:50AM	Plenar Plenar	-
8:50-9	3:50AM 9:30AM 0:10AM	Plenar Plenar	y talk 2 y talk 3
8:50-9	3:50AM 9:30AM 0:10AM	Plenar Plenar Plenar	y talk 2
8:50-9 9:30-1	3:50AM 9:30AM 0:10AM 10:10-10:25AN Track 4: Transport phenomena under subsurface	Plenar Plenar Plenar I Coffee Break Track 5: Heat and	y talk 2 y talk 3 Track 6: Phase change heat
8:50-9 9:30-1	3:50AM 9:30AM 0:10AM 10:10-10:25AN Track 4: Transport phenomena under subsurface	Plenar Plenar Plenar I Coffee Break Track 5: Heat and mass transfer	y talk 2 y talk 3 Track 6: Phase change heat
8:50-9 9:30-1 10:25-12:15AM	3:50AM 9:30AM 0:10AM 10:10-10:25AN Track 4: Transport phenomena under subsurface 12:30-14:0 Track 1: Basic Theory and multiscale simulation	Plenar Plenar Plenar O Coffee Break Track 5: Heat and mass transfer OPM Lunch Track 2: Heat transfer	y talk 2 y talk 3 Track 6: Phase change heat transfer Track 3: Renewable energy and energy
8:50-9 9:30-1 10:25-12:15AM	3:50AM 9:30AM 0:10AM 10:10-10:25AN Track 4: Transport phenomena under subsurface 12:30-14:0 Track 1: Basic Theory and multiscale simulation	Plenar Plenar Plenar A Coffee Break Track 5: Heat and mass transfer OPM Lunch Track 2: Heat transfer enhancement	y talk 2 y talk 3 Track 6: Phase change heat transfer Track 3: Renewable energy and energy
8:50-9 9:30-1 10:25-12:15AM 14:00-15:35PM	3:50AM 0:30AM 0:10AM 10:10-10:25AN Track 4: Transport phenomena under subsurface 12:30-14:0 Track 1: Basic Theory and multiscale simulation 15:35-16:00PN Track 4: Transport phenomena under	Plenar Plenar Plenar A Coffee Break Track 5: Heat and mass transfer OPM Lunch Track 2: Heat transfer enhancement A Coffee Break Track 5: Heat and mass transfer	y talk 2 y talk 3 Track 6: Phase change heat transfer Track 3: Renewable energy and energy storage Track 6: Phase change heat transfer
8:50-9 9:30-1 10:25-12:15AM 14:00-15:35PM	3:50AM 0:30AM 0:10AM 10:10-10:25AN Track 4: Transport phenomena under subsurface 12:30-14:0 Track 1: Basic Theory and multiscale simulation 15:35-16:00PN Track 4: Transport phenomena under subsurface 8:30PM Gala dinner	Plenar Plenar Plenar A Coffee Break Track 5: Heat and mass transfer OPM Lunch Track 2: Heat transfer enhancement A Coffee Break Track 5: Heat and mass transfer	y talk 2 y talk 3 Track 6: Phase change heat transfer Track 3: Renewable energy and energy storage Track 6: Phase change heat transfer

Nov. 7th 2024

Registration (Hotel Lobby)

