
Rick Kirian, Sample injectors for gathering serial diffraction data at x-ray free-electron lasers (9 Oct)

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ABSTRACT

Utilizing the full power of a micro-focused beam from an x-ray free-electron laser requires that targets are rapidly replenished after every pulse, since the ~3mJ XFEL pulses vaporize anything in its path. This course will provide an overview of the various methods by which serial diffraction data from organic targets such as protein crystals, viruses, and cells are collected using, for example, gas-dynamic liquid jets and aerosol-focusing injectors. Both basic operational theory and practical considerations will be covered. As time permits, other considerations that are important when collecting serial diffraction data will be discussed.
