MS04-P113 - LATE | BEAM-INDUCED MOVEMENT ATTENUATION WITH SINGLE WALL

CARBON NANOTUBES

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Protein crystallization has long been seen as the principal bottle-neck in traditional X-ray crystallography, recent advances in cryo-electron microscopy now allow for structural elucidation without the need for crystallization with structural resolutions rivalling that of crystallographic methods. Despite these advances, sample movement and drift hamper image alignment making the acquisition of high-resolution structures difficult. Methods used to counter the effects of beam-induced motion include image alignment processing algorithms along with physical interventions such as the use of ultra-stable gold grids and graphene sample supports. Herein we utilize carbon nanotubes as a support scaffold to prevent beam-induced motion without modification of sample buffers.