

# Carbonaceous aerosol spectral absorption in the Amazon

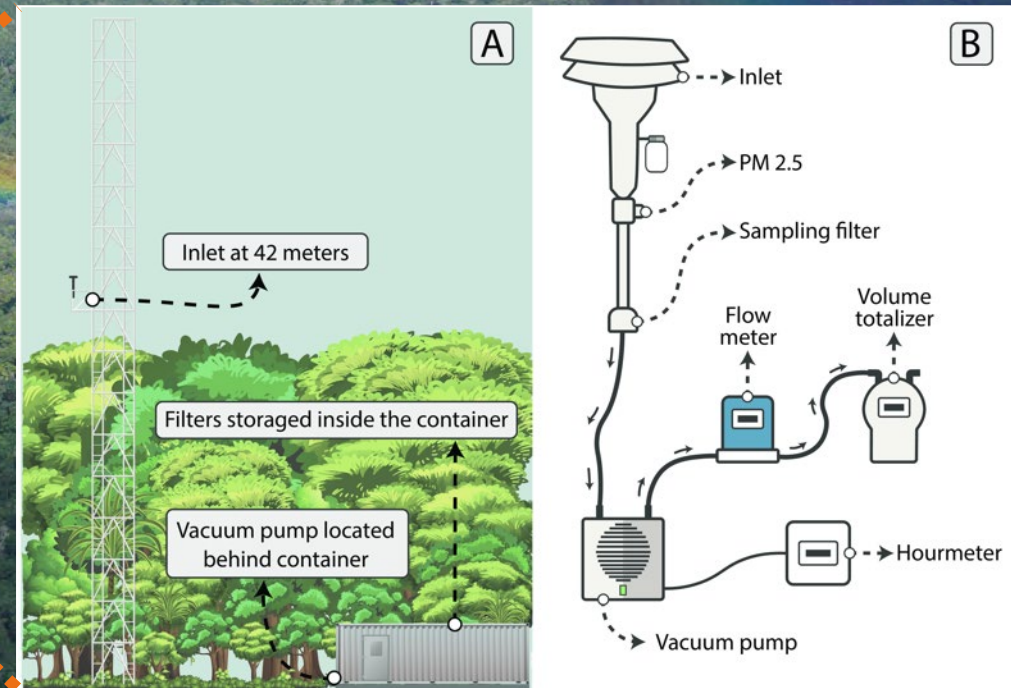
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34 PM<sub>2.5</sub> Filters sampled

26/mar to 31/oct 2019 (wet+dry seasons)

