

Supplementary material of:

Optical properties of near-surface urban aerosols and their chemical tracing in a Mediterranean city (Athens)

Dimitris Katsanos¹, Aikaterini Bougiatioti^{2,3}, Eleni Liakakou¹, Dimitris G. Kaskaoutis¹, Iasonas Stavroulas^{1,4}, Despina Paraskevopoulou^{1,3}, Maria Lianou¹, Basil Psiloglou¹, Evangelos Gerasopoulos¹, Christodoulos Pilinis⁵, Nikolaos Mihalopoulos^{1,2*}

¹IERSD, National Observatory of Athens, Lofos Koufou, Palaia Penteli, 15236, Athens, Greece

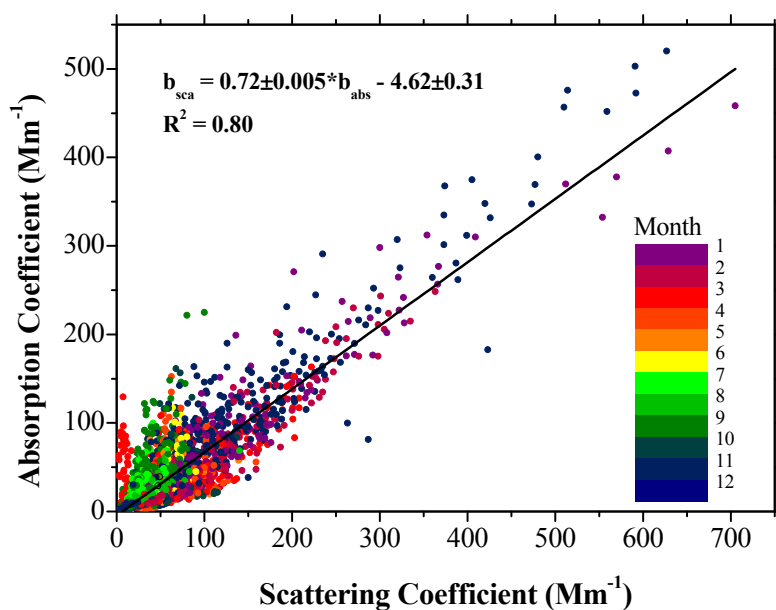
²Environmental Chemical Processes Laboratory, Department of Chemistry, University of Crete, 71003 Crete, Greece

³School of Earth & Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA 30332, U.S.A.

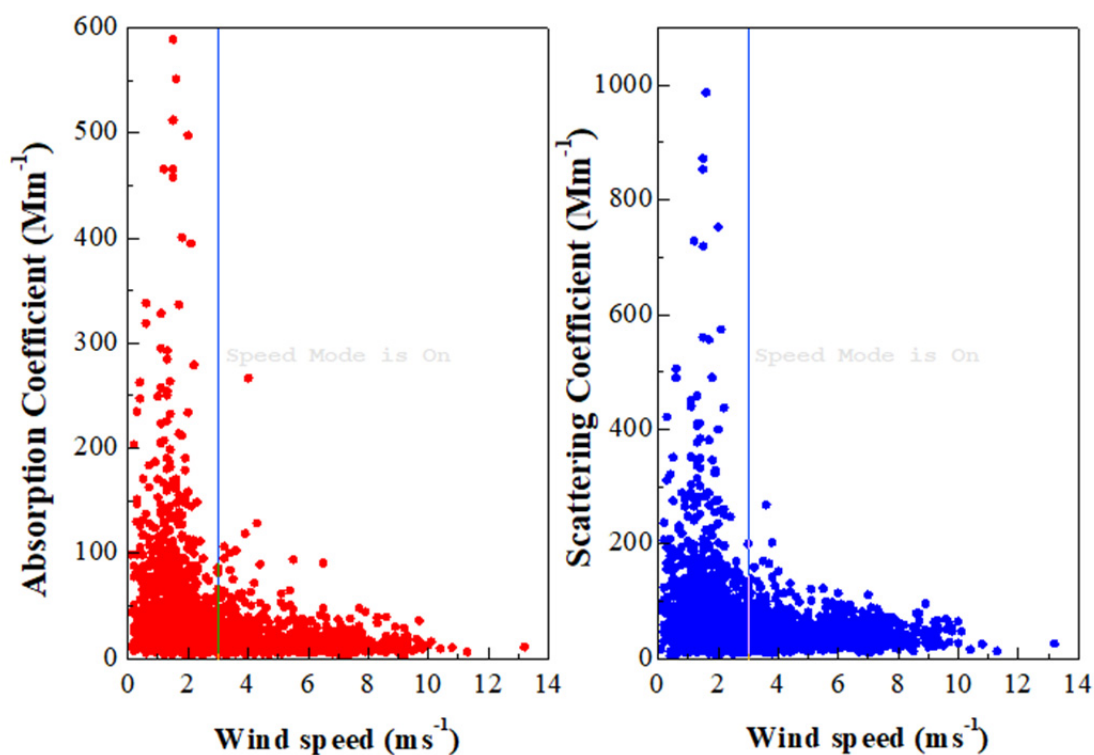
⁴Energy Environment and Water Research Center, The Cyprus Institute, Nicosia 2121, Cyprus

