

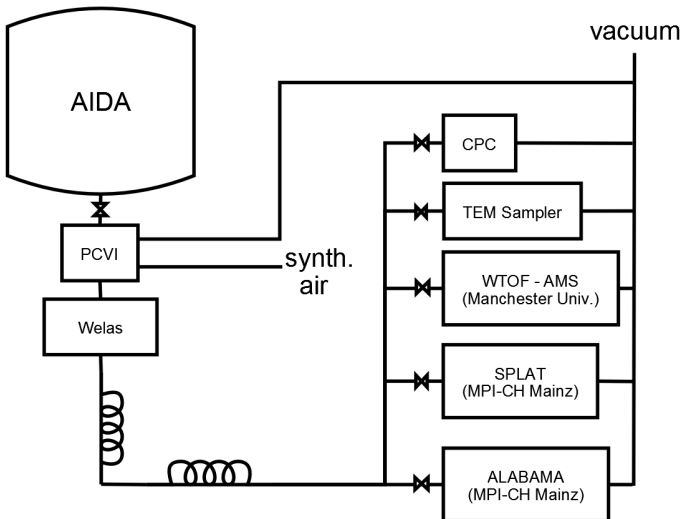
# Pumped Counterflow Virtual Impactor (PCVI)

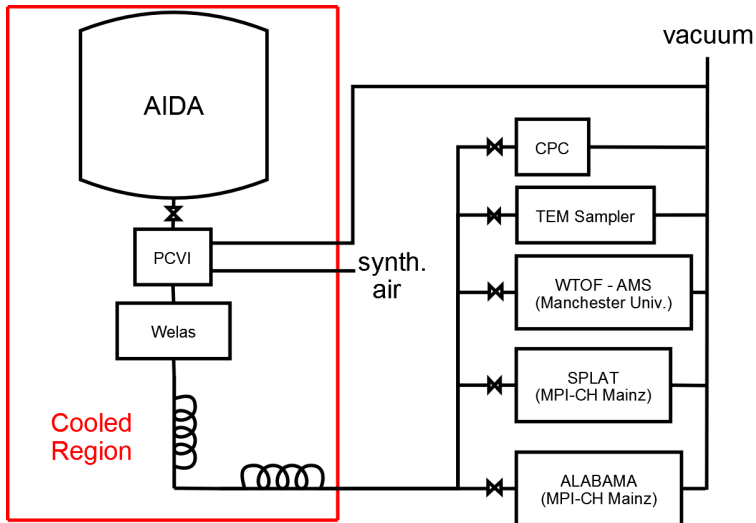
## Experiment Setup

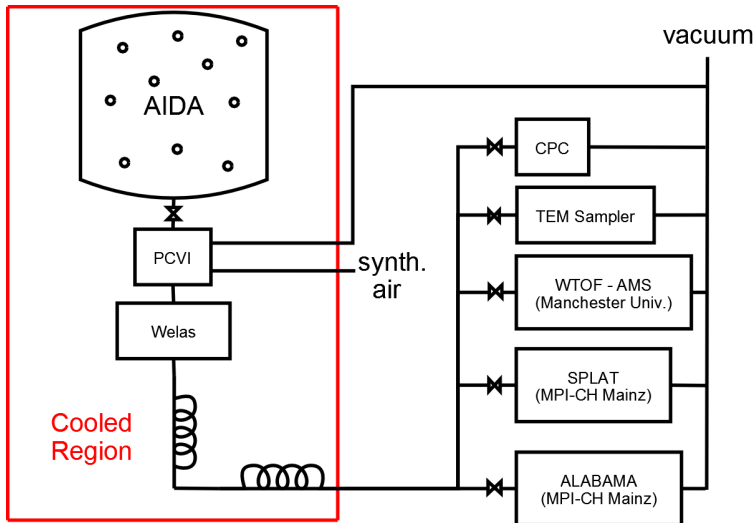
Monika Niemand, Ottmar Möhler, Caroline Oehm

