C2-C12 NMHC MEASUREMENTS IN TWO SITES WITH CONTRASTED CHARACTERISTICS IN THE GREATER ATHENS AREA OVER THE PERIOD 2015-2019

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2015-2017: Athens Urban Background Site (Thissio Air Monitoring Station - NOA)
- Historical center of Athens, Greece
- Chromatotec “airmoVOC C2–C6” and “airmoVOC C6–C12” automatic gas chromatographs (30 minutes resolution)

2019: Piraeus Coastal Urban Site (Keratsini-Drapetsona Atmospheric Pollution Monitoring Station-KDR)
- 2km westerly of the passenger terminals of the Piraeus Port, Greece
- Chromatotec “AirmoVOC C6–C12” automatic gas chromatograph (30 minutes resolution)

Dominance of fugitive emissions in the coastal urban site regardless the season and enhancement under increased temperatures.

Dominance of traffic related emissions and increase of wood burning impact during winter in the urban background site.

The exclusion of α-pinene by the PMF run doesn’t affect the source apportionment profile

Mean monthly contributions of the modeled NMHC sources; (top) average predicted levels (µg m⁻³) and completeness of the data per period (%).

Concurrent ACSM measurements α-pinene and limonene observed levels could account for at least 22% and 13% of the locally produced SOA in summer and winter respectively.

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