Nov. 8th 2024			
		Opening Ceremony	
8:20-8:50AM (Kaiyuan Hall)		Young Scientist Award Ceremony	
		Group Photo	
		Plenary talk 1	
	0.50.00011	The problems of heat transfer and flow in the	
	8:50-9:30AM	saturated and unsaturated porous media	
	(Kaiyuan Hall)	Wei Liu, Huazhong University of Science and	
		Technology	
		Plenary talk 2	
	9:30-10:10AM	An engineering model for heat transfer in metal-	
	(Kaiyuan Hall)	foam heat sinks	
		Nihad Dukhan, University of Detroit Mercy	
	10:10-10:25AN	1 Coffee Break	
	Track 1: Basic Theory ar		
	Nov. 8th 2024, 10:25-12:11AM, Dazho	ng Hall, Chair: Yan Su, Guobin Zhang	
Time	Author	Title	
10:25-10:50	Yan Su (Keynote talk) University of Macau	Multiscale reynolds number expressed lattice Boltzmann porous medium thermofluid models and applications	
10:50-11:15	Shuai Gong (Keynote talk) ShangHai Jiaotong University	Recent progresses on modeling evaporation and nucleate boiling heat transfer: from nanoscale to macroscale	
11:15-11:35	Guobin Zhang (Invited talk) Xi'an Jiaotong University	Multi-physics heat and mass transfers in porous media of proton exchange membrane fuel cells	
11:35-11:47	Tianyuan Liu (Oral) Northwestern Polytechnical University	Numerical study of lean premixed combustion of n- heptane and air in porous media burners at elevated pressure	
11:47-11:59	Yuhao Tian (Oral) Beihang University	Transport mechanism inside the porous microstructure of thermal protection materials under high temperature reactive conditions	
11:59-12:11	Yanan Li (Oral) Xi'an Jiaotong University	A dynamic model to predict the capillary rise in ordered structures	
	Track 2 : Heat Tran		
N	ov. 8th 2024, 10:25-12:11AM, Changshou	Hall, Chair: Poo Balan Ganesan, Xingjie Ren	
Time	Author	Title	
10:25-10:50	Rong Chen (Keynote talk) Chongqing University	Synergetic photo-thermo hydrogen production by carbon/nitrogen based materials	
10:50-11:15	Poo Balan Ganesan (Keynote talk) University Malaya KL	Innovations in thermal management: compact heat exchangers with open-cell metal foam and thermal interface materials	
11:15-11:35	Xingjie Ren (Invited talk) Shandong University	Study of thermal contact resistance: method, applications and challenges	
11:35-11:47	Stepan A. Mikhailenko (Oral) Tomsk State University	Influence of rotation on convective heat transfer in a differentially-heated porous cubic cavity	
11:47-11:59	Jinyu Fu (Oral) Harbin Institute of Technology	Effect of conduction between contact particles on the radiative effective thermal conductivity of particle-packed beds	
11:59-12:11	Junyu Chen (Oral)	A numerical and experimental investigation of TPMS-	

	Xi'an Jiaotong University	structured cold plates for electronic device cooling
Track 3: Renewable Energy and Energy Storage Nov. 8th 2024, 10:25-12:03AM, Changan Hall, Chair: Qian Fu, Dong Li		
Time	Author	Title
10:25-10:50	TingXian Li (Keynote talk) ShangHai Jiaotong University	High-density thermal energy atorage, utilization & regulation
10:50-11:15	Qian Fu (Keynote talk) Chongqing University	Microenvironment regulation strategies for enhanced electrochemical CO ₂ reduction
11:15-11:27	Cheng Zhu (Oral) Tongji University	Water transport characteristics in gas diffusion layer of proton membrane exchange fuel cell under dynamic loading
11:27-11:39	Lirong Fu (Oral) Hainan University	Three-dimensional performance simulation of PEMFC with metal foam flow channels based on TMPS
11:39-11:51	Chengzhuo Hu (Oral) Xi'an Jiaotong University	Numerical simulation of cold start characteristics of PEMFC in the presence of supercooled water
11:51-12:03	Ruiyuan Zhang (Oral) Xi'an Jiaotong University	Effects of carbon particle overlap on catalyst layer structures and local oxygen transport resistance in proton exchange membrane fuel cells
12:15-14:00PM Lunch (Mercado Café)		

