MARCUS ice nucleation measurements

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Ice nucleating particle measurements during MARCUS

0.05 µm filters

Daily filters during cruises

DNA sequencing

Count INPs

Heat, enzymes, etc

Release

Freezing spectra

CSU Ice Spectrometer (IS)

Funded:
Standard processing, thermal treatment

Reserved samples for future:
Genomic analyses, enzymatic treatments

2016 ARM/ASR Joint User Facility and PI Meeting MARCUS Breakout Session
Processing data and integrating with AMF suite (example: ACAPEX)

Aerosol surface area from size distribution or nephelometry

→ parameterization
Integration with SOCRATES and CAPRICORN

Green: completed or confirmed

• First CAPRICORN sampling just completed (March 14-April 18): IS and continuous flow diffusion chamber (CFDC)
• CAPRICORN intensive (Jan. 2018): IS and CFDC
• SOCRATES flights (G-V) January 2018: IS and CFDC
• MICRE annual cycle at Macquarie Island (2017-2018): IS