



AEROSOL
MAGEE SCIENTIFIC

AEROSOL MAGEE SCIENTIFIC AT A GLANCE



KEEPING AN EYE ON THE AIR

Aerosol Magee Scientific products offer a scientifically proven approach to the measurement and understanding of carbonaceous aerosols, supported by leading research.

Accurate measurements are essential for meaningful decision-making and reliable air quality data.

Aerosol Magee Scientific instruments are the first choice for scientists, monitoring agencies and policymakers who are addressing the issues of climate change and the adverse health effects of carbonaceous aerosols.

WHY MEASURE CARBONACEOUS AEROSOLS?

Air pollution by carbonaceous aerosols arises from forest fires, the incomplete combustion of fossil fuels and biomass, traffic and other sources. Real-time measurements and reliable data are essential for meaningful action.

Aerosol Magee Scientific products provide reliable air quality data with continuity over long periods of time. Measurements of Black Carbon particles and other carbonaceous aerosol species are based on leading scientific methods and research.



EXPAND THE FRONTIERS OF AEROSOL SCIENCE WITH CUTTING-EDGE BLACK CARBON INSTRUMENT

AETHALOMETER AE36s

AE36s enables breakthrough aerosol research. Extended wavelength range offers high-quality real-time data on carbonaceous aerosols, advanced source apportionment, Black Carbon and Brown Carbon analysis.

Unique measurements - Detailed and flexible analytical and diagnostic capabilities - Requires minimal attention

SMARTEST WAY TO MONITOR BLACK CARBON: TRAFFIC AND BIOMASS BURNING POLLUTION



AETHALOMETER AE36

AE36 is designed for Air Quality Monitoring specialists to increase their understanding of particulate matter (PM) air pollution. Gain insights into Black Carbon. Accurate data automatically.

**Data you can trust - Easy to use - Comprehensive data
Low Maintenance - Decades of experience**



AETHALOMETER AE33

AE33 is the culmination of almost 40 years of experience and development. It provides accurate data with aerosol speciation on time scales as rapid as 1 second, using our patented DualSpot technology and multi-wavelength optical analysis.

DualSpot™ - Patented technology - Remote access - Source apportionment BB vs FF - Multiwavelength operation



AETHALOMETER AE43

AE43 is a portable Black Carbon monitor. Vertical profiling, emission testing, health effects research, mobile mapping, and field measurements at remote locations are all made easier by the features of the AE43.

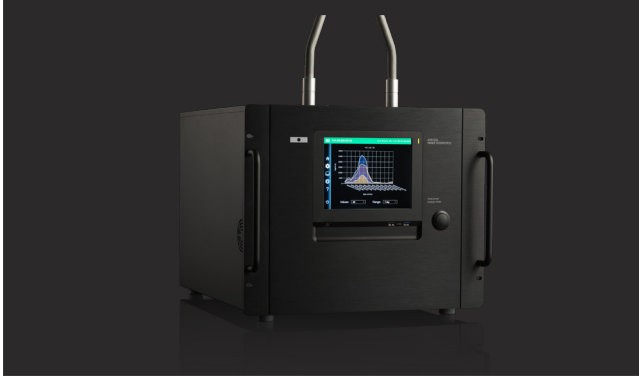
Advanced UI for real-time data charting - Light weight design - External Power Supply for off-grid monitoring

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EFFECTS OF CARBONACEOUS AEROSOLS

These particles pose a threat to life worldwide. They affect the respiratory, cardiovascular, nervous and immune systems. Suspended in the air, Black Carbon particles absorb sunlight and heat the atmosphere. Incorporated into cloud droplets, they reduce the

cloud reflectivity. When deposited onto snow or ice, sunshine is absorbed rather than reflected. This leads to accelerated thawing and contributes to the disappearance of glaciers and the loss of snow and ice cover.



TOTAL CARBON ANALYZER TCA08

TCA08 measures the total carbon content of suspended aerosol particles in real-time for air-quality monitoring applications and research.

