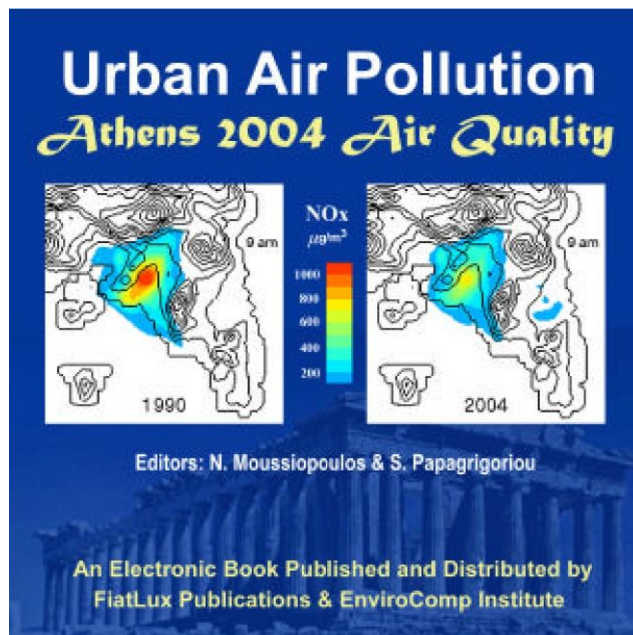


*An Electronic Book from
the EnviroComp Institute*

Urban Air Pollution Athens 2004 Air Quality

Edited by N. Moussiopoulos and S. Papagrorgiou

This electronic book presents a peer-reviewed series of chapters aiming at forecasting air quality in the Greater Athens area in the year 2004 taking into account the infrastructure changes which are currently ongoing or are planned to be soon implemented in the region. Among these changes are important road construction projects which will significantly modify, improve, and modernize the existing transport system in Attica. It should be noted that all ongoing public works will be completed by 2002 - two years before the Athens' Olympic Games in 2004. These studies take also into account several important interventions associated with the control of emissions from cars, central heating, industry, and other activities.



This electronic book is distributed on CD-ROM and can be read, examined, searched, and printed with any computer system (PC/Mac/Unix) using the free software (Adobe Acrobat Reader) included as part of the CD-ROM.

The book is fully hypertexted and contains a large number of colour pictures and pointers to Internet Web sites.

Table of Contents

SECTION 1: AIMS OF “ATHENS 2004”

Air pollution in Athens: A review

N. Moussiopoulos

Ongoing public works relevant to air quality in Athens

S. Papagrighoriou

Concept of the “Athens 2004 Air Quality Study”

N. Moussiopoulos, S. Papagrighoriou

SECTION 2: EMISSIONS

Traffic conditions in the Greater Athens area by the year 2004

C. Zekkos, C. Drimeris, A. Kouzis, V. Triviza

Forecast of road traffic emission for the Greater Athens area

Z. Samaras, A. Andrias, T. Zachariadis, M. Aslanoglou,

Estimation of the industrial emissions for the Greater Athens area for the year 2004

I. C. Ziomas, P. Tzoumaka, D. S. Balis, C. S. Zerefos

Impact of natural gas

E. Toleris

Synthesis of the 2004 emission inventory

Th. Arvanitis, Th. Nitis, G. Theodoridis, P.M.Tourlou, Ch. Naneris, N. Moussiopoulos

SECTION 3: NO_x CALCULATIONS

ADREA-I predictions on NO_x concentrations over the Greater Athens area

S. Andronopoulos, J.G. Bartzis, M. Varvayanni, N. Catsaros

Passive tracer studies with the model CTC for the Athens 2004 project
A. Martilli, A. Clappier, B. Calpini, H. Van der Bergh, B.C. Krüger

Simulation of NO_x concentration distributions in the Greater Athens area
using actual and future (2004) emission data
K. Nester, F. Fiedler

Predictions of the current and future NO_x levels in the Greater Athens area
with the European Zooming Model
Th. Arvanitis, G. Theodoridis, K. Karatzas, N. Moussiopoulos, P. Sahm

SECTION 4: OZONE CALCULATIONS

ADREA/UAM photochemical modelling over Greater Athens area
S. Andronopoulos, J.G. Bartzis, A. Passamichali

Photochemical studies with the model CTC for the Athens 2004 project
A. Clappier, A. Martilli, B. Calpini, H. Van der Bergh, B.C. Krüger

Estimations of the ozone concentrations in the Greater Athens area for the
year 2004
I. C. Ziomas, P. Tzoumaka, D. S. Balis, E. Kosmidis and C. Zerefos

Predictions of current and future photochemical air pollution levels in Athens
with the European Zooming Model
F. Kirchner, P. Sahm, P.M. Turlou, N. Moussiopoulos

SECTION 5: RESULTS AND PERSPECTIVES

Intercomparison of study results with regard to current and future air
pollution levels in Athens
S. Papargoriou, N. Moussiopoulos, G. Theodoridis

Assessment of additional interventions for a further air quality improvement
in Athens
N. Moussiopoulos, K. Pattas, Z. Samaras