

InterPore2024

Monday, 13 May 2024

MS01: 1.3 (17:00 - 18:00)

time	[id] title	presenter
17:00	[458] Solar energy storage in saline aquifers: Insights from coupled hydro-thermo-mechanical modeling	Mr ZHONG, Kunpeng
17:15	[568] Towards an open-source digital twin for subsurface geothermal systems: a proof-of-concept study for a doublet system	Dr SONG, Guofeng
17:30	[666] Insight on the stability of gas hydrate in montmorillonite slits by molecular dynamics simulations	Dr CHEN, Jie
17:45	[727] Microfluidic Study of Formation, Dissociation, and Dissolution Dynamics of Gas Hydrates in Porous Media	YU, Wei

Tuesday, 14 May 2024

MS01: 2.1 (10:55 - 11:55)

time	[id] title	presenter
10:55	[790] Evaluating the impact of Hysteresis and Heterogeneity on Hydrogen Storage Performance in Saline Aquifers	Mr MOSALLANEZHAD, Abdolali
11:10	[528] Numerical simulation of depleted and cushion gases impacts on hydrogen storage in a depleted gas reservoir	YANG, Yawen
11:25	[280] Pore Storage for Green Hydrogen: A Sensitivity Analysis of Geological Parameters at Ketzin Anticline (Germany)	DÖPP, Lea
11:40	[94] Performance Study of Underground Hydrogen Storage in a Saline Aquifer for a Prospective Hydrogen Pore Storage Site in Northeast Germany	Dr ECKEL, Anna-Maria

MS01: 2.2 (12:00 - 13:00)

time	[id] title	presenter
12:00	[42] Realistic evaluation of prototypical porous materials for carbon capture	GUO, Meishan
12:15	[877] Effect of reactive impurities in CO ₂ gas storage in carbonate reservoirs	FEILBERG, Karen
12:30	[541] Effect of dissolution and heterogeneity on supercritical CO ₂ invasion in porous media: an experimental study using X-ray micro-computed tomographic imaging	HUANG, Ruotong
12:45	[744] Pore-Scale Dynamics in Carbonate Reservoirs: Understanding Heterogeneity's Influence on CO ₂ Storage in Indiana Limestone	DARRAJ, Nihal

MS01: 2.3 (14:00 - 15:30)

time	[id] title	presenter
14:00	[833] Investigation of the effect of capillary number, working pressure and hysteresis on hydrogen storage and recovery efficiency using a CFD approach	Prof. MAHANI, Hassan
14:15	[251] The Impact of Water Saturation on Hydrogen Adsorption in Clay-rich Caprocks	MASOUDI, Mohammad
14:30	[780] Ostwald Ripening Leads to Less Hysteresis during Hydrogen Injection and Withdrawal: A Pore-Scale Imaging Study	BLUNT, Martin
14:45	[284] Investigating multiphase flow dynamics in rock fractures via XCT imaging for hydrogen storage optimization	MANOORKAR, Sojwal
15:00	[296] Microstructural heterogeneity and alteration of reservoir sandstones with experimental exposure to hydrogen	BRAID, Heather
15:15	[123] Pore-scale Diffusive Mixing Between Hydrogen and Carbon Dioxide: Implications for Underground Hydrogen Storage	Dr WANG, Zhe

Wednesday, 15 May 2024

MS01: 3.1 (10:55 - 11:55)

time	[id] title	presenter
10:55	[32] CO ₂ -enhanced shale gas recovery – Monotonic and cyclic injection	LIU, Qi
11:10	[352] OpenWorkFlow - Development of an open-source synthesis-platform for safety investigations in the site selection process	KOLDITZ, Olaf
11:25	[788] Quantifying the multiphase CO ₂ -brine transport in basaltic rocks	Dr TIAN, Jianwei
11:40	[26] Visualisation of [11C]CO ₂ storage in coal with positron emission tomography imaging	JING, YU

MS01: 3.2 (12:00 - 13:00)

time	[id] title	presenter
12:00	[890] CO ₂ storage capacity in saline aquifers and uncertainty sensitivity analysis	HAN, Lishijia
12:15	[452] Parallel numerical simulation analysis of the stress evolution within the full synthetic field model during CO ₂ geological storage	YU, Enyi
12:30	[720] Feasibility of injecting CO ₂ into low-permeability gas reservoirs to enhance gas recovery	Dr ZHAO, Ermeng
12:45	[923] Evaluating the Material, Energy, Environmental, and Economic Aspects of Pan-European CCS Infrastructure	EFTEKHARI, Ali

Thursday, 16 May 2024

MS01: 4.1 (09:05 - 10:20)

time	[id] title	presenter
09:05	[124] Pore-scale simulation of H ₂ -brine system relevant for underground hydrogen storage: A lattice Boltzmann Investigation	Dr WANG, Yuhang
09:20	[772] Methods for Hydrogen Storage Characterization in Porous Substrates	ALVARADO, Vladimir
09:35	[144] Pore-Scale Modeling of Hydrogen and Cushion Gas Relative Permeability to Brine in geological hydrogen storage	CHEREMISIN, Alexey
09:50	[598] H ₂ flow and displacement in sandstone rocks: evaluating experimental results against pore-network model	JANGDA, Zaid
10:05	[395] Production dynamic prediction and injection production efficiency optimization simulation of depleted gas storage reservoirs	Mr FENG, Hao

MS01: 4.2 (11:50 - 12:50)

time	[id] title	presenter
11:50	[8] Design of viscosified CO ₂ for carbon storage in saline aquifers by continuum-scale imaging and modeling	Dr DING, Boxin
12:05	[445] Critical Thresholds for CO ₂ Foam Generation in Homogeneous Porous Media	Dr TANG, Jinyu
12:20	[28] Effects of Thermal Cycling on Sealing Ability of Sealant Surrounding Steel Pipe for CCS Applications	LI, Kai
12:35	[303] Water Thin Films on Kaolinite Gibbsite and Edge Surfaces and Their Effects on Surface Wettability in Relation to Geological Carbon Sequestration	Mr XIE, Minjunshi

MS01: 4.3 (13:50 - 15:05)

time	[id] title	presenter
13:50	[662] Minimum miscibility pressure determination in confined nanopores considering the presence of the second liquid phase	CHEN, Zhuo
14:05	[509] A Bayesian deep-learning approach to characterize CO ₂ -brine saturation functions from experimental data	ANDRIANOV, Nikolai
14:20	[50] Optimization of porous structures via machine learning for solar thermochemical fuel production	Dr XU, Da
14:35	[88] Structure and Properties of 316L Sinter Paper for Use as Gas Diffusion Layer in PEM Fuel Cell Applications	ANDERSEN, Olaf
14:50	[97] Dynamic separation of CO ₂ from N ₂ using alkali-metal forms of nanosized chabazite	Dr GHOJAVAND, Sajjad