

# AEROCLO-sA PEGASUS aerosol extinction coefficient

## General information

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Dataset name: AEROCLO-sA PEGASUS aerosol extinction coefficient  
Created on: 2018-06-17

### Contact(s)

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### Period

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Date begin (yyyy-mm-jj): 2017-08-21  
Date end (yyyy-mm-jj): 2017-09-12

### Project(s)

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AEROCLO

## Data description

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### Abstract

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Aerosol particle extinction coefficient at two wavelengths (450 and 630 nm) measured at the surface level by the PEGASUS mobile platform located at the SANUMARC research center in Henties Bay, Namibia.

### Observing strategy

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The aerosol particle extinction coefficient at two wavelengths (450 and 630 nm) was measured by an Aerodyne extinction meter(model CAPS-PMEx, Aerodyne) operated in the PEGASUS mobile lab. Air was taken into the instrument from one of the two custom-built high volume wind-orientable inlet of the mobile station. Data were acquired continuously at 3 minute time resolution.

### References

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- Paola Massoli, Paul L. Keabian, Timothy B. Onasch, Frank B. Hills & Andrew Freedman (2010): Aerosol Light Extinction Measurements by Cavity Attenuated Phase Shift (CAPS) Spectroscopy: Laboratory Validation and Field Deployment of a Compact Aerosol Particle Extinction Monitor, *Aerosol Science and Technology*, 44:6, 428-435
- Petzold, A., Onasch, T., Keabian, P., and Freedman, A.: Intercomparison of a Cavity Attenuated Phase Shift-based extinction monitor (CAPS PMEx) with an integrating nephelometer and a filter-based absorption monitor, *Atmos. Meas. Tech.*, 6, 1141-1151, <https://doi.org/10.5194/amt-6-1141-2013>, 2013.

## Instrument information

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### Sensor

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Instrument type:	AEROSOL MONITOR
Manufacturer:	Aerodyne
Model:	CAPS-PMEx

### Sensor resolution

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Observation frequency:	3 minutes
Horizontal coverage:	point measurements
Vertical coverage:	surface

### Sensor location

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Longitude (°):	-22.1
Latitude (°):	14.5
Height above ground (m):	2

## Geographic information

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### Henties Bay

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Location name:	Henties Bay
Platform type:	GROUND STATIONS

## Measured parameter

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### Aerosol extinction coefficient

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Parameter name:	Aerosol extinction coefficient
Parameter keyword:	Atmosphere > Aerosols > Aerosol Extinction
Unit:	megameter-1
Acquisition methodology and quality:	The aerosol extinction coefficient is derived by the instrument without the need of further correction.
Date begin (yyyy-mm-jj):	2017-08-21
Date end (yyyy-mm-jj):	2017-09-12

## Derived parameter

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### Aerosol Extinction

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Parameter keyword: Atmosphere > Aerosols > Aerosol Extinction  
Unit: megameter-1

## Data use information

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Use constraints: The Principal Investigator(s) of the extinction data for the AEROCLO-sA campaign is Paola Formenti (paola.formenti@lisa.u-pec.fr). The dataset will be publicly released after a two-year embargo period ending on October 2019. Meanwhile, data are made available to associated partners by email request to aeroclo-sc@lisa.u-pec.fr upon approval by the project scientific steering committee and the data PI. Please consider authorship for the PI whenever using the data for publications or presentations.

Data policy: AEROCLO data policy  
Database: AEROCLO-sA on BAOBAB  
Original data format(s): ascii text