OS17: Supercritical Fluid

November 10, 2022
CON-1

OS17-1
11:00-11:40
Drag Force, Heat Transfer, and Porous Structure Behavior of Particles with Stefan Flow in the Supercritical Water *(Invited)*
Hui Jin, Yingdong Wang, Chao Fan (Xi'an Jiaotong University, China)

OS17-2
13:10-13:30
Preliminary Modeling and Analysis of Supercritical CO_2 Heat Transfer Flow in Porous Media on-Chip: Effect of Inflow Conditions and Heat Input
Mengshuai Chen, Lin Chen (Chinese Academy of Sciences / University of Chinese Academy of Sciences, China)

OS17-3
13:30-13:50
Impact of Capillary and Viscous Forces on Distinct Regimes of sCO_2 / Water Displacement in Heterogeneous Micromodels
Karim Ragui (Chinese Academy of Sciences, China), Lin Chen (Chinese Academy of Sciences / University of Chinese Academy of Sciences, China), Yuki Kanda, Atsuki Komiya (Tohoku University, Japan)

OS17-4
13:50-14:10
Endothermic Characterization on Hydrocarbon Fuel under Supercritical State
Tatsushi Isono (Japan Aerospace Exploration Agency, Japan), Takuto Miyaura (Tohoku University, Japan), Yu Daimon, Takuo Onodera, Sadatake Tomioka (Japan Aerospace Exploration Agency, Japan)

OS17-5
14:10-14:30
Hydrogen Production from Formic Acid Decomposition in Gas Phase and Supercritical Water: A Comparative Kinetic Study
Guoxing Li, Hao Chen (Chang'an University, China)

OS17-6
14:50-15:10
Visualization of Acetone Diffusion in Highly Pressurized CO_2 using Phase-shifting Interferometer
Ryuhi Mukai, Yuki Kanda (Tohoku University, Japan), Yingxue Hu (Xi'an Jiaotong University, China), Lin Chen (Chinese Academy of Sciences, China), Atsuki Komiya (Tohoku University, Japan)

OS17-7
15:10-15:30
Dynamic Behaviors of Near-critical CO_2 Fluid under Confinement Effect of a Nano-scale SiO_2 Channel
Zi-Yu Liu (Chinese Academy of Sciences, China), Lin Chen (Chinese Academy of Sciences / University of Chinese Academy of Sciences, China)

OS17-8
15:30-15:50
Explosive Breakup and Evolution of the Gas Layer around a Pulse-Heated Microwire in Sub- and Supercritical CO_2
Gaoyuan Wang, Zhan-Chao Hu (Sun Yat-sen University, China)