Track 1: Basic Theory and Multiscale Simulation Nov. 8th 2024, 14:00-15:46PM, Dazhong Hall, Chair: Peng Xu, Yutong Mu		
Time	Author	Title
14:00-14:25	Peng Xu (Keynote talk) Zhejiang University of Technology	Applications of fractal geometry in porous media
14:25-14:50	Yasser Mahmoudi Larimi (Keynote talk) The University of Manchester	Physics informed neural network for turbulent flow over porous media
14:50-15:10	Yutong Mu (Invited talk) Xi'an Jiaotong University	Multiscale analysis of hollow porous carbon supports on the cell performance of the catalyst layers in proton exchange membrane fuel cells
15:10-15:22	Shunnan Long (Oral) University of Shanghai for Science and Technology	Development of classification criterion for flow-related simplification in a CDI model
15:22-15:34	Tao Jiang (Oral) Southeast University	Pore-scale simulation of water transport in PEMFC with orderly graded perforation microporous layer
15:34-15:46	Yuhao Lu (Oral) Xi'an Jiaotong University	Modelling of reactive transport processes in porous carbon catalyst layers with different structures
	Track 2 : Heat Trans Nov. 8th 2024, 14:00-15:38PM, Changshou	
Time	Author	Title
14:00-14:25	Kentaro Yaji (Keynote talk) Osaka University	Invitation to topology optimization for heat transfer problems
14:25-14:50	Dahua Shou (Keynote talk) Hong Kong University of Science and Technology	Personalized thermal and moisture management by nature-inspired porous textiles
14:50-15:02	Xiaolong Bi (Oral) Xi'an Jiaotong University	Numerical simulation of thermochemical storage process of fluidized Mg(OH) _z /MgO system

15:02-15:14	Katharina Knapp (Oral) Karlsruhe Institute of Techology	Influence of the strut shape on steady state heat transfer in periodic open cellular structures (POCS)
15:14-15:26	Yuxi Zhu (Oral) Southeast University	A machine learning investigation on the thermal conductivity of Fe-Co bimetallic catalyst
15:26-15:38	Manojkumar Balasubramani (Oral) Shizuoka University	Investigation of shape and rotation of unconsolidated porous media in a channel under forced convection for heat transfer enhancement

Track 3: Renewable Energy and Energy Storage

Nov. 8th 2024, 14:00-15:53PM, Changan Hall, Chair: Menglian Zheng, Ting Mir

Nov. 8th 2024, 14:00-15:53PM, Changan Hall, Chair: Menglian Zheng, Ting Min		
Time	Author	Title
14:00-14:25	XiangLei Liu (Keynote talk) Nanjing University of Aeronautics and Astronautics	Solar-driven greenhouse conversion into syngas via biomimetic porous foam reactors
14:25-14:45	Zhi Liu (Invited talk) Tianjin University	Numerical study on effect of the binder in gas diffusion layer on two-phase flow process
14:45-15:05	Menglian Zheng (Invited talk) ZheJiang University	Capillary pressure-driven porous transport layer design for enhancing bubble detachment in PEM water electrolysis
15:05-15:17	Birlie Birhanu (Oral) School of Engineering RMIT University	Impact of particle diameter on the performance of packed bed thermal energy storage units
15:17-15:29	Ki Jung Kim (Oral) Seoul National University of Science and Technology	Influence of initial water uptake on charging characteristics of zeolite 13X in thermochemical heat storage systems
15:29-15:41	Kaibo An (Oral) Xi'an Jiaotong University	Effects of icing phenomena on oxygen and proton transport in proton exchange membranes

15:45-16:00PM Coffee Break

Track 4: Transport Phenomena Under Subsurface Nov. 8th 2024, 16:00-18:30PM, Dazhong Hall, Chair: Chaozhong Qin, Sida Jia

Time	Author	Title
16:00-16:25	Li-Wu Fan (Keynote talk) ZheJiang University	Investigation of CO ₂ solubility and flooding under reservoir conditions for CO ₂ storage and enhanced oil recovery
16:25-16:50	Chao-Zhong Qin (Keynote talk) Chongqing University	Modeling of flow and transport in multiscale digital rocks
16:50-17:10	Sida Jia (Invited talk) Chongqing University	Retardation factor scaling for contaminant transport in fractured media
17:10-17:30	Lei Zhang (Invited talk) University of Petroleum East China	Experimental study on salt dissolution and precipitation during water/gas injection in salt-bearing cores with CT scanning
17:30-17:42	Guotao Fu (Oral) Zhejiang University	Investigation of the lower pore-throat limit and residual oil formation mechanisms during waterflooding in tight oil reservoir: a case study in Jiyuan Area of Changqing oilfield, China
17:42-17:54	ASIF MEHMOOD (Oral) China University of Petroleum (East China)	Numerical simulation study on the heat recovery of fractured rock underthermal-hydraulic coupling

