Cloud Droplet Probe (CDP) Sizing Performance Check

Instructions

Follow all directions. Use the Sections and avoid issue discussed in the Article Guide (http://aerosol.atmos.und.edu/ArticleGuide.pdf). Name your report ${Student_Name}_CDP-Lab_${Date}.* where ${Student_Name} is replaced with your name and ${Date} is the date when document is lasted modified in the format YYYYMMDD.

Objective

The objectives is to conduct a sizing perform check on the CDP and determine if the CDP is performing correctly.

Reference Material

The CDP's wiki page (http://wiki.atmos.und.edu/doku.php?id=atmos:citation:cals:cdp:home:cloud_droplet_probe) contains documentation on how to process the performance check data.

Outline

- Collect CDP data using 15 and 30 um calibration beads.
- Take lab notes and run bead though the CDP.
- Working on one of the Linux workstation, obtain a copy of the raw *.sea data file
  - //aircraft.atmos.und.edu/nas/und/NorthEast/2023/Aircraft/P3_N426NA/GroundData/20220825_183839/PostProcessing/22_08_25_18_38_29.sea
- Process the data using the process_all script.
- Analyze the CDP lab data for the time period when beads are sampled.
  - Follow the documentation provided on the wiki page.
  - If the wiki page lacking in important information, you should find out the necessary information and add it to the wiki page.
- Following completion of your analysis, compare results to previously conducted performance checks.
  - //aircraft.atmos.und.edu/nas/PerformanceChecks/CloudDropletProbe
- Write complete report.