Ion and aerosol concentrations in a tourist seashore site during the summer seasons

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Cluster ions and aerosols are atmospheric particles, which participate and influence on several global processes. On other hand, both these particles interact with each other through recombination and attachment processes. Monitoring the variation of their concentrations gives valuable information not only on their reciprocal interactions, but also on their presence and as a consequence on their influence on atmospheric processes that these particles take part.

In this paper there a study of the variation of number concentrations of cluster ions and aerosol particles in sub-micrometric and super-micrometric size ranges are presented. Monitoring campaign was conducted at a tourist site in Adriatic seashore. The entire measurement procedure was spread in three years (2009-2012).

Overall results indicate the high presence of both these atmospheric particles. The main sources of these particles in the monitoring area are combustion activities, sea salt and long range transport.