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The Humic Like Substances in urban atmospheres

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Several studies have shown that "HUmic LIke Substances" (HULIS) may represent a significant fraction (15 and 40 % in mass) of the organic carbon (OC) of atmospheric aerosols. Studies present a seasonal sensitivity of their concentration with two maximum values: one in summer and the other in winter. These variations come from the various sources of formation and emission from the HULIS: ageing of the products of combustion of the biomass (winter) and formation of secondary aerosols i.e. of particles formed by chemical reaction(summer).

These HULIS fractions were quantified and characterized for samples collected in various conditions, including source areas, polluted atmospheres, during winter- and summertime etc. The comparison of all of these results, together with that of other ancillary data, allows some better understanding of sources, size distribution, and variation of concentrations of these HULIS factions.