Geophysical Research Abstracts, Vol. 9, 04862, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-04862

© European Geosciences Union 2007



Intercomparison of the different dispersion schemes of the atmospheric pollutants in the specific conditions of an impact zone

A. Popescu (1), **S. Stefan** (2)

(1)Regional Environmental Protection Agency Pitesti, Romania, e-mail: alex_pitesti@yahoo.com ,(2)University of Bucharest, Faculty of Physics, Dept. of Atmospheric Physics, P.O.Box. MG-11, Bucharest, Romania, e-mail: sabina_stefan@yahoo.com

The aim of this paper is to identify the efficient dispersion scheme of atmospheric pollutants for a polluted region with complex terrain. The concentration values of NO2 and SO2 pollutants were obtained by using six classical schemes for parameterization of vertical and horizontal dispersion. For simulations, a simple Gaussian dispersion model of plume type was used. The simulated concentration values of atmospheric pollutants from the interest area and the measured values in six sites of this area were compared. Generally, the best results were obtained using the Briggs dispersion parameters, but a very important conclusion of the study was that for the chosen impact zone, the parameterizations must be different for the different monitoring sites.