



Advanced methods in macromolecular crystallization VI

The 1st joint FEBS-INSTRUCT crystallization course in the middle EU
(FEBS PC14 005)

Academic and University Center, Nové Hradý, June 20 - 27, 2014

Topics

E.coli - a factory for recombinant proteins
The road from protein expression and purification to protein crystallization
Protein as the main variable in crystallization
In vivo protein crystallization as a new route for structural biology
Introduction to protein crystallization
Nucleation of protein crystals
Morphology and crystal growth mechanisms
Preparation of protein samples for crystallization experiments
Protein crystallization screening
Additives in protein crystallization
Advanced light scattering methods
Conventional crystallization methods and their modifications
Crystallization under oil
Advanced crystallization techniques
Counter diffusion methods for protein crystallization and screening
Lipidic cubic phase crystallization
Microseeding with automatic systems
Nanocrystals for future application
Membrane protein crystallization
Interpretation of the crystallization drop results
Crystallization and crystallog. analysis in a microfluidic chip
Illuminating the screening process with fluorescence
Tips and tricks for protein crystal manipulation
Crystal mounting and freezing
Screening the diffraction quality of protein crystals
The growth of large crystals for neutron diffraction
Crystallogensis methods for structural biology
Publishing your crystallization results

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