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17:54-18:06	Beier Chen (Oral) Xi'an Shiyou University	Experimental and numerical simulation study of hot water drive in low-permeability tight oil reservoirs
18:06-18:18	Yongjie Chen (Oral) Chengdu University of Technology	Numerical simulation of heat and mass transfer of CO ₂ in saturated multiliquid-phase porous media
18:18-18:30	Zhonghao Sun (Oral) Xi'an Jiaotong University	Displacement patterns in fractured porous media at various wettability: a microfluidic investigation
	Track 5 : Heat and Nov. 8th 2024, 16:00-18:18PM, Changsh	
Time	Author	Title
16:00-16:25	MengLong Hao (Keynote talk) Southeast University	Topology optimization of a high-performance cold plate operating in the turbulent regime for battery thermal management applications
16:25-16:50	Lin Qiu (Keynote talk) University of Science and Technology Beijing	Local thermal analysis based on scanning thermal microscopy
16:50-17:10	Chunyang Wang (Invited talk) Institute of Engineering Thermophysics, Chinese Academy of Sciences	The anisotropy effect on thermal management of a cavity with unconsolidated porous media
17:10-17:30	Zhuo Zhang (Invited talk) Xi'an Jiaotong University	Research on assembly force and flow field design of fuel cells based on three dimensional multi-physics model
17:30-17:42	Parvez Alam (Oral) Indian Institute of Technology Kanpur	Thermal convection in Darcy-Bénard system: effect of sidewall thermal conductance
17:42-17:54	Jinyue Zhang (Oral) Beihang University, Technical University of Munich	Multi-scale simulation of coupled fluid flow, thermal and heterogeneous chemical reactions in fibrous porous media during ablation
17:54-18:06	Yuhua Li (Oral) Shanghai University	Research on the diffusion characteristics and visualization methods of surfactants in porous media
18:06-18:18	Chao Guo (Oral) Xi'an Jiaotong University	Topology optimization of microreactors for hydrogen production by ammonia catalytic decomposition
	Track 6: Phase Chan Nov. 8th 2024, 16:00-18:37PM, Changai	
Time	Author	Title
16:00-16:25	Xiaoping Yang (Keynote talk) Xi'an Jiaotong University	Enhancement of boiling and evaporation by mutiscale porous structure: From fundamental study to applications
16:25-16:45	Kohei Yuki (Invited talk) Sanyo-Onoda City University	Boiling heat transfer enhancement of immersion cooling in FC-72 using lotus-type porous copper
16:45-17:05	Feifei Qin (Invited talk) Northwestern Polytechnical University	Pore-scale study of multiphase flows and evaporation
17:05-17:25	Chuangyao Zhao (Invited talk) Xi'an University of Architecture and Technology	Flow-boiling in square pipes filled with radially gradient porous media
17:25-17:37	Nadezhda S. Bondareva (Oral) Tomsk State University	Numerical analysis of melting of the PCM embedded in metal foam with graded porosity

17:37-17:49	Teruyuki Kato (Oral) Shizuoka University	Damping harmful temperature fluctuations for an electronic component by using solid-liquid phase change materials assisted with 3D LMF
17:49-18:01	MD SUHAN MIA (Oral) Xian Jiaotong University	Experimental investigation on the pool boiling heat transfer of metal particle-coated porous surface
18:01-18:13	Zihao Xuan (Oral) Xi'an Jiaotong University	A lattice Boltzmann simulation for ice melting process in gas diffusion layer of fuel cells
18:13-18:25	Da Xu (Oral) Southern University of Science and Technology	Machine learning-aided optimization and additive manufacturing of CeO ₂ ceramics for concentrated solar thermochemical fuel production
18:25-18:37	Xinzhu Mou (Oral) Nanjing University of Aeronautics and Astronautics	Numerical study on aerothermal-mechanical properties of transpiration cooling for high pressure turbine vane

