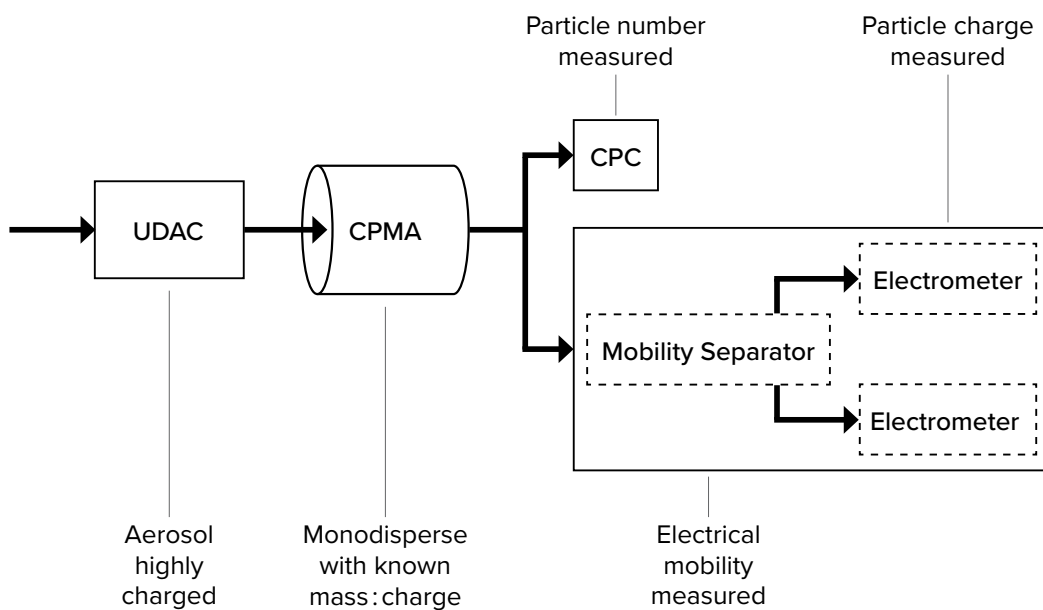


## Cambustion M<sup>2</sup>AS

### Mass & Mobility Aerosol Spectrometer

Simultaneous measurement of aerosol mass, mobility and density distributions



The M<sup>2</sup>AS combines existing UDAC, CPMA and CPC instruments with a novel Mobility Separator. In a single scan, the M<sup>2</sup>AS measures particle mass, mobility, charge state and concentration over a wide measurement range of ~50nm - 3µm.

For measurements of:

Aerosol mass and number concentration

Aerosol particle density

Mobility Diameter

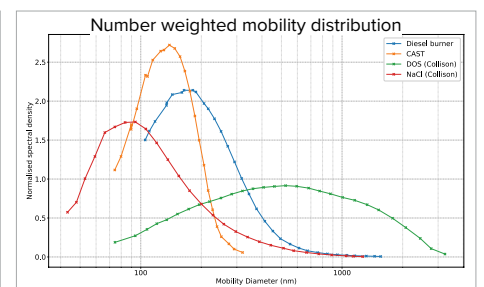
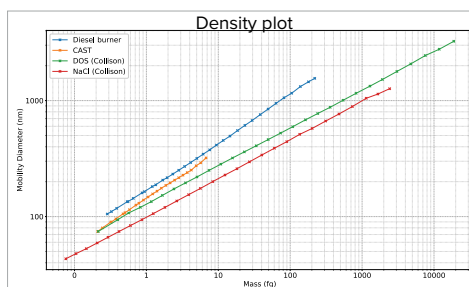
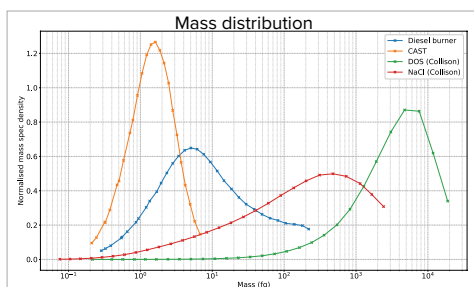
Fractal dimension/mass - mobility exponent