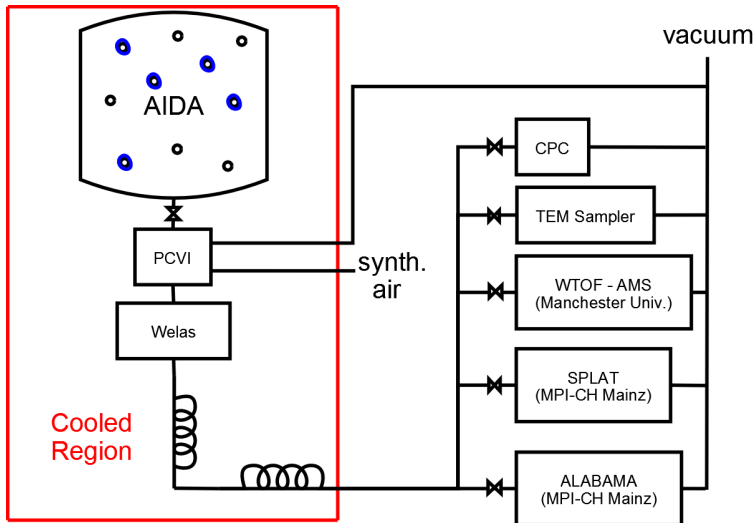
Karlsruhe Institute of Technology (KIT)  
Institute for Meteorology and Climate Research  
Atmospheric Aerosol Research Division

