

**Česká společnost pro výzkum a využití jílu
ve spolupráci s Katedrou chemické fyziky a optiky
MFF UK**

Vás zve
na jarní seminář, který se bude konat
ve čtvrtek dne 12.05.2016 v 10:45 hod.
v posluchárně M2 v budově Matematicko-fyzikální fakulty,
Ke Karlovu 3, 121 16 Praha 2

Program:
Dimitrios Papoulis
University of Patras, Greece
**CLAY-BASED NANOCOMPOSITES
POSSIBILITIES AND LIMITATIONS**

Konstantinos Nikolakopoulos
University of Patras, Greece
**UNMANNED AERIAL VEHICLES FOR
GEOLOGICAL AND GEOARCHAEOLOGICAL
APPLICATIONS**

Těšíme se na Vaši účast.
S přátelským pozdravem
RNDr. Miroslav Pospíšil, Ph.D.
za

Českou společnost pro výzkum a využití jílu
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CLAY-BASED NANOCOMPOSITES POSSIBILITIES AND LIMITATIONS

Composites that at least one dimension of the dispersed particles is in the nanometer range (1-100nm) have been shown over the last 20-25 years to afford remarkable property enhancements relative to conventionally-scaled composites and are called nanocomposites.

Several reviews on degradation of organic and inorganic pollutants as well as the use of clay minerals in modified drug delivery systems have been published in the last decades. This presentation would focus only on the very recent developments in the use of clay minerals in decomposing NO_x gas, organic pollutants and volatile organic compounds (VOCs). Additionally the use of halloysite tubes as modified drug delivery systems will also be discussed.

UNMANNED AERIAL VEHICLES FOR GEOLOGICAL AND GEOARCHAEOLOGICAL APPLICATIONS

Current advancements in the technology behind Unmanned Aerial Vehicles (UAVs), in accordance with the consecutive increase in affordability of such devices and the availability of photogrammetric software, makes their use for large scale land mapping more and more popular. With the UAVs being used for mapping, the problems of increased costs, time consumption and the possible accessibility problems -due to steep terrain-, are all solved at once. Three different cases of the UAV use will be presented: An open pit limestone mine mapping, a landslide monitoring and an archaeological site precise mapping.