

||||| 特集：結晶成長メカニズム |||||
(解説)

ファセット的セル状凝固過程のその場観察
—長時間微小重力実験を目指して—

稲富 裕光・栗林 一彦

***In Situ* Observation Experiment of Faceted Cellular
Array Growth under Microgravity Condition**

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Abstract

In situ observations were carried out in faceted transparent organic materials grown unidirectionally by multi-wavelength interferometry, which enabled us to measure the distribution of temperature and solute concentration distributions in the liquid in the vicinity of the solid/liquid interface simultaneously. The aim of the experiments was to reveal a mechanism of a faceted cellular array growth taking account of an influence of latent heat of fusion of the material upon a temperature distribution in the melt. Some experimental results were briefly summarized in the present report.