Poster

Sample preparation for routine and advanced structural biology, including serial data collection and microED

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Serial data collection and microED techniques usually require "slurries" of tiny, well-ordered crystals. Neutron diffraction requires very large single crystals. Microseeding effectively generates such samples since the seed stock can be concentrated or diluted as required. During the 16 years since the random microseed matrix-screening (rMMS) method was published, understanding of the theoretical advantages of the method has increased, and several practical variations of the technique have emerged. Moreover, seeding can be carried out in a microbatch-under-oil setup, which has two important advantages: (1) easily-interpreted phase diagrams can be constructed in a few minutes; (2) batch experiments are easy to scale up. We present case studies using these approaches to increase control and crystal quality for routine and advanced data collection.

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