



Ice Nucleation Cold Stage

<https://cif-cold-stage.github.io/>

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The main purpose of the instrument is to observe the freezing nucleation process of supercooled water droplets. The instrument is suitable for studying ambient ice nucleating particle concentrations and laboratory-based process-level studies.

Instrument Capabilities

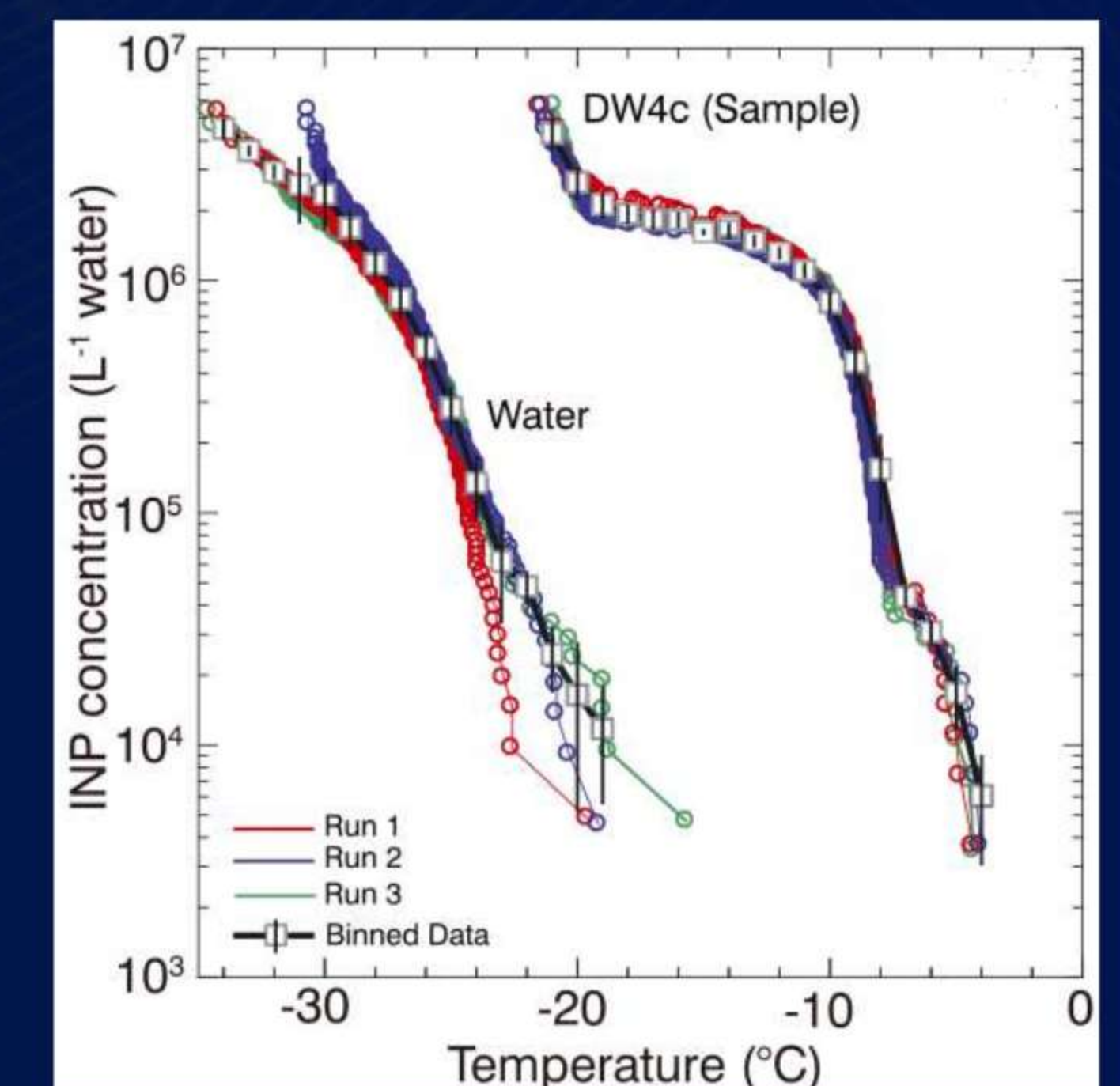
- Quantification of ice nucleating particle concentration in atmospheric aerosol, rainwater, and snow melt.
- Laboratory studies of ice nucleation processes, including determination of ice nucleation active site density of different materials.

