

SEC-SAXS studies of double-stranded RNAs from trypanosome RNA editing

Blaine H. M. Mooers Department of Biochemistry and Molecular Biology, 975 NE 10th St., BRC 466, University of Oklahoma Health Sciences Center, Oklahoma City, OK 73104

SAXS studies of double-stranded RNAs are hindered by the presence of aggregates and the frequent presence of intermolecular interactions. Size exclusion chromatography SAXS can remove aggregated RNA prior to exposure of the RNA to the X-ray beam and thereby permit SAXS studies that would otherwise be difficult. We present several successful SEC-SAXS studies of double-stranded RNAs from trypanosome RNA editing that were done at APS BIOCAT ID-18 and SSRL BL 4-2. We also discuss the practical aspects of these studies and the remaining challenges.