⁵Department of Environment, University of Aegean, Mytilene 81100, Greece

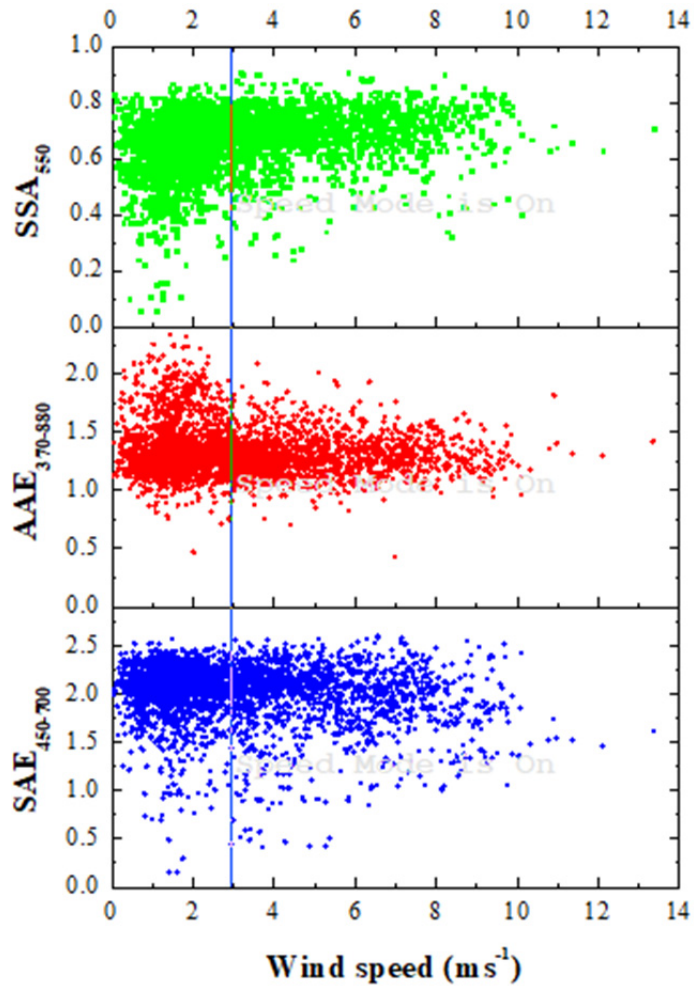
*Corresponding author: N. Mihalopoulos, nmihalo@noa.gr



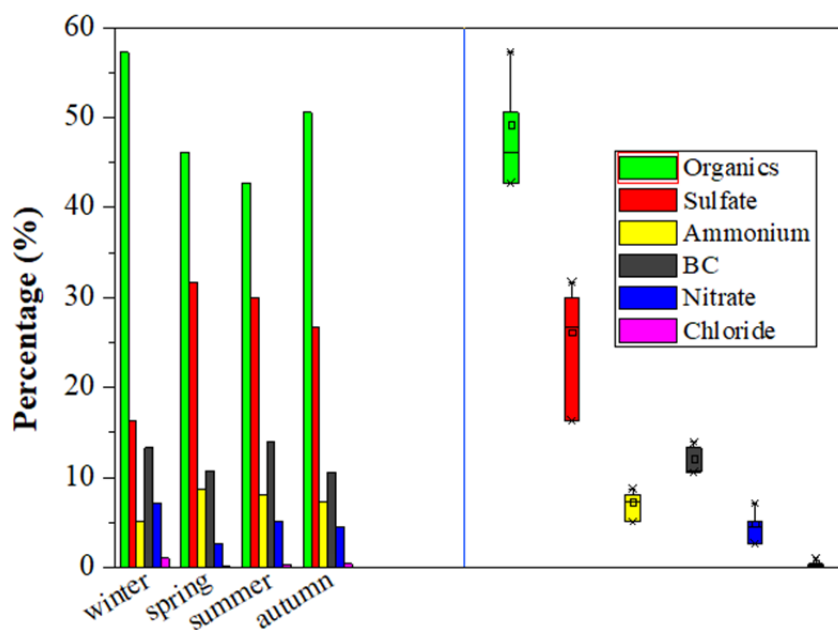
Supplementary Figure 1: Scatter plot between the hourly b_{sca} (550 nm) and b_{abs} (520 nm) values in Athens during October 2016 – September 2017. The colored scale corresponds to the months.



Supplementary Figure 2: Wind speed vs scattering (at 550 nm) and absorption (at 520 nm) coefficients on hourly basis in Athens during October 2016 – September 2017. The threshold of 3 ms^{-1} is defined by the vertical blue line.



Supplementary Figure 3: Wind speed vs SAE₄₅₀₋₇₀₀, AAE₃₇₀₋₈₈₀ and SSA₅₅₀ on hourly basis in Athens during October 2016 – September 2017. The threshold of 3 ms⁻¹ is defined by the vertical blue line.



Supplementary Figure 4: Seasonal percentage (%) contribution of each chemical component to the PM₁ mass measured via ACSM at Thissio, Athens during October 2016 – September 2017. **The right part of the graph (floating bars) shows the contribution of each chemical component in box-whisker chart view.** Within the boxes, the line corresponds to the median and the square to the mean contribution.