

AIR POLLUTION CONCENTRATION LEVELS IN THESSALONIKI DURING THE PERIOD 1989-1999

M.I. PETRAKAKIS*, A.G. KELESSIS*, P.N. TZOUMAKA* and K.I. NIKOLAOU**

* Environmental Department, Municipality of Thessaloniki, Papanigopoulou 7,
Thessaloniki 54630, Greece.

** Organisation for the Master Plan and Environmental Protection of Thessaloniki,
105 Vas. Olgas St., Thessaloniki 54643, Greece.

ABSTRACT

This study reports systematic ambient air pollution measurements derived from the five monitoring station of the Municipal Air Quality Network of Thessaloniki. The measurements presented here span from 1989 to 1999. The annual and spatial variation of SO₂, smoke, CO, NO₂, O₃ and their causes are discussed in order to provide useful information of the air quality levels in the urban area of the city. The analyzed data exhibit a significant negative trend in the SO₂, smoke and CO concentrations. On the other hand, NO₂ measurements didn't show a significant change in the levels, during the eleven years period, while a positive trend is estimated for the O₃ concentrations, especially over the northern area of Thessaloniki. The diurnal variation of SO₂ and O₃ show a steady increase in the formation of photochemical pollution in the city of Thessaloniki, throughout the referenced period.