# Article information:

AMT - Characterization and source apportionment of organic aerosol using offline aerosol mass spectrometry  
<https://amt.copernicus.org/articles/9/23/2016/>

# Article summary:

1. The Aerodyne Aerosol Mass Spectrometer (AMS) is used to characterize the water-soluble organic fingerprint of ambient particles collected onto conventional quartz filters.

2. The method was applied to 256 particulate matter filter samples collected at 16 urban and rural sites during summer and winter.

3. Results obtained by this technique compare well with those from co-located online measurements, such as AMS or Aerosol Chemical Speciation Monitor (ACSM).

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, as it provides a detailed description of the research conducted and the results obtained. The authors have provided evidence for their claims in the form of data from field deployments of the AMS, which has been compared to data from other online measurements such as ACSM. Furthermore, they have discussed potential limitations inherent to filter-based measurements, such as filter artifacts and limited time resolution.

However, there are some points that could be improved upon in terms of trustworthiness and reliability. For example, the authors do not provide any information on potential biases or sources of bias in their research or data collection methods. Additionally, they do not explore any counterarguments or present both sides equally when discussing potential limitations inherent to filter-based measurements. Finally, there is no mention of possible risks associated with using the AMS for source apportionment or characterization of organic aerosols.

# Topics for further research:

* Bias in source apportionment measurements
* Limitations of filter-based measurements
* Risks associated with using AMS for source apportionment
* Counterarguments to filter-based measurements
* Time resolution of filter-based measurements
* Filter artifacts in source apportionment measurements

# Report location:

<https://www.fullpicture.app/item/866bad8824d81d03e29d9b080ff7a8ec>