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(Jan. - Mar. 2003)

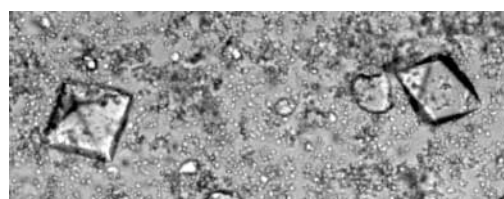
The abstracts of the recent research information appeared on the Vol.3 No.1-No.3 of "AIST Today" are introduced and classified by research area. For inquiry about the full article, please contact the author directly.

Life Science & Technology

Action of a Water-Soluble Polymer on Protein Crystal Growth

Mitsuo ATAKA
Special Division for
Human Life Technology
e-mail:
m-ataka@aist.go.jp
AIST Today Vol. 3, No. 1
(2003) 17

Addition of polyethylene glycol (PEG) has been empirically known to promote crystallization of a number of proteins. We have recently shown that the "depletion model" can be used to reproduce the attractive interaction between apoferritin molecules induced by addition of PEG [S. Tanaka and M. Ataka: *J. Chem. Phys.* 117, 3504 (2002)]. The depletion model, originally proposed in 1953 by Asakura and Oosawa, is used recently to explain the behavior of a variety of protein and colloid solutions. Combination of the model with a recent theory of protein crystallization is capable of predicting the most efficient molecular weight of PEG.



A microscopic photograph of apoferritin crystals obtained by the addition of polyethylene glycol.