研究紹介

スペースシャトル STS-R2 を利用した結晶成長機構の研究

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Study of Crystal Growth Mechanisms by Using Space Shuttle Mission STS-R2

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Abstract

In order to study crystal growth mechanisms, NASDA has been preparing three crystal growth experiments in collaboration with principal investigators (PIs) and hardware engineers. The experiments will be carried out with the Solution Crystallization Observation Facility developed by NASDA for SPACEHAB (HAB-SCOF). HAB-SCOF has two *in-situ* measurement devices, a Mach-Zehnder-type two-wavelength microscopic interferometer and an amplitude modulation microscope. By using these devices, temperature and concentration distributions as well as growth rates will be obtained. For one experiment, an additional interferometer will be added into a cartridge to provide a more accurate temperature distribution. The obtained data will be used to verify theories, proposed by PIs, and to improve them if necessary.