

## Heavy Metals in PM<sub>2.5</sub> Aerosols in Urban Sites of Győr, Hungary

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**Abstract :** Atmospheric concentrations of some heavy metal compounds (Pb, Cd, Ni) and the metalloid As were identified and determined in airborne PM<sub>2.5</sub> particles in urban sites of Győr, northwest area of Hungary. PM<sub>2.5</sub> aerosol samples were collected in two different sampling sites and the trace metal(loid) (Pb, Ni, Cd and As) content were analyzed by atomic absorption spectroscopy. The concentration of PM<sub>2.5</sub> fraction was varied between 12.22 and 36.92  $\mu\text{g}/\text{m}^3$  at the two sampling sites. The trend of heavy metal mean concentrations regarding the mean value of the two urban sites of Győr was found in decreasing order of Pb > Ni > Cd. The mean values were 7.59  $\text{ng}/\text{m}^3$  for Pb, 0.34  $\text{ng}/\text{m}^3$  for Ni and 0.11  $\text{ng}/\text{m}^3$  for Cd, respectively. The metalloid As could be detected only in 3.57% of the total collected samples. The levels of PM<sub>2.5</sub> bounded heavy metals were determined and compared with other cities located in Hungary.

**Keywords :** aerosol, air quality, heavy metals, PM<sub>2.5</sub>

**Conference Title :** ICESE 2017 : International Conference on Environmental Science and Engineering

**Conference Location :** Vienna, Austria

**Conference Dates :** June 21-22, 2017