Request Process

- Informal inquiries are accepted at any time via Email (address above).
- A formal request is initiated via the "Request" tab of the project page (QR code below).

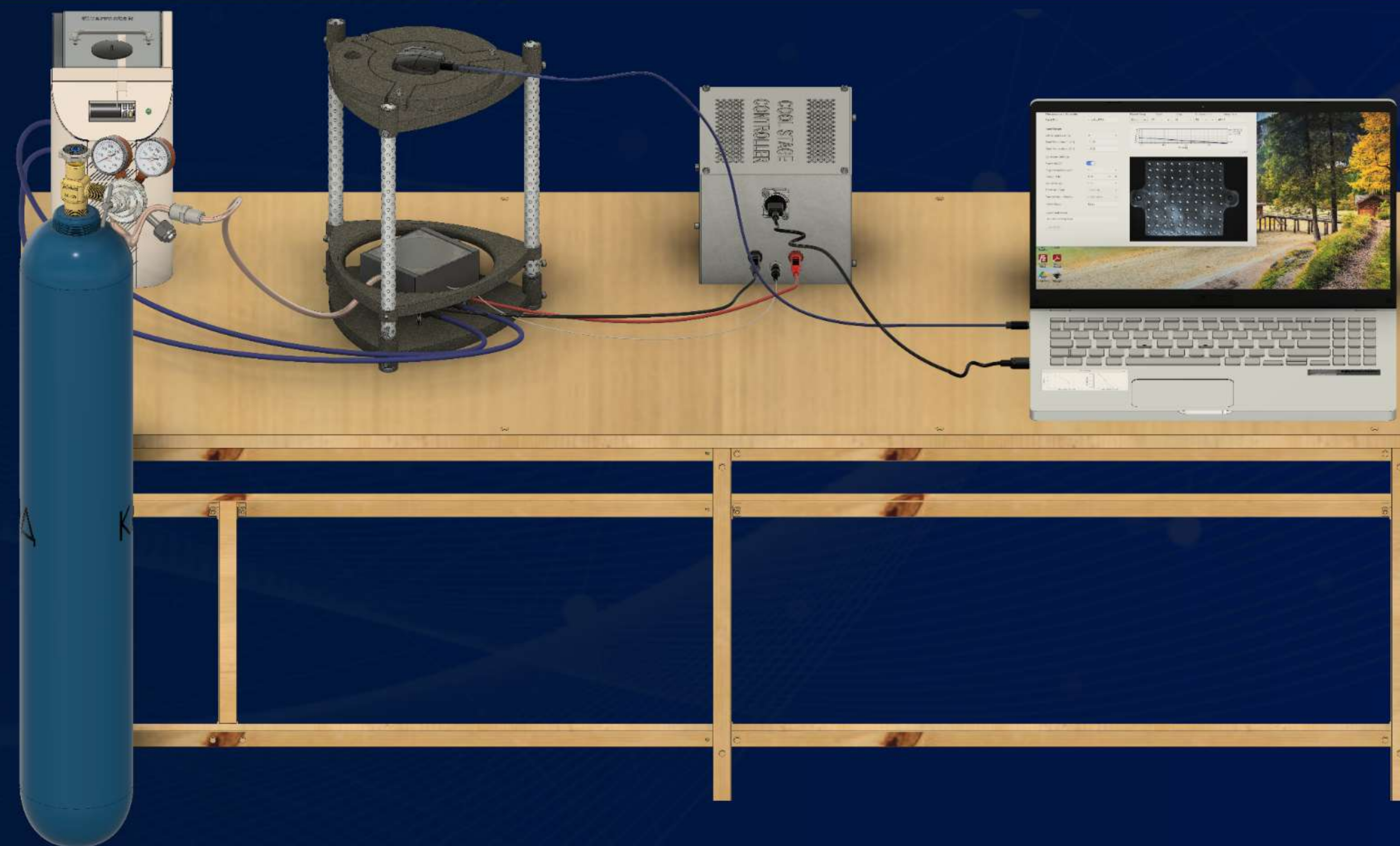
Application

Example ambient aerosol ice nucleation particle concentration spectra obtained with the instrument.



Open Hardware

- The instrument can be built using commercially available parts.
- Part number is provided for each item.
- Assembly and operating procedure is provided.
- Software to operate and analyze is open source.



FIRP Request Process: [NSF Webpage](#)