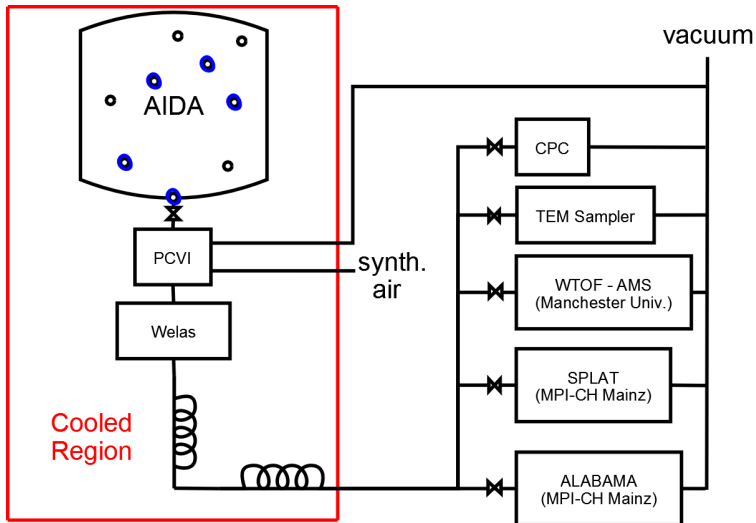
6./7. Oct. 2008 / Workshop

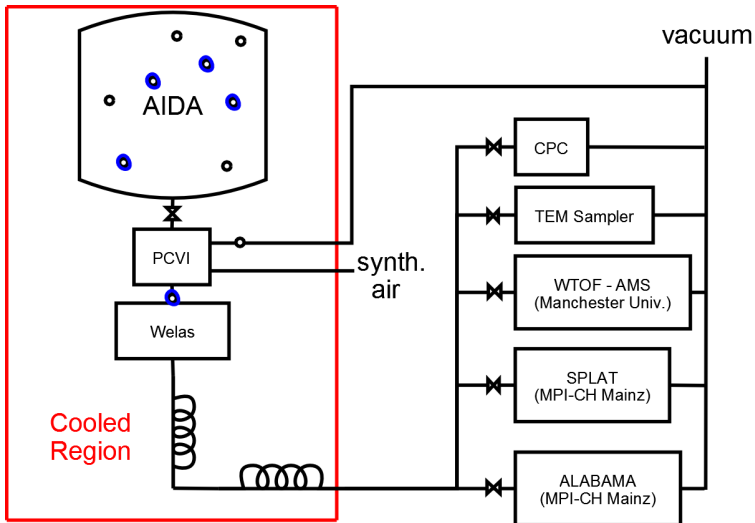


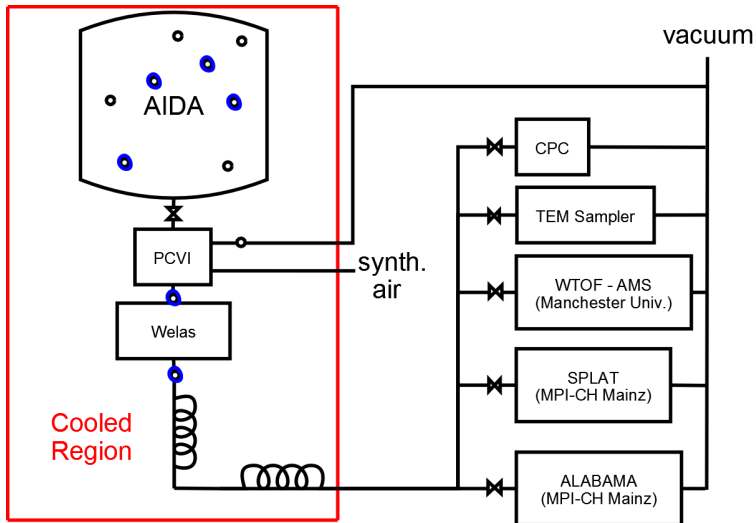




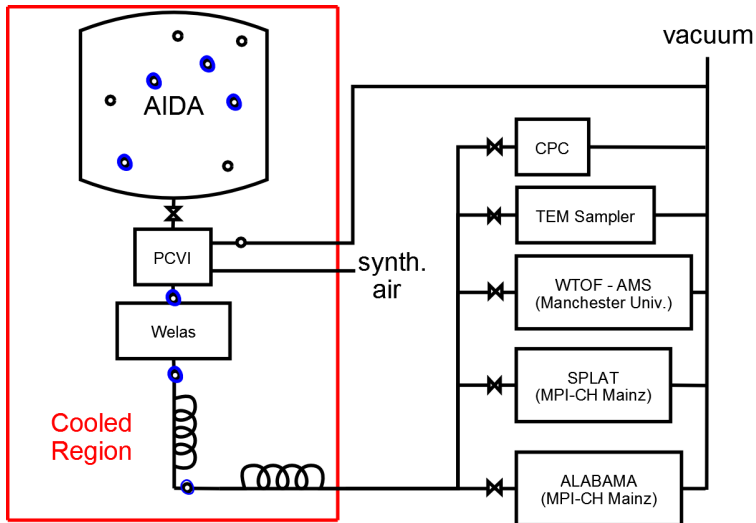


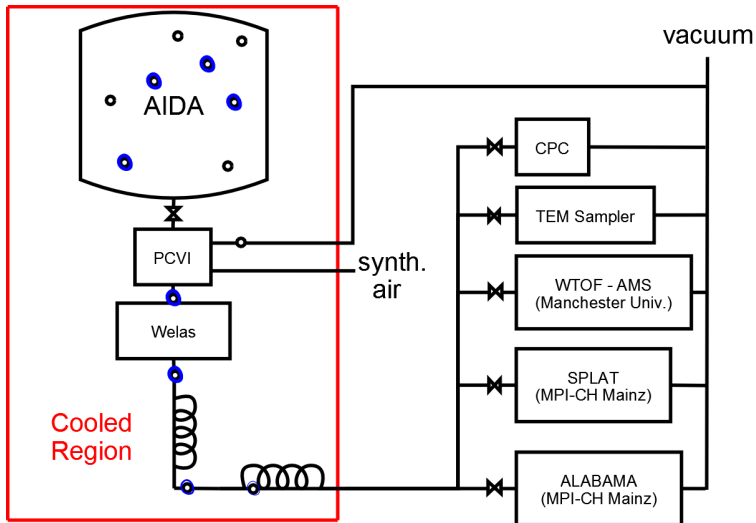


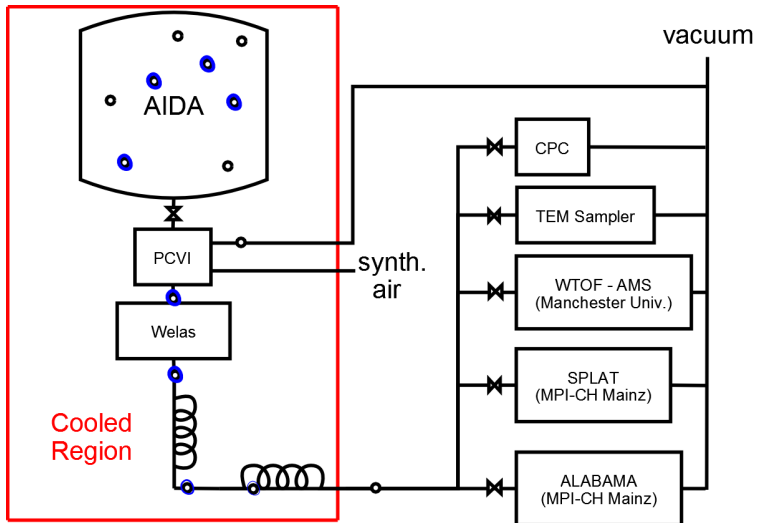


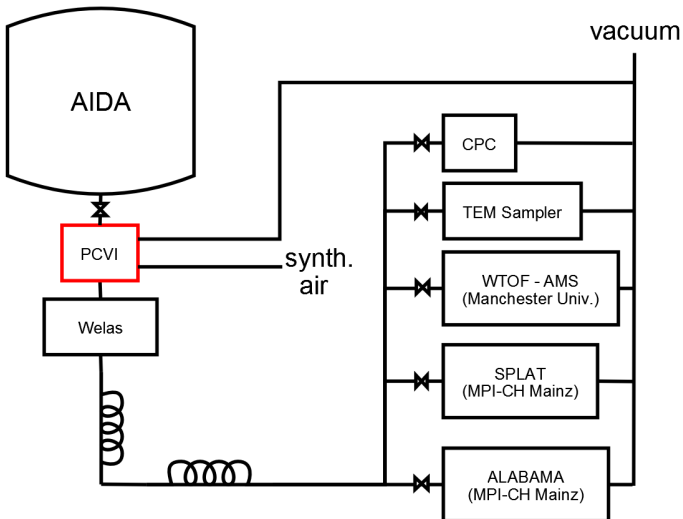




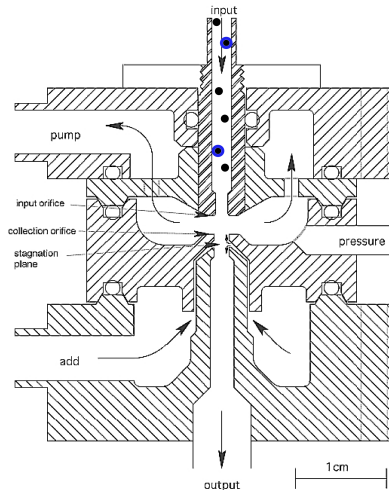






