

||||| 特集：国際宇宙ステーションの応用利用 |||||
(研究紹介)

宇宙実験による高分解能タンパク質構造解析の 応用に向けて

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High-quality Protein Crystal for Precise Structural Analysis Obtained by JAXA Crystallization Experiment in Space

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Abstract

Most of the protein crystallographers are making big efforts to improve the resolution of a crystal to resolve the protein structure as precise as possible. One of the bottle-neck of the three-dimensional structure determination is to grow high-quality crystal. In JAXA-GCF and JAXA-NewGCF crystallization experiments, we established a technique of obtaining crystals of high-quality in microgravity and grew several high-quality crystals of important proteins. Here, we describe some successful results of obtaining high-quality protein crystals in microgravity and introduce effective way of using the microgravity environment for growing high-quality protein crystals to contribute to the new drug design.