

1st IMS-FHI Symposium: “Emerging Techniques of Scanning Probe Microscopy”

Scanning probe microscopy (SPM) has developed a core method in nanoscale science and technology. Its application is now used in a wide range of research fields including physics, chemistry, biology and medical science. The advancement of SPM technologies has also cultivated interdisciplinary areas and will further expand the applications. In this joint symposium, we discuss the latest development and perspective of SPM technologies including low temperature experiments, ambient near-field optical microscopy, and electrochemical investigation.

Program

12.7.2021 (Day One)

15:55:

Takashi Kumagai

“Opening remarks”

16:00-16:40 (Japan), 9:00-9:40 (Germany):

Borja Cirera (Fritz Haber Institute)

“Characterization of nanocarbon materials using STM/AFM/TERS”

16:40-17:20 (Japan), 9:40-10:20 (Germany):

Taketoshi Minato (Institute for Molecular Science)

“Electrode/Electrolyte Interface Analyzed by Scanning Probe Microscopy”

17:20-18:00 (Japan), 10:20-11:00 (Germany):

Tomoko Shimizu (Keio University, Japan)

“How to bridge the “materials gap” in high resolution AFM/STM?”

13.7.2021 (Day Two)

16:00-16:40 (Japan), 9:00-9:40 (Germany):

Akitoshi Shiotari (FHI)

“Reaction and mechanical switch of nanographene molecules controlled by atomic force microscopy”

16:40-17:20 (Japan), 9:40-10:20 (Germany):

Chi Chen (Research Center for Applied Sciences, Academia Sinica, Taiwan)

“Near-field optics: from the viewpoint of scanning probe microscopy”

17:20-18:00 (Japan), 10:20-11:00 (Germany):

Jun Nishida (Institute for Molecular Science)

“Ultrafast nano-imaging of polaron dynamics and coupling in a lead halide perovskite”