

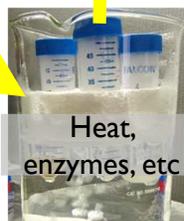
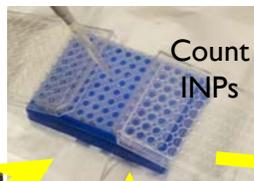
MARCUS and MICRE ice nucleation measurements and possible data plans

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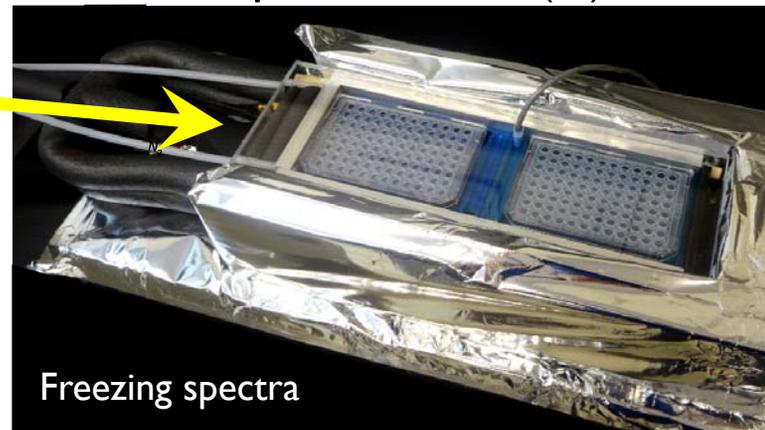
Ice nucleating particle measurements during MARCUS



Alternating 24/48 hour filters



CSU Ice Spectrometer (IS)



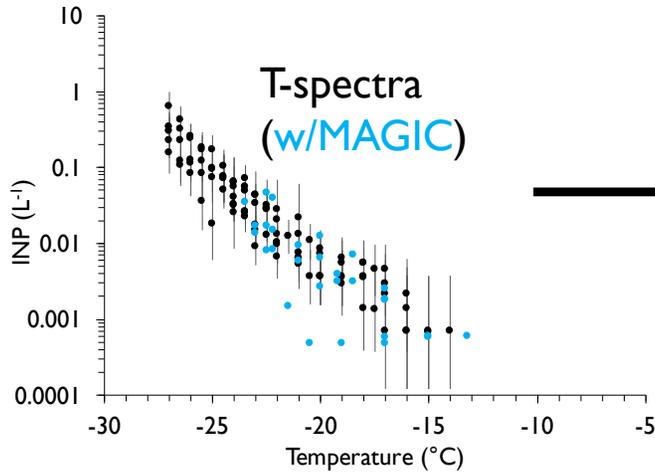
- ~60 Filters collected
- Standard processing of all, thermal treatment of 1/3 is funded
- Archived by September 15, 2018
- Reserved samples for genomic analyses, OC removal, ionic analyses, TOC analysis (proposed)

MICRE

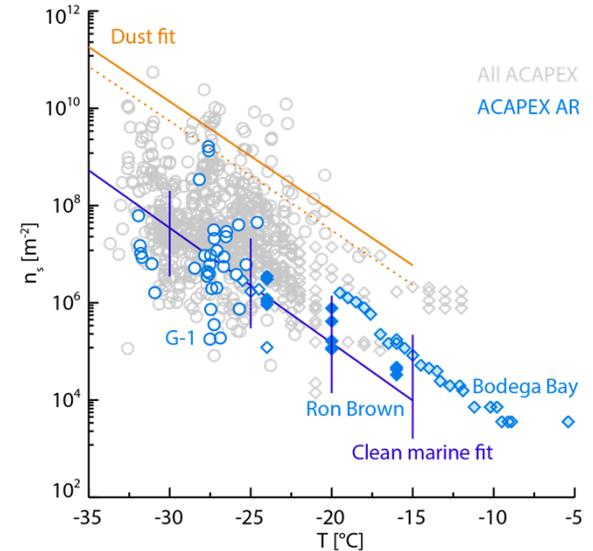


- ~104 filters collected of alternate duration of 48 and 72 hours
- Standard processing 50, additional thermal treatment of 20
- Simple INP concentration timelines produced
- Reserved samples for genomic analyses, OC removal, ionic analyses, TOC analysis (proposed)
- Archived by September 30, 2018

Processing data and integrating with AMF suite for MARCUS (proposed; examples from other studies)

