**P2-P001** Time: June 6 17:00-18:30

## Study of Possible Cometary Particles for the Rosetta Mission

# Keiko Nakamura[1], Wolfgang Kloeck[2], Jens Romstedt[3], Ansger Greshake[4], Torsten Grund[5], Marco Wiegand[6], Bernhard Basnar[7]

[1] Earth and Planetary Sci., Kobe Univ, [2] Inst. of Geology, Halle Univ., [3] ESA,ESTEC, [4] Berlin Natural History Museum, [5] Planetary Sci., Univ. of Muenster, [6] Microstructure Physics, Max Planck Inst., [7] Analytical Chem., Inst.Tech., Wien

The cometary mission Rosetta by ESA will rendezvous with comet Wirtanen and study its nucleus and environment. MIDAS – Micro Imaging Dust Analysis System- is one of the instruments onboard Rosetta imaging cometary dust with atomic force microscope (AFM) for the first time in space. In order to interpret the resulting MIDAS/AFM images a database of morphologies and correlated internal textures of various comet analogue materials is being developed. Experiments on artificial materials and especially on interplanetary dust particles (IDPs) are under way. IDPs obtained from the NASA are first imaged in a field emission SEM, subsequently studied with an AFM and finally sectioned for TEM investigations. This is a report of our continuing study of 30 pieces of IDPs.







