



XVII ICC
ISTANBUL 2022
25 -29 JULY



ICC 2022 DETAILED PROGRAM

25 July 2022, Monday

TS02 Nanoporous fiborous clays

Convener: Yuan, P., Aranda, P., Lazzara, G., Thill, A., Liu, M., Pasbakhsh, P.

10:00 PHY-1310-Morphological features of halloysite nanotubes (HNT's) as revealed by various microscopies

Nia Gray-Wannell, Pablo Cubillas, Zabeada Aslam, Peter J Holliman, Hugh Christopher Greenwell, Rik Brydson, Evelyne Delbos, Laura-Jane Strachan, Martin Fuller, Stephen Hillier

10:15 PHY -1206-Two-dimensional water in halloysite nanotubes: structure and dynamics from neutron experiments

Aasim Shaffi, Nia Gray-Wannell, Tom Headen, Sanghamitra Mukhopadhyay, Andrew Seel, Stephen Hillier, Neal Skipper

10:30 VRT-1272-The prediction and modification of the surface area and pore volume of natural halloysite nanotubes

Fujin Li, Yicheng Hua, Liangjie Fu, Tianyu Liu, Jie Zhang, Huaming Yang

10:45 PHY-1116-Vibrational study of the halloysite-(10Å) to -(7Å) transition

Eirini Siranidi, Georgios D. Chryssikos, Stephen Hillier

TS02 Nanoporous fiborous clays

Convener: Yuan, P., Aranda, P., Lazzara, G., Thill, A., Liu, M., Pasbakhsh, P.

11:15 PHY-1039-Chemical modification of clay minerals as a versatile tool to improve their properties

Marina Massaro, Maria Laura Alfieri, Giuseppe Cavallaro, Giuseppe Lazzara, Rita Sánchez-Espejo, César Viseras Iborra, Serena Riela

11:30 VRT-1079-Photochromism of spiropyran/merocyanine in halloysite

Nattapat (Nut) Leelaphattharaphan and Makoto Ogawa

11:45 PHY-1123-Effect of alkaline pretreatment on the functionalization of Halloysite Nanotubes: an experimental and computational study

Lorenzo Lisuzzo, Chiara Ferlito, Francesco Ferrante, Giuseppe Cavallaro, Giuseppe Lazzara, Dario Duca

12:00 VRT-1279-Partial rehydration of tubular halloysite (7 Å) immersed in La(NO₃)₃ solution for 3 years

Junming Zhou, Mengyuan Li, Peng Yuan, Yun Li, Hongmei Liu, Wenxiao Fan, Dong Liu¹, Huan Zhang



XVII ICC
ISTANBUL 2022
25 -29 JULY



TS02 Nanoporous fiborous clays

Convener: Yuan, P., Aranda, P., Lazzara, G., Thill, A., Liu, M., Pasbakhsh, P.

- 13:15 VRT-1282-Functionalized halloysite nanotubes-supported bimetallic Pt-Au alloy nanoparticles for highly efficient and selective oxidation of 5-hydroxymethylfurfural to 2,5-furandicarboxylic acid**
Xuemin Zhong, Peng Yuan, Yanfu Wei, Dong Liu, Dusan Losic, Mengyuan Li
- 13:30 VRT -1262-Adsorption of iodine anions by halloysite and halloysite/Ag2O nanocomposites**
Wenbin Yu, Quan Wan, Daoyong Tan, Zonghua Qin, Shuguang Yang, Xin Nie
- 13:45 VRT-1064-Preparation of wax microparticles stabilized by halloysite nanotubes: a versatile material for restoration of cultural heritage**
Giuseppe Cavallaro, Lorenzo Lisuzzo, Maria Rita Caruso, Giuseppe Lazzara
- 14:00 PHY-1061-Reinforcement and protective coating of natural fibers by biopolymer/halloysite nanotubes mixtures**
Giuseppe Cavallaro, Maria Rita Caruso, Stefana Milioto, Giuseppe Lazzara
- 14:15 VRT-1293-Effects of precalcination and phosphoric acid concentration on the microstructure and mechanical properties of acid-activated halloysite-based geopolymer**
Baifa Zhang, Haozhe Guo, Peng Yuan, Liangiang Deng
- 14:30 PHY-1124-New hybrid clay-based geopolymers with beeswax and halloysite stabilized microparticles**
Martina Maria Calvino, Giuseppe Cavallaro, Giuseppe Lazzara, Lorenzo Lisuzzo, Stefana Milioto