Spherical particles

Combustion agglomerates

Nanomaterial characterisation

Carbon Black & flame pyrolysis production



## Aerodynamic Aerosol Classifier



Wide range aerosol particle size classifier: 25nm to  $>5\mu\text{m}$  *aerodynamic diameter*

No charging, so no radioactive or X-ray source

Not limited by charging efficiency and free from multiple charging artefacts

True monodisperse aerosol selection — alternative to DMA

Continuous scanning (speed ramping) mode for faster scans

## Smoking & Vaping Machine

**New!** Unique lung accessory for complete vapor & aerosol capture in bags ...even puff-by-puff

Collect on filters, sorbent tubes, cold traps & impingers

Compatible with many analytical techniques: HPLC, GCMS...

Reproduce standard & custom smoking/vaping profiles

Measure resistance-to-draw including with lit products

Quality Control + Research & Development applications

Full data logging as standard for insights and traceability



## Centrifugal Particle Mass Analyzer Mk2



Classification of ultrafine aerosol by particle mass:charge ratio

0.2 ag – 1,050 fg range

Switchable positive/negative polarity

Higher throughput due to unique design

Use with the UDAC as part of the CERMS aerosol particle mass standard

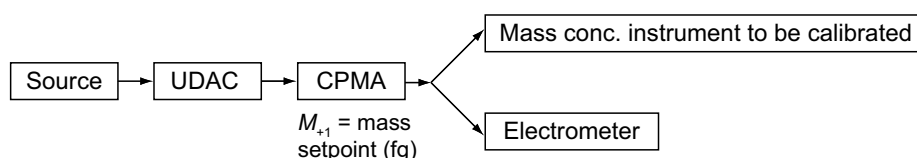
## Unipolar Diffusion Aerosol Charger Mk2



Uses controlled corona discharge to highly charge an aerosol

Use with the CPMA as part of the CERMS aerosol particle mass standard

Switchable positive/negative polarity



$$m_{\text{total}} = \text{mass setpoint} \times \text{indicated electrometer concentration} + \text{zero charge correction}$$

# DMS500 Mk2 Fast Aerosol Mobility Sizer

5 nm – 2.5µm size range

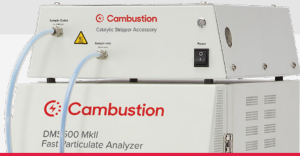
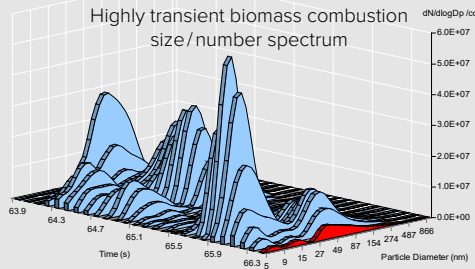
Traceably calibrated for soot and spherical/‘compact’ particles

Optional integrated dilution

Low diffusion losses of small particles

10Hz data

Class leading 200 ms  $T_{10-90\%}$  response time



Optional Catalytic Stripper Accessory removes volatile particles

## New! AF10 Aerosol Flowmeter

Measure gas flow rates, even when the gas contains aerosol particles

An invaluable tool for every aerosol lab, the Cambustion AF10 offers plug & play measurements of flow rates. Standalone operation, with support for interfacing and remote connections.



### Key Features

Wide range of measurable flow

Self-cleaning via integrated brush

Compatible with solid, liquid & mixed aerosol flows

Fully automatic temperature & pressure correction

Traceable calibration certificate

Touchscreen user interface

## Electrostatic Precipitator



Removes charged aerosol particles

Selectable  $d_{50}$

Integrated variable voltage supply

Local agents / distributors:

China: [li.qiang@cambustion.com](mailto:li.qiang@cambustion.com)

France: [arnaud@lvmair.fr](mailto:arnaud@lvmair.fr)

Germany & Austria: [office@ms4.info](mailto:office@ms4.info)

India: [info@tesscorn.com](mailto:info@tesscorn.com)

USA: [usa@cambustion.com](mailto:usa@cambustion.com)

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