

Examination of Image Intensifier for the BepiColombo mission

Gentaro Ogawa[1]; Go Murakami[2]; Fukuhiro Ezawa[2]; Shingo Kameda[3]; Ichiro Yoshikawa[4]

[1] Earth and Planetary Science, The University of Tokyo; [2] Earth and Planetary Sci., Univ. of Tokyo; [3] ISAS/JAXA; [4] Univ. of Tokyo

The Mercury's Sodium Atmosphere Spectral Imager (MSASI) on Mercury Magnetospheric Orbiter (MMO) / BepiColombo is under development. MSASI is a high-dispersion spectrometer working in the spectral range around sodium D2 emission. The detector unit employs an Image Intensifier which has two-stage micro channel plate (MCP).

In this presentation, we report the results of performance test for the Image Intensifier. We have focused on the following points.

1. Spectral resolution.
2. Dependency of Dark-Counts on temperature.
3. Radiation tolerance of P46 (phosphor).
4. Life time.