SOMO 35 at Slovak ozone monitoring stations during the period 1992–2005

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A b s t r a c t : Currently, surface ozone is the most serious regional problem of air pollution over Europe. Therefore European countries have paid fair attention to this harmful pollutant. Governments support surface ozone monitoring programmes and implement measures to control the emissions of ozone precursors. The World Health Organization (WHO) recommends a new indicator for the health impact assessment - SOMO 35 (the Sum of Ozone Means Over 35 ppb). The calculated exposures of the SOMO 35 at Slovak ozone monitoring stations during the period 1992–2005 are presented in this paper. SOMO 35 values in Slovakia range considerably (from 0 to 9536 ppb.days). The lowest ozone exposures are at typical urban stations, higher at suburban and rural stations. Maximal ozone loads are at mountain peak stations. The highest contributions to yearly sum of SOMO 35 are from April to August. SOMO 35 has considerable inter-annual variability (like ozone concentrations and other indices) caused by the variation of meteorological conditions. The highest ozone exposures appeared in 2003 at most of the stations.

Key words: surface ozone, SOMO 35, Slovak stations

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