## **Poster Presentation**

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## Fast SAXS data at home--Your personal SAXS beamline

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Small angle X-ray scattering (SAXS) is a useful technique for extracting structural information from biological samples in solution. Our SAXS instrument, the BioSAXS-1000, combines Kratky collimation with confocal optics to achieve maximum X-ray flux on the sample without beam shape corrections. Recently, we offered three new upgrades to the BioSAXS-1000: (1) 2.3 times more flux with the OptiSAXS optic, (2) automatic sample loading, and (3) automatic data analysis. Here, we evaluate the quality of SAXS data collected in short exposure times on the BioSAXS-1000 with these 3 upgrades by using X-rays supplied by an FR-X rotating anode X-ray generator. We measured a concentration series for each of several protein standards (lysozyme, HSA, etc.). Our results show that 1-minute exposures were sufficient to determine the basic structural parameters: radius of gyration, extrapolated intensity at zero angle, and molecular weight. The upgraded BioSAXS-1000 provides a beamline experience in the home laboratory.



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