	Nov. 9th 2024	
	Plenary talk 1	
8:10-8:50AM	Pore-scale modeling of heat and mass transfer in	
	porous media: challenges and recent progress	
	Moran Wang, Tsinghua University	
	Plenary talk 2	
8:50-9:30AM	Heat transfer in dual-scale porous media	
	Wojciech Lipiński, The Cyprus Institute	
	Plenary talk 3	
	Optimizing two-phase immersion cooling in high	
	performance computing: a confluence of multi-	
9:30-10:10AM	fluid systems and machine learning-based therma	
	prediction models	
	Chakravarthy Balaji, Indian Institute of Technology	
	Madras	
10:10-10:25AM Coffee Break		

Track 4 : Transport Phenomena Under Subsurface
Nov. 9th 2024, 10:25-12:12AM, Dazhong Hall, Chair: Ke Xu, Qingyang Lin

Time	Author	Title
10:25-10:50	Lanlan Jiang (Keynote talk) Dalian University of Technology	Understanding CO ₂ mass transfer properties for de-risking CCS projects
10:50-11:15	Ke XU (Keynote talk) Beijing University	Gas mobility at thermodynamic equilibrium in porous media
11:15-11:35	Qingyang Lin (Invited talk) Zhejiang University	Quantification of morphological and flow characteristics for CO ₂ storage at the pore-scale using a DCGAN-PNM approach
11:35-11:47	Aimad Bouloudenine (Oral) Xi'an Jiaotong University	Perimental study of single/two-phase flow on pressure drop with sand particles
11:48-12:00	Jianan Ge (Oral) Southeast University	Pore scale three-dimensional reconstruction of methane gas- liquid two-phase flow characteristics in porous media
12:00-12:12	Xin Sha (Oral) Xi'an Jiaotong University	Pore-scale study of three-phase dynamic behaviors and displacement processes in three-dimensional porous media

Track 5: Heat and Mass Transfer

Nov. 9th 2024, 10.25-12.11Alvi, Changshou Hall, Chair, Ividualian Officsh, Fu He		
Time	Author	Title
10:25-10:50	Madanan Umesh (Keynote talk) Indian Institute of Technology Kanpur	Addressing the Nusselt number divergence across varied fluid- solid combinations in Darcy-Bénard convection
10:50-11:15	Rui Wu (Keynote talk) Shanghai Jiaotong University	Coupled mass and heat transfer model in porous media under high Knudsen number
11:15-11:35	Pu He (Invited talk) Xi'an Jiaotong University	Application of optimized metal foam in polymer electrolyte membrane fuel cell
11:35-11:47	Naoya Tazawa (Oral) Shizuoka University	Comparison of volume average and pore scale methods for a square cavity with thin vertical porous layer under mixed convection heat transfer
11:47-11:59	Lingran Gu (Oral) Xi'an Jiaotong University	Topology optimization of convective heat transfer in microchannels under different working modes
11:59-12:11	Guangji Sun (Oral) Xi'an Jiaotong University	Enhanced accuracy in PEMFC modeling: evaluating different capillary pressure correlations using a 1+1D approach

		Change Heat Transfer nangan Hall, Chair: Xiao Yan, Yichuan He
Time	Author	Title
10:25-10:50	Ming Jiao (Keynote talk) Shanghai Nuclear Engineering Research and Design Institute Co., LTD.	Experimental investigations of CHF enhancement on porous coatings surface for in-vessel retention strategy
10:50-11:10	Xiao Yan (Invited talk) Chongqing University	Pushing the boundaries of dropwise condensation by regulating the shedding of microdroplets
11:10-11:30	Yichuan He (Invited talk) Dalian University of Technology	Investigation on thermal performance and self-excited pressure fluctuation in two-phase thermosyphon loop with wide range of filling ratios
11:30-11:42	Özgür Bayer (Oral) Middle East Technical University	Effect of fully and partially metal foam integrated pin fin heat sink utilization on thermal performance of a PCM based electronic cooling unit
11:42-11:54	Xuyang.Hu (Oral) Beihang University	Vapor flow and heat transport for hydrogel filled porous media for transpiration cooling: a fast engineering simulation approach
11:54-12:06	Zhuye Jiang (Oral) Xi'an Jiaotong University	Study on enhancement mechanism of saturated pool boiling heat transfer on aluminum-based microstructured surface with R1233zd (E)
12:30-14:00PM Lunch (Mercado Café)		

