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Improving and re-inventing sample delivery for serial and time-resolved crystallography.

Serial crystallography methods, now established at both XFEL (Chapman,

2011) and third generation synchrotron sources (Gati, 2013; Stellato, 2014; Nogly, 2015) are very well suited for time-resolved experiments (Tenboer, 2014; Barends, 2015; Pande, 2016), making it possible to reveal the dynamic nature of biological macromolecules and their interactions at near-atomic spatial resolution and on ultrafast timescales, even for extremely radiation sensitive samples.

Here we describe novel sample delivery methods for reduced sample consumption, increased data collection efficiency and designed for mix-and-inject experiments.

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