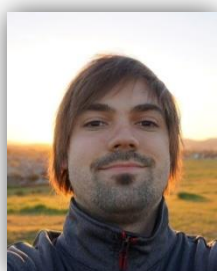


# Furukawa Group SEMINAR

## Negative Gas Adsorption in Mesoporous Metal-Organic Frameworks



Mr. Simon Krause  
Technische Universität Dresden

Friday April 6<sup>th</sup>, 2018 16:30-18:00  
Kyoto University KUIAS (iCeMS Main Building)  
2F Seminar Room (#A207)

### Abstract:

In 2016 we discovered a new adsorption phenomenon namely Negative Gas Adsorption (NGA) in the mesoporous MOF DUT-49 which is the origin of an out-of-equilibrium structural transition that results in release of large amount of gas previously adsorbed in the pores of the MOF. This talk will aim to introduce and rationalize NGA by several in situ techniques and furthermore define the impact of crystal size distribution, adsorption temperature and porosity on the transition. At the end a few ideas towards achieving NGA in other porous materials will be provided and open for discussion.

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