

Supplement of The Cryosphere, 10, 2057–2068, 2016
<http://www.the-cryosphere.net/10/2057/2016/>
doi:10.5194/tc-10-2057-2016-supplement
© Author(s) 2016. CC Attribution 3.0 License.



Supplement of

Direct visualization of solute locations in laboratory ice samples

Ted Hullar and Cort Anastasio

Correspondence to: Cort Anastasio (canastasio@ucdavis.edu)

The copyright of individual parts of the supplement might differ from the CC-BY 3.0 licence.

Supplemental materials are available at:

<http://dx.doi.org/10.1594/PANGAEA.855461>

Captions for supplementary information

Note: On some monitors, the color labeled “orange” in the movie legends may appear more yellow than orange.

S1: Movie of pure water, frozen in the Freezer.

S2: Movie of pure water, degassed with helium, frozen in the Freezer.

S3: Movie of 1 mM cesium chloride (CsCl) solution, frozen in the Freezer.

S4: Movie of 1 mM cesium chloride (CsCl) solution, frozen in the Freeze Chamber.

S5: Movie of 1 mM cesium chloride (CsCl) solution, frozen in the Freeze Chamber, with the sample vial surrounded by metal plates.

S6: Movie of 1 mM cesium chloride (CsCl) solution, frozen in Liquid Nitrogen (LN2). There is one visible deformity in the side of the ice sample, which is caused by a defect in the sample vial wall.

S7: Single high-resolution (2 μm) cross section of 1 mM CsCl solution, frozen in LN2, showing small air and solute inclusions.

S8: Chemical structure of Rose Bengal.

S9: Movie of 1 mM Rose Bengal solution, frozen in the Freeze Chamber.

S10: Histogram of three replicate samples of 1 mM CsCl solution frozen in the Freeze Chamber.

S11: Movie of pure water, frozen in the Freeze Chamber.

S12: Movie of pure water, frozen in the Freeze Chamber, in a plastic vial.

S13: Movie of 1 mM cesium chloride (CsCl) solution, frozen in the Freeze Chamber, in a plastic vial.

S14: Movie of 1 mM Rose Bengal solution, frozen in the Freeze Chamber, in a plastic vial.

S15: Movie of 1 mM CsCl solution, frozen in the Freezer, showing side-by-side images at both 2 μm and 16 μm resolutions.

S16: Time-lapse movie of 1 mM CsCl solution, frozen in the Freezer, 2 μm resolution, showing motion of CsCl solution around air bubbles.

