



Evaluation of urban air quality: results of a school experimentation

M. Maione (1), G. Mangani (1), and Teachers and Students of Liceo Marconi (2)

(1) University of Urbino, Italy, (2) Liceo Scientifico Marconi, Pesato, Italy
(michela@uniurb.it)

Pesaro (Italy) is a town on the Adriatic sea with a population of about 92,000 whose main points in local economy are fishery, furniture industry and tourism.

During the winter, exceedences of the EU legal limits for PM₁₀ are frequently recorded due to a combination of emissions and meteorological factors, like atmospheric stability and shallowness of the marine boundary layer which can be advected over coastal areas.

In order to raise awareness on problems related to air pollution and also to introduce secondary school students to a scientific approach thus exploiting their attitudes towards science, an experimentation was carried out in the frame of a project involving a scientific secondary school and the faculty of environmental sciences of the University of Urbino.

The approach used was the organisation of a sampling campaign based on a combination of gas-phase pollutants and particulate matter analyses, the former being carried out using passive samplers and instrumental chemical analysis, the latter using a high volume sampler and a laser spectrometer. Secondary school students have been involved in the planning of the sampling strategy as well as in the laboratory experimental work.