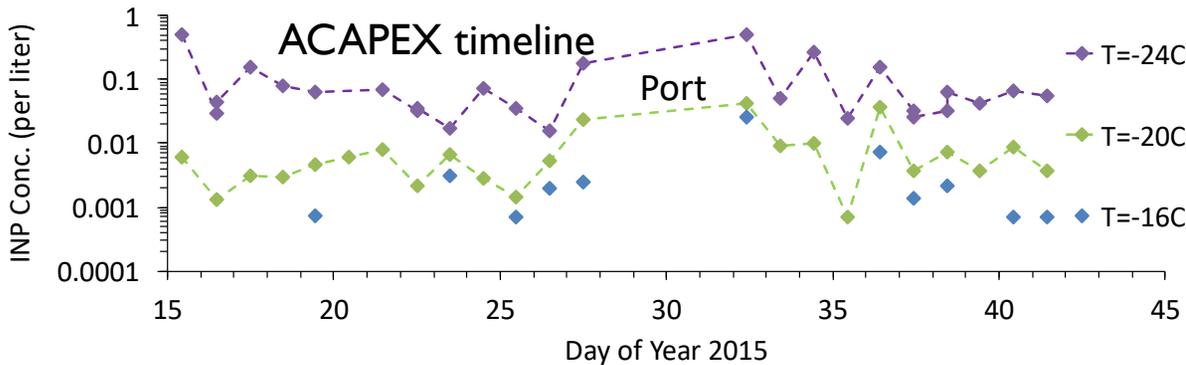


Aerosol surface area from size distribution and nephelometry



→ parameterization

Levin et al. (2018, in prep for submission)

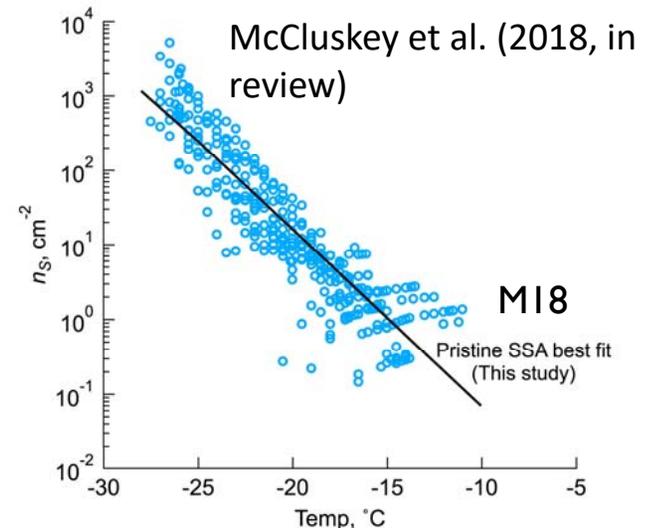


Processing data and integrating with measurements at MICRE (proposed)

Lidar retrievals
(Simon Alexander,
AAD) following
Mamouri and
Ansmann (2015)

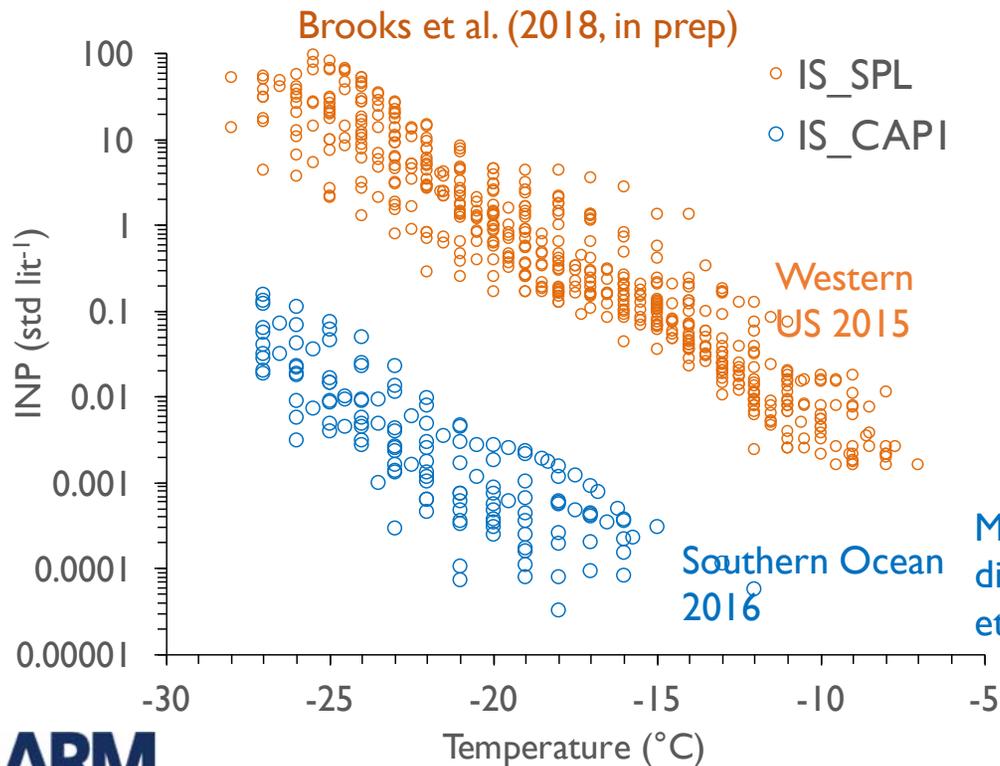


Aerosol surface
area, $>0.5 \mu\text{m}$
aerosol
concentration



Also available: CPC timeline (CSIRO),
MFRSR, Aeronet

Expect extraordinarily clean conditions



PLEASE DO NOT REPRODUCE

Paul DeMott (March 2018)