

国際宇宙ステーション搭載 NO₂ 等大気汚染観測ミッション uvSCOPE uvSCOPE - NO₂ 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 NO₂ 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 NO₂ emission". Overview of the mission including user requirement and the sensitivity study will be presented in this talk.

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