



	Experiment title: Modeling the short-range order in a one-dimensional lead halide pseudo-perovskite	Experiment number: MA-5437
Beamline: ID22	Date of experiment: from: 5/10/22 to: 6/10/22	Date of report: 26/4/23
Shifts: 3	Local contact(s): Ola Gjonnes GRENDAL	<i>Received at ESRF:</i>
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Report:

$((\text{CH}_3)_3\text{SO})_3\text{Pb}_{3x}\text{Bi}_{2(1-x)}\text{I}_9$ powders were prepared by precipitation from aqueous solutions as described in J. Phys. Chem. C (2021). Phase purity of all samples was checked with laboratory XRD before shipping.

Samples were put in capillaries and XRD patterns acquired at ID22 with 0.4 Å radiation. All samples decomposed under the beam before even the first diffraction pattern could be acquired. Various amounts of PbI_2 and BiI_3 are observed in all patterns, together with other unidentified decomposition products.

Appropriate countermeasures against radiation damage (e.g. cryogenic conditions) need to be taken if hybrid halide perovskites are exposed to high-brilliance synchrotron beam.