

## The evaluation of the contamination on the EUV reflectance for the SPRINT-A/EXCEED mission

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An Earth-orbiting small satellite 'EXtreme ultraviolet spectroSCOpe for Exospheric Dynamics' (EXCEED) which will be launched in 2013 is now under development. EXCEED will observe the atmosphere and plasmas around various planets in our solar system. The optical instrument consists of entrance mirror, grating and microchannel plates. For this mission, it is essential that the detection efficiency must be very high in order to detect the faint signals from targets.

In extreme ultraviolet spectral range, the mirror reflectivity is easily degraded by the molecular contamination. Therefore, it is very important to evaluate the effects of the contamination on the mirror.

In this study, we prepared the mirrors contaminated by some materials that would be used in EXCEED instrument. Then, we have compared the reflectivities of those mirrors for EUV for both before and after contamination. In this presentation, we report those results.

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