



Some aspects of spatial distribution of dew chemistry in Poland

M. Sobik (1), Ż Polkowska (2), and M. Błaś (1)

(1) Department of Climatology and Environment Protection, University of Wrocław, 8 Kosiby Street, PL-51670, Wrocław, Poland (sobik@meteo.uni.wroc.pl, +48-71-372-94-98), (2) University of Technology, Chemical Faculty, 11/12 G. Narutowicza St., 80-233 Gdańsk, Poland, (zaneta@chem.pg.gda.pl, +48 58 347-26-94)

We intend to present the results of one year long monitoring program of dew/hoarfrost chemical composition and pollutant deposition which takes place in this way. Within the present project dew collectors were installed at 12 sites representing different geographic regions of Poland and, on the other hand, different types of landuse. Samples are collected with the use of unified equipment and methodology. The deposited volume of dew/hoarfrost and accompanying weather conditions as well as ionic composition is controlled and will be controlled at these sites over one year until the end of the ongoing winter (February 2010).

We are planning to present a complex description of dew/hoarfrost inorganic and organic chemistry and to calculate the amount of pollutant load deposited in this way. Seasonal variations in dew/hoarfrost chemistry will be presented with the emphasis put on the controlling role of some selected atmospheric processes. Overall contribution of dew/hoarfrost to total pollutant deposition will be examined with consideration of its relation to both dry and wet deposition pathways. The final aim is the assessment of the observed dew/hoarfrost pollution structure in terms of emission sectors defined by SNAP categories.