	Track 1 : Basic Theory and Nov. 9th 2024, 14:00-15:33PM, Dazho	
Time	Author	Title
14:00-14:25	Hui Wang (Keynote talk) Xi'an Jiaotong University	Machine learning assisting intelligent control of heat and mass transfer in porous media
14:25-14:45	Fan Bai (Invited talk) Xi'an Jiaotong University	A self-developed general platform for the 3D multi- physics numerical model of PEM fuel cell
14:45-14:57	Rishabh Malhotra (Oral) College of Engineering Greater Noida	Comprehensive study of air gap membrane distillation: 2D simulation
14:57-15:09	Yong Yang (Oral) Dalian University of Technology	Investigation of coupling mechanism of monduction, convection and radiation for heat transfer process in porous medium based on entransy analysis model
15:09-15:21	Yuqing Shen (Oral) University of Nottingham Ningbo China	Numerical study on gas diffusion in partially connected porous media reconstructed by hierarchical simulated annealing approach
15:21-15:33	Chuangde Zhang (Oral) Xi'an Jiaotong University	Computational microfluidic study of multiphase reactive fow based on lattice Boltzmann method
Nov	Track 2 : Heat Trans v. 9th 2024, 14:00-15:38PM, Changshou Hall	
Time	Author	Title
14:00-14:25	Mikhail A. Sheremet (Keynote talk) Tomsk State University	Application of solid/porous fins for heat transfer enhancement. numerical simulation
14:25-14:50	Zhilong Cheng (Keynote talk) Xi'an Jiaotong University	Graphene aerogels composite phase change materials with anisotropic porous structure and its heat transfer performance
14:50-15:02	Marina S. Astanina (Oral) Tomsk State University	Numerical modeling of thermogravitational convection in a closed enclosure with a porous layer using different boundary conditions

15:02-15:14	Hanwen Zhang (Oral) Universiti Malaya	Analysis of thermal and flow performance in porous medium manifold heat sink
15:14-15:26	Leonardo Bernardini (Oral) University of Pisa	Experimental investigation on heat transfer and pressure drops across a f2ccz lattice structure
15:26-15:38	Rikito Kondo (Oral) Shizuoka University	A quick method for estimation of thermal performance of 3D lattice metal frame in a channel

Track 3: Renewable Energy and Energy Storage

Nov. 9th 2024, 14:00-15:34PM, Changan Hall, Chair: Yang Yang, Wenzhen Fang		
Time	Author	Title
14:00-14:25	Yang Yang (Keynote talk) Chongqing University	Multi-physics modeling of proton exchange membrane water electrolyzer
14:25-14:50	Wenzhen Fang (Keynote talk) Xi'an Jiaotong University	Multiscale modellings on the oxygen transport resistance in PEMFCs
14:50-15:10	Tao Zhang (Invited talk) China University of Petroleum (East China)	Deep learning-aided simulation of multicomponent multiphase fluid flow in the natural hydrogen development
15:10-15:22	Jinyi Liu (Oral) Hainan University	Study on the effect of new electrode structure on the performance of solid oxide fuel cells
15:22-15:34	Lei Xian (Oral) Xi'an Jiaotong University	Enhancing ionomer distribution in hydrogen fuel cell electrodes via carbon support surface functionalization: a molecular dynamics Study