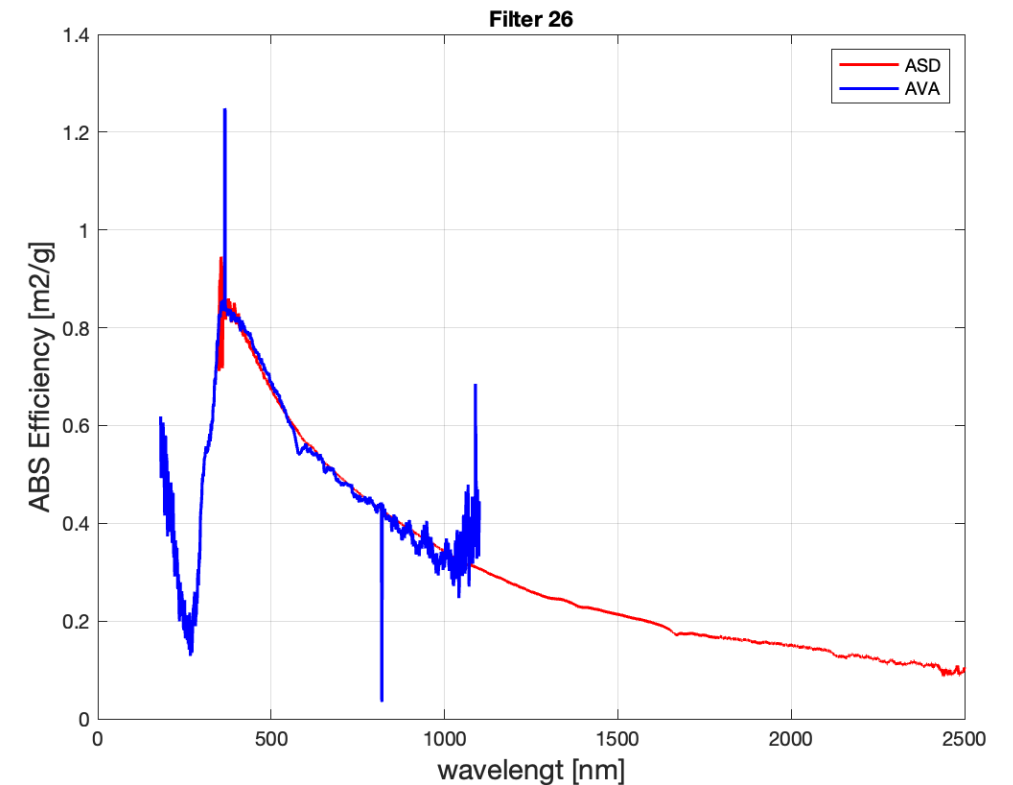
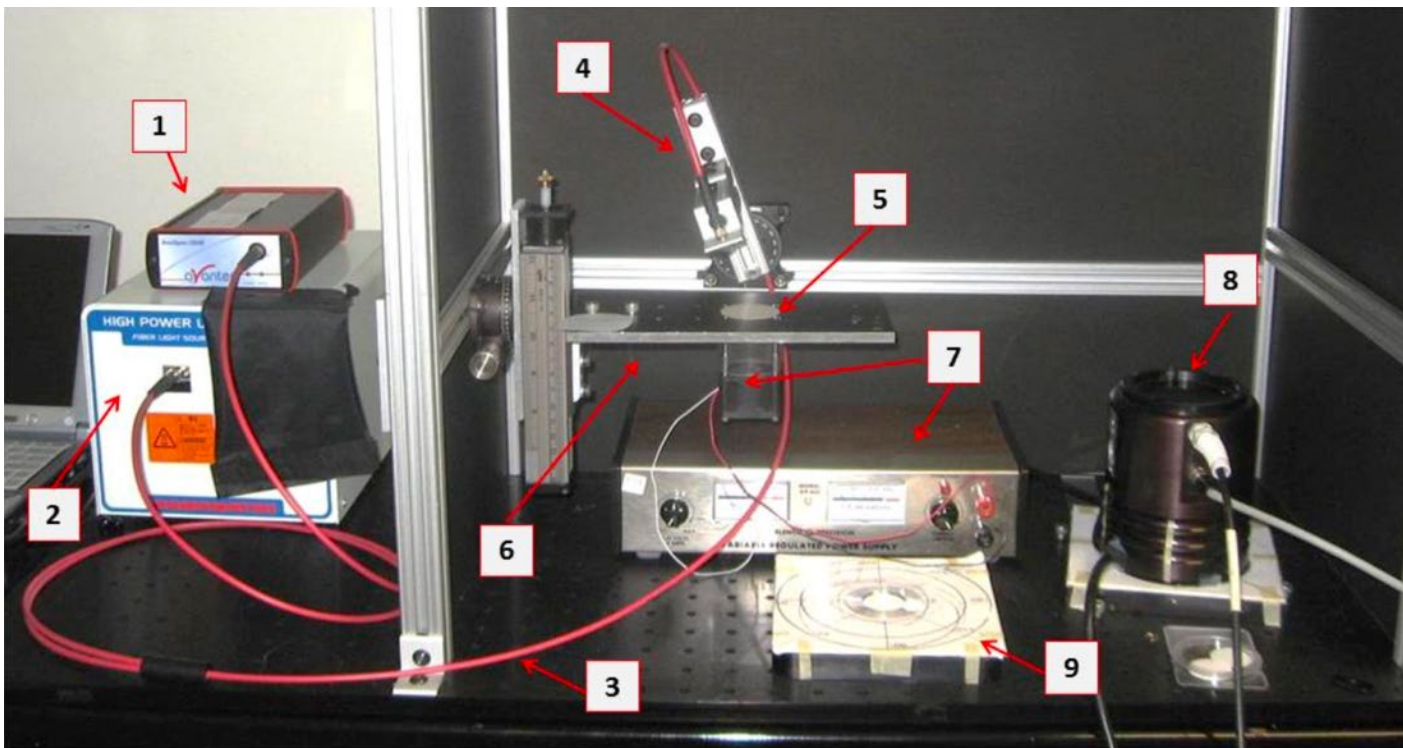