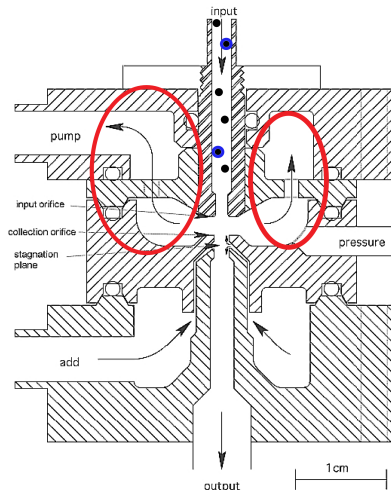


# PCVI Theory



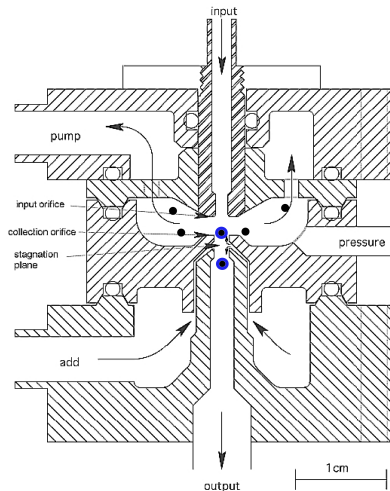
**Figure:** Design and Performance of a Pumped Counterflow Virtual Impactor, J. E. Boulter, D. J. Cziczo, A. M. Middlebrook, D. S. Thomson, and D. M. Murphy, *Aerosol Sci. Technol.*, 2006

# PCVI Theory



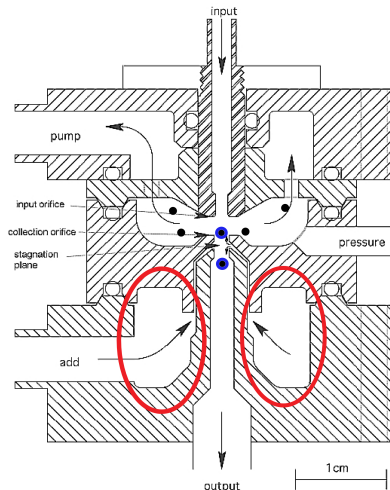
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# PCVI Theory