26 July 2022, Tuesday

TS02 Nanoporous fiborous clays

Convener: Yuan, P., Aranda, P., Lazzara, G., Thill, A., Liu, M., Pasbakhsh, P.

- 9:45 NA-1278-Halloysite nanotubes for long-term biological concrete self-healing**
Mohammad Fahimizadeh, Pooria Pasbakhsh, Joash Tan Ban Lee, Lee Sui Mae, R.K. Singh Raman
- 10:00 PHY-1098-Tubular clay materials: design and orientation distribution function study**
Mohcin Akri, Fabien Hubert, Eric Ferrage, Céline Mariette, Erwan Paineau, Stéphan Rouzière and Pascale Launois



XVII ICC
ISTANBUL 2022
25 -29 JULY



10:15 VRT-1201-Sonic and electric responsiveness of imogolite nanotubes

Kazuhiro Shikinaka

10:30 PHY-1062-Synthesis and Characterization of Ti Containing Aluminogermanate Imogolite Nanotubes for Photocatalytic Hydrogen Production from Water

Yassine NACIRI, Mohamed Nawfal GHAZZAL, Erwan PAINEAU

TS02 Nanoporous fibrous clays

Convener: *Yuan, P., Aranda, P., Lazzara, G., Thill, A., Liu, M., Pasbakhsh, P.*

13:00 VRT-1250-Influence of indigo-hydroxyl interactions on the properties of sepiolite-based Maya blue pigment

Li Li, Guanzheng Zhuang, Mengyuan Li, Peng Yuan

13:15 VRT-1225-Spectroscopic behavior of an anionic dye in aqueous colloidal dispersions of smectites and sepiolite

Teruyuki Nakato, Yoshiki Kawanami, Keisuke Taninaka, Emiko Mouri

13:30 VRT-1043-Sepiolite- rosemary oil combination as an environmentally oriented insecticide

Giora Rytwo, Tamir Kramer, Lotem Azoulay, Liora Shaltiel-Harpaz

13:45 PHY-1047-Nanostructured materials based on fibrous clays as fillers of improved proton-conducting membranes for fuel-cell applications

Noura Thmaini, Khaled Charradi, Zakarya Ahmed, Radhouane Chtourou, Pilar Aranda

14:00 VRT-1328-Insight into the defective sites of TiO₂/sepiolite composite on formaldehyde removal and H₂ evolution

Xiaolong Hu, Junying Song, Shuilin Zheng, Zhiming Sun, Chunquan Li

TS02 Nanoporous fibrous clays

Convener: *Yuan, P., Aranda, P., Lazzara, G., Thill, A., Liu, M., Pasbakhsh, P.*

14:30 VRT-1230-Modification strategy of structure and properties of Allophane

Shun Wang, Peng Yuan, Peixin Du, Howard Wang, Dong Liu

14:45 PHY-1317-(Mg,Co)₃Si₂O₅(OH)₄ phyllosilicate nanoscrolls: Towards single-walled chrysotile analog

Ekaterina Khrapova, Andrei Krasilin

15:00 VRT-1069-Acceleration of the one-pot dehydrogenation of D-glucose to 2-keto-D-gluconate in aqueous amino acid via hydrated stacked clay nanosheets

Katsunori Nakase, Tomohiko Okada