# Absorption by optical reflectometers

**Avantes AvaSpec 2048**  
200 – 1100 nm

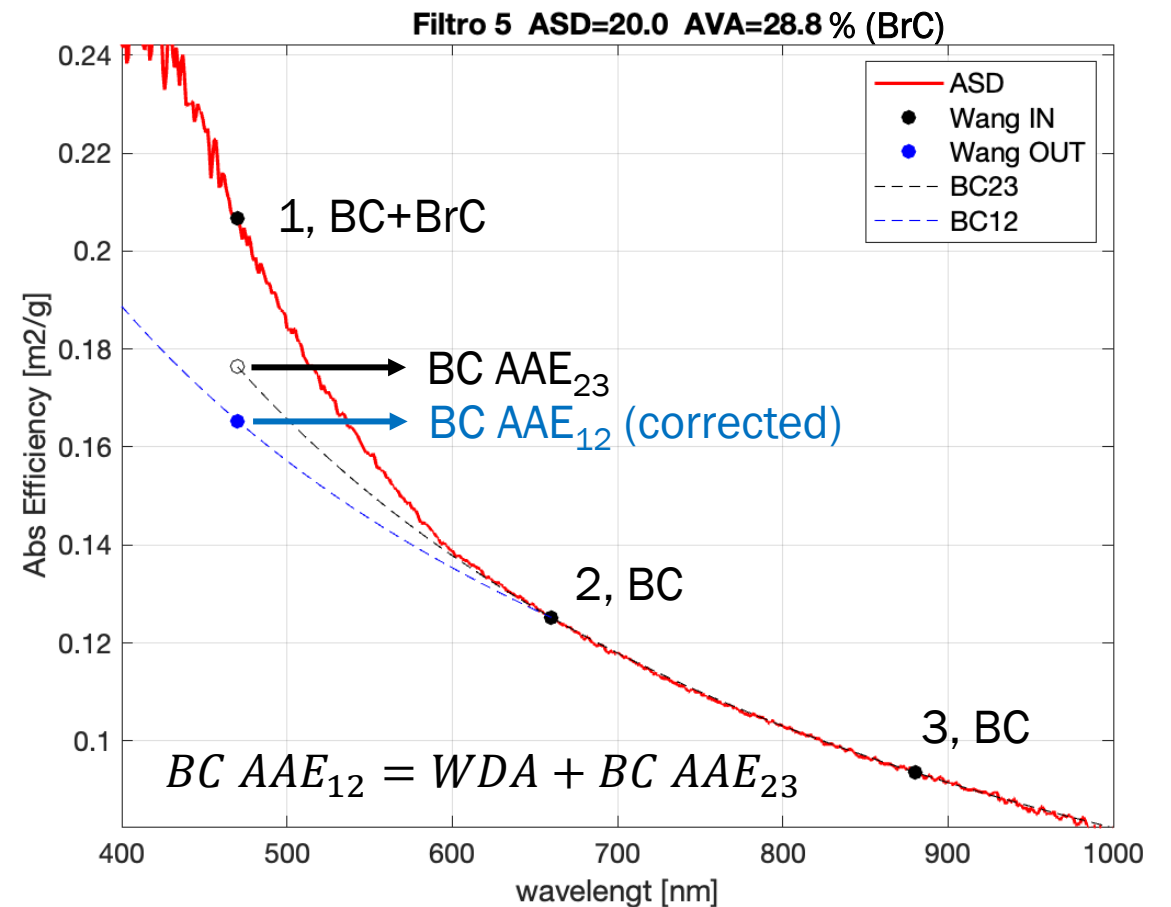
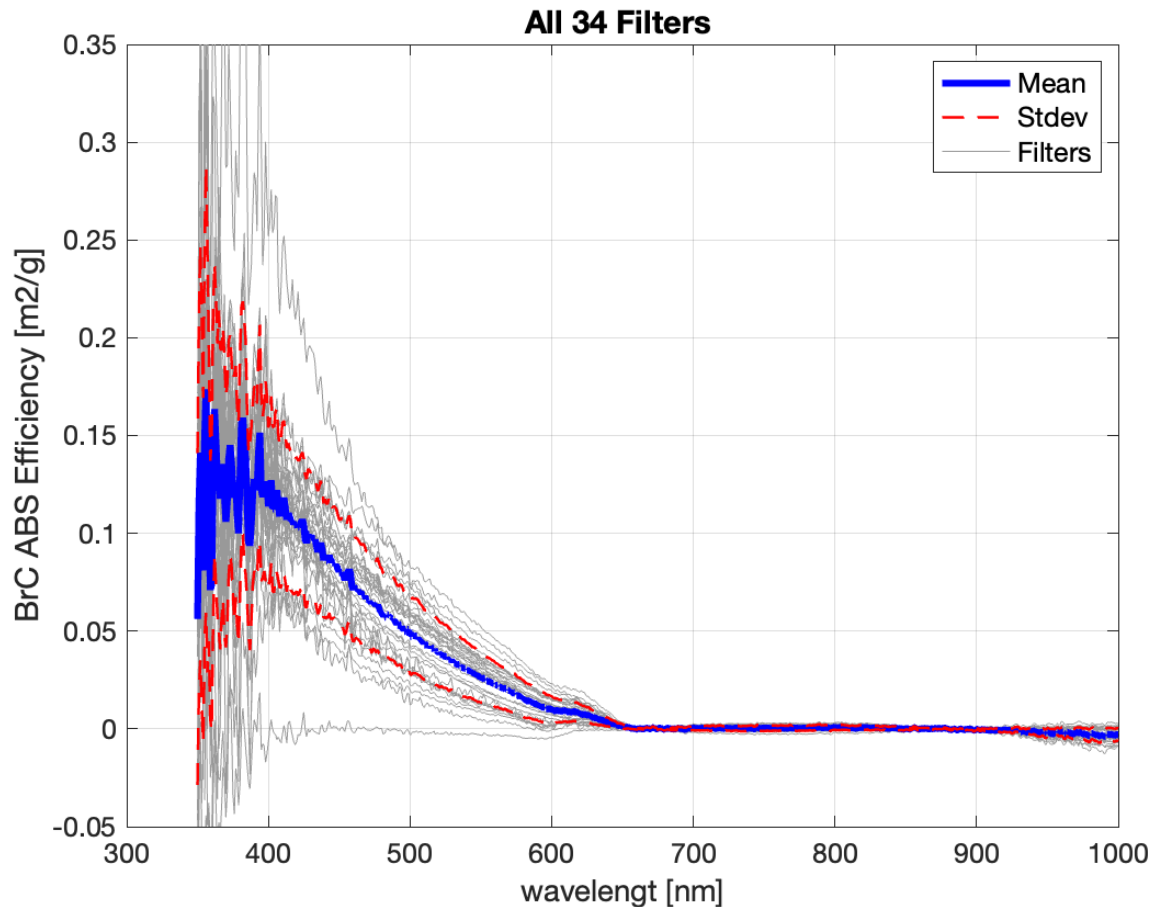
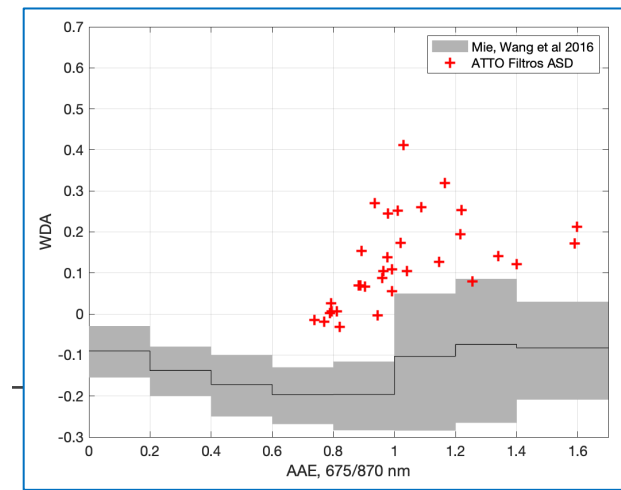
**ASD FieldSpec Pro**  
350 a 2500 nm



# BrC absorption efficiency

Wavelen. Depen.  
AAE (WDA)

Wang et al. (ACP, 2016) + Saturno et al. (ACP, 2019)  
Mie simulations based on SP2 measurements



# Conclusion

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- ❑ Analyzed 34 fine-mode Filters from the ATTO tower
- ❑ Measured Abs. from 300 to 2500 nm with high-resolution (1 nm)
- ❑ BrC starts to be significant below 600 nm and becomes maximum at wavelengths close to the ultraviolet (350-400 nm).
- ❑ **How to disentangle eventual dust contribution?**

Further details: Morais (PhD Thesis, University of Sao Paulo, 2022)