15:35-16:00PM Coffee Break

Track 4: Transport Phenomena Under Subsurface

Nov. 9th 2024, 16:00-17:34PM, Dazhong Hall, Chair: Bowen Lin, Ting Hu		
Time	Author	Title
16:00-16:25	Xiaofan Yang (Keynote talk) Beijing Normal University	An open-source numerical platform for simulating pore- scale reactive transport processes in porous media
16:25-16:50	Bowen Ling (Keynote talk) Institute of Mechanics Chinese Academy of Sciences	Effect of nucleation heterogeneity on mineral precipitation in confined environments
16:50-17:10	Ting Hu (Invited talk) China university of petroleum, Beijing	Development and quantitative characterization of synergies in CO ₂ recovery and storage simulators
17:10-17:22	Qihui Wu (Oral) China University of Petroleum (East China)	CO ₂ -responsive microgels for selective plugging of CO ₂ channeling
17:22-17:34	Zengding Wang (Oral) China University of Petroleum (East China)	Precise determination of minimum miscibility pressure of CO ₂ -hydrocarbon in tight formations: nanofluidics and thermodynamic modeling

	Track 5 : Heat and Nov. 9th 2024, 16:00-17:33PM, Changshot	Mass Transfer u Hall, Chair: Ruming Pan, Jianjun Gou
Time	Author	Title
16:00-16:25	Ruming Pan (Keynote talk) Harbin Institute of Technology	The role of porous media in solid waste treatment and valorization
16:25-16:45	Jianjun Gou (Invited talk) Northwestern Polytechnical University	An inversion-based damage evaluation model with limited sensors for heat transport paths
16:45-16:57	Xiangdong Xing (Oral) Exploration and Development Research Institute, Shengli Oilfield Company	CO ₂ diffusion in shale porous media based on pore network method
16:57-17:09	Chao Fang (Oral) The Hong Kong University of Science and Technology (Guangzhou)	Thermodynamics and dynamics of thin brine films confined between oil and rock interfaces
17:09-17:21	Bowen Shi (Oral) Chongqing University	Synergistic effect of elasticity and wettability on enhanced residual oil recovery in viscoelastic polymer flooding: a simulation study
17:21-17:33	Guorui Zhao (Oral) Xi'an Jiaotong University	Data-driven optimization of oxygen and water transport
	Track 6 : Phase Chan Nov. 9th 2024, 16:00-17:41PM, Changan	
		Hall, Chair: Linlin Fei, Wenjing Zhou
Time	Author	Title
Time 16:00-16:25		
	Author Linlin Fei (Keynote talk)	Title Pore-scale study on evaporation in porous media
16:00-16:25	Author Linlin Fei (Keynote talk) Xi'an Jiaotong University Wenjing Zhou (Invited talk)	Title Pore-scale study on evaporation in porous media Molecular dynamics of bubble nucleation promoted by
16:00-16:25 16:25-16:45	Author Linlin Fei (Keynote talk) Xi'an Jiaotong University Wenjing Zhou (Invited talk) Xi'an Jiaotong University Dong Li (Invited talk)	Title Pore-scale study on evaporation in porous media Molecular dynamics of bubble nucleation promoted by acousto-thermal effects on nanostructured surfaces Lattice Boltzmann model for solid-liquid phase change
16:00-16:25 16:25-16:45 16:45-17:05	Author Linlin Fei (Keynote talk) Xi'an Jiaotong University Wenjing Zhou (Invited talk) Xi'an Jiaotong University Dong Li (Invited talk) Xi'an Jiaotong University Ye Tian (Oral)	Title Pore-scale study on evaporation in porous media Molecular dynamics of bubble nucleation promoted by acousto-thermal effects on nanostructured surfaces Lattice Boltzmann model for solid-liquid phase change from pore scale to REV scale Condensation on microstructured surfaces under coron

18:30PM Gala dinner and closing ceremony (Kaiyuan Hall)

Nov. 10th 2024

Technical tour

9:00-11:30AM: Innovation harbor of Xi'an Jiaotong University

(Lab of fuel cells, Lab of low-carbon data center, Lab of heat and mass transfer in porous media, Lab of Energy storage, Lab of heat and mass transfer...)