

InterPore2023

Monday, 22 May 2023

MS01: 1.1 (10:50 - 12:35)

| time | [id] title | presenter |
|-------|---|----------------------|
| 10:50 | [509] Effect of rock heterogeneity on pore-scale fluid displacement in a layered sandstone for underground hydrogen storage | JANGDA, Zaid |
| 11:05 | [1000] Ostwald Ripening Investigation using 3D Micro-CT Imaging | Mr DOKHON, Waleed |
| 11:20 | [94] Energy Storage in Unconventional Formations | Ms SAMARA, Hanin |
| 11:35 | [261] Impact of capillary pressure hysteresis on Underground Hydrogen Storage | NAZARI, Farzaneh |
| 11:50 | [957] Visualizing the Effect of Gravity on Hydrogen Redistribution at Pore Scale | Dr SHAHROKHI, Omid |
| 12:05 | [871] Trapping, Hysteresis and Ostwald Ripening in Hydrogen Storage: A Pore-Scale Imaging Study | Ms GOODARZI, Sepideh |
| 12:20 | [751] Microfluidic hydrogen storage capacity and residual trapping during cyclic injections | LYSYY, Maksim |

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

| time | [id] title | presenter |
|-------|---|-----------------------------|
| 17:00 | [753] Underground hydrogen storage and in-situ gas conversion: macroscopic investigation on reactive transport mechanisms | STIEDL, Gerald |
| 17:15 | [264] Geochemical reactions of iron oxides with hydrogen in the porespace of sandstones: Processes, kinetics & limitations of the extent of reaction. | OSTERTAG-HENNING, Christian |
| 17:30 | [592] Impact of microbial activity on hydrogen transport in porous reservoirs across scales | Dr BOON, Maartje |
| 17:45 | [896] Pore-scale observations of hydrogen trapping and migration in porous rock | Prof. ZHANG, Yihuai |

Tuesday, 23 May 2023

MS01: 2.1 (09:30 - 10:30)

| time | [id] title | presenter |
|-------|--|-------------------|
| 09:30 | [201] On the conceptual role of permeability contrasts within sandstone utilised for underground hydrogen storage | SMITH, Doug |
| 09:45 | [280] Salinity gradients and salt precipitation due to hydrogen injection in saline aquifers and reservoirs | KALYONCU, Gulce |
| 10:00 | [855] Caprock sealing capacity for underground hydrogen storage; Kimmeridge Clay | SLABON, Lubica |
| 10:15 | [681] Impact of hydrogen trapping in underground porous formations on recovery efficiencies during interseasonal storage injection and withdrawal cycles | EDLMANN, Katriona |

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

| time | [id] title | presenter |
|-------|--|------------------------------|
| 12:00 | [30] The Impact of Capillary Heterogeneity on CO ₂ Plume Migration at the Endurance CCS Target Site in the UK – A Core To Field Scale Study | WENCK, Nele |
| 12:15 | [67] Experimental study of the sealing properties of cement plug during the early age | NGOUAMBA, Elie |
| 12:30 | [78] Mineral Dissolution on Geological Carbon Storage in Carbonates: A Microcalorimetric Study | Dr COBOS, Jacquelin |
| 12:45 | [23] On the modelling of Joule-Thomson Effects: Analytical and Numerical Formulations | Dr GONCALVES MACHADO, Cintia |

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

| time | [id] title | presenter |
|-------|--|------------------------|
| 14:15 | [938] Experimental investigation of CO ₂ dissolution in Ca ²⁺ rich aquifer with precipitation reaction | ZHENG, Shuai |
| 14:30 | [385] Management of salt precipitation for large-scale CO ₂ storage projects | GASDA, Sarah |
| 14:45 | [547] Sensitivity Analysis of CO ₂ Mineralization Trapping during CO ₂ Sequestration | BELLO, Ayomikun |
| 15:00 | [269] Gas trapping dynamics in heterogeneous sandstones imaged using synchrotron time-lapse tomography. | HARRIS, Catrin |
| 15:15 | [147] 3D X-Ray Visualization of Rayleigh-Bénard Instability in a Porous Medium | Prof. SUEKANE, Tetsuya |