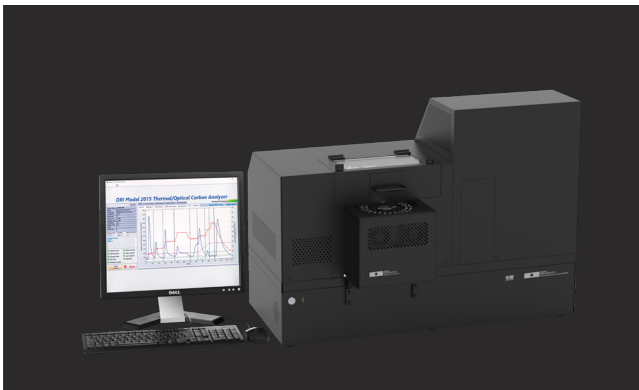
Contains no fragile GLASS, requires no exotic GAS - Rugged and reliable Continuous operation - Quick installation



CARBONACEOUS AEROSOL SPECIATION SYSTEM CASS

CASS is a combination unit of TCA08 and Aethalometer providing a revolutionary scientific OC/EC analyzer that measures Total Carbon, Elemental Carbon or Black Carbon, Organic Carbon, the Primary and Secondary Organic aerosols as well as Brown Carbon.

Complete Carbonaceous Aerosol fingerprint in near-real time - Contains no fragile GLASS, requires no exotic GAS.



DRI 2015 SERIES 2

DRI2015 Series 2 is the most advanced laboratory multi-wavelength thermal/optical instrument for analyzing Organic Carbon, Elemental Carbon, Brown Carbon and temperature-separated carbon fractions on aerosol filter deposits.

EUSAAR2, IMPROVE_A, NIOSH 5040 compatible - Transmission and Reflectance measurement - Autoloader for extended operation 24/7 - Coupling with mass spectrometer - High Sensitivity module



SOOTSCAN OT21

OT21 Optical Transmissometer benchtop analyzer is a simple and robust instrument that measures the Black Carbon content of an aerosol sample collected on a filter, either from ambient air or from source emissions.

Non-contact, non destructive, non-contaminating - Dual wavelength operation - Accepts 25, 37, and 47 mm diameter filters

COMPANY HISTORY

1977 Optical attenuation method developed

1979 Aethalometer concept developed;
research prototype

1980 First field test, first publication

1980 Measurement of BC at remote locations
as tracer for long-range atmospheric
circulation

1986 Recognition of importance of Black
Carbon as tracer for adverse health effects of
diesel exhaust

1996 Manufacturing starts in Slovenia under
OEM contract: AE16 (single wavelength); AE21
(dual wavelength); AE31 (seven wavelengths)

2000 Recognition of importance of Black
Carbon aerosols for climate change forcing

2001 US EPA/ETV approval of AE31
Aethalometer

2007 Aerosol d.o.o. founded in Slovenia for
development of Aethalometers

2010 Pattern approval of AE31 Aethalometer
in People's Republic of China

2012 Launch of AE33 Aethalometer

2014 US EPA/ETV approval of AE33
Aethalometer

2015 License obtained from DRI to
manufacture 'DRI-2015' multi-wavelength
thermal carbon analyzer

2017 Launch of Total Carbon Analyzer

2020 Launch of CASS and Aethalometer AE43

2022 Launch of DRI 2015 Series 2

2023 Launch of Aethalometer models AE36
and AE36s

OUR MISSION AND VISION

Our **mission** is to raise awareness of
carbonaceous aerosols; by providing
knowledge, systems and data that can lead to
policies to make the environment a safer and
healthier place for all.

Our **vision** is to be the leading producer,
partner and provider of systems, services and
support to users in the field of carbonaceous
aerosols; and to maintain a leading research
and development position in the study of
carbonaceous aerosols.

GOOD DATA. GOOD SCIENCE. GOOD POLICY.

Users of Aerosol Magee Scientific
instruments measure Black Carbon and other
carbonaceous aerosols on all continents and
even at remote locations in the Arctic and
Antarctic. They measure air quality under
extreme conditions, such as at high altitudes
in the Himalayas or in the depths reached by
mines. They provide routine data, where air
pollution affects most people.

Our instruments have provided data for
nearly 8,000 published scientific papers and
reports. We present our findings at major
global and regional scientific conferences on
carbonaceous aerosols and their impact on
human health and the state of the planet.



REGISTER YOUR PRODUCT

In order to receive latest updates, notifications about new features and functionalities, access to all technical materials (spec sheets, technical papers, video tutorials) and other resources, we encourage all users to complete the registration form at aerosolmageesci.com/register.



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