

## uvSCOPE - NO<sub>2</sub> observation from International Space Station-

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Emissions of air pollutants have increased in the past decades in Asian region, and precise understanding of the emission source become more important to estimate the accurate amount of the emission for the view of domestic air quality, intra-continental and inter-continental long-range transport. We have been trying to detect unknown source of the local "hot spot" of the pollution source.

In 2006, the Japan Society of Atmospheric Chemistry (JSAC) formed Commission on the Atmospheric Environmental Observation Satellite to initiate the discussion of future satellite mission for air quality. In 2014, the mission concept, a UV/VIS sensor for NO<sub>2</sub> and absorption aerosol, was recommended from Earth observation committee to the middle class mission of exposed module of KIBO in International Space Station. Targeted spatial resolution is about 1-2 km, and focused to detect "a hot spot of the pollution source using NO<sub>2</sub> emission". Overview of the mission including user requirement and the sensitivity study will be presented in this talk.

Keywords: Air quality, International Space Station, UV/VIS imaging spectrometer