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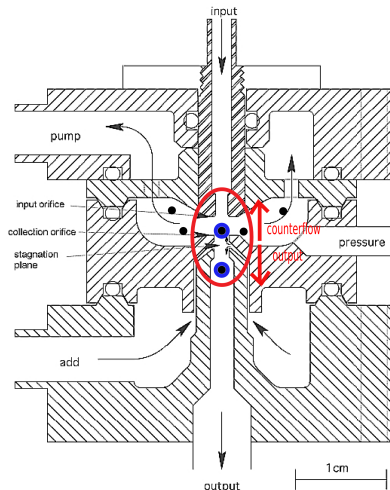
# PCVI Theory



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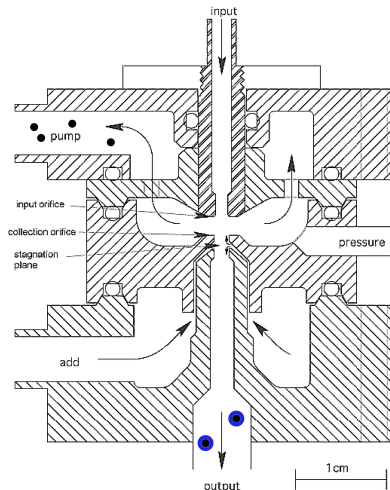


# PCVI Theory



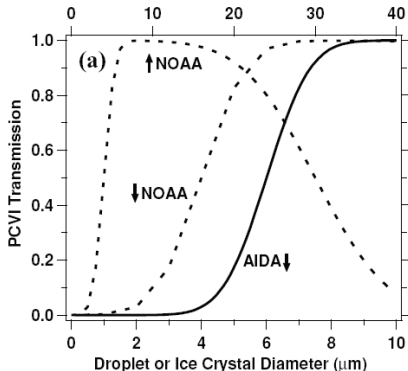
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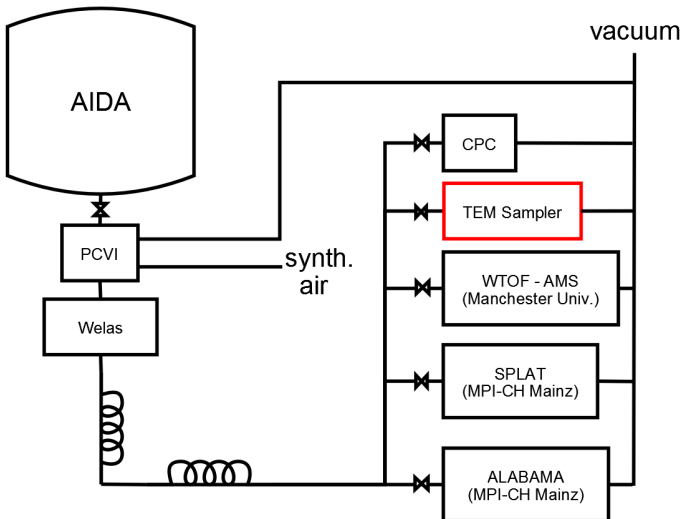


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# Transmission efficiency for the PCVI



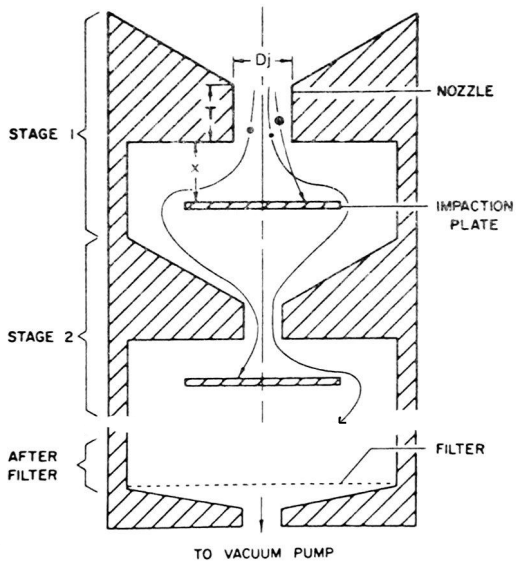
**Figure:** Single Particle Laser Mass Spectrometry Applied to Differential Ice Nucleation Experiments at the AIDA Chamber, S. J. Gallavardin, K. D. Froyd, U. Lohmann, O. Moehler, D. M. Murphy and D. J. Cziczo, *Aerosol Sci. Technol.*, 2008



# TEM-Sampler

Analysis of residuals will take place at the Institute of Applied Geosciences (TU Darmstadt) with a Transmission Electron Microscope

# TEM-Sampler



# Thank you.