Wednesday, 24 May 2023

MS01: 3.1 (09:30 - 10:30)

| time | [id] title | presenter |
|-------|---|------------------------|
| 09:30 | [459] Understanding the impact of carbon mineralisation on the flow properties of basalts | Dr STAVROPOULOU, Eleni |
| 09:45 | [467] Insights into safe CO ₂ injection and storage scenarios in tight chalk reservoir samples | Dr FEILBERG, Karen |
| 10:00 | [489] Effects of Thermal Shocks on Cement for CCS under Confined and Unconfined Conditions | Dr LI, Kai |
| 10:15 | [505] Injectivity losses in sandstones during CO ₂ hydrates formation | Mr MASCLE, Matthieu |

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

| time | [id] title | presenter |
|-------|--|----------------------------|
| 12:00 | [514] Experimental measurements on caprock CO ₂ -water wettability at reservoir pressure and temperature | Prof. ESPINOZA, D. Nicolas |
| 12:15 | [1037] Insights into sandstone wettability alteration during cyclic scCO ₂ -brine injections | HERRING, Anna |
| 12:30 | [662] The effect of mixed convection and hydrodynamic dispersion on CO ₂ dissolution in saline aquifers | ROSENZWEIG, Ravid |
| 12:45 | [687] A robust and efficient deep-learning-based surrogate model for CO ₂ storage in deep saline aquifers | Ms ZHAO, Mengjie |

MS01: 3.3 (14:15 - 15:30)

| time | [id] title | presenter |
|-------|---|-------------------|
| 14:15 | [703] CT visualization of the CO ₂ degassing process in porous media | BOEIJE, Chris |
| 14:30 | [774] A micro-scale study of CO ₂ mobility control characteristics of a green foam in porous media | ZHOU, Tongke |
| 14:45 | [809] Calibration curve generation for the use of Xenon as a pressure indicator in porous media using micro computed tomography | Mr WILLEMSZ, Mark |
| 15:00 | [833] Influence of Capillarity on Salt Precipitation during Primary CO ₂ -Brine Displacement | JAMMERNEGG, Boris |

Thursday, 25 May 2023

MS01: 4.1 (09:15 - 10:45)

| time | [id] title | presenter |
|-------|---|----------------------------|
| 09:15 | [608] Multi-scale and dynamic imaging of shales and mudstone: increasing understanding of sealing ability for sub-surface storage | MA, Lin |
| 09:30 | [870] Microfluidic Study of CO ₂ Dissolution Dynamics under Geological Sequestration Conditions | Dr YU, Wei |
| 09:45 | [887] In Situ Imaging of Dynamic Processes in Chalk | Mr RASMUSSEN, Peter Winkel |
| 10:00 | [937] Mineral Carbonation Sensitivity to Hydrogeologic Heterogeneity of Basaltic Aquifers | AWOLAYO, Adedapo |
| 10:15 | [946] Time-lapse imaging of fine particle movement in porous materials | Ms SHI, CHENZI |
| 10:30 | [432] Properties of restructuring porous media for thermochemical energy storage | GOLLSCH, Marie |

MS01: 4.2 (14:00 - 15:30)

| time | [id] title | presenter |
|-------|---|----------------------|
| 14:00 | [114] Water vapor transport in porous salt hydrate particles in view of energy storage | AARTS, Joey |
| 14:15 | [356] he moisture and temperature evolution in a zeolite heat storage reactor during cycling: an NMR study | Dr PEL, Leo |
| 14:30 | [289] Engineering ordered porous structure with direct additive-manufacturing approach for solar thermochemical fuel production | Dr XU, Da |
| 14:45 | [579] An image-based sphere insertion method for porous media drainage simulations with gravity | Mr CHADWICK, Eric A. |
| 15:00 | [701] Identification and understanding of colloidal destabilization mechanisms in geothermal processes | FLEURY, Marc |
| 15:15 | [795] Fracture permeability evolution as a result of geochemical granite alteration in geothermal systems | HARPERS, Nick |