CHEM 4

Distribution of inorganic metals in blood of adults at urban area in Korea

Ho-Hyun Kim, Yeong-Wook Lim, Ji-Yeon Yang, Moon-Ki Ho, Dong-Chun Shin

The Institute for Environmental Research, Yonsei University, seoul, korea

The objective of this study was to describe the distribution of metals concentrations in blood of adults who were not occupationally exposed in Korea. The blood samples were obtained between February and August 2001 from volunteer adults in urban area of Korea. 66 male participants were 46 (20-75) years of age and 74 female were 40 (20-69) years of age.

The levels of metals in blood were observed the log-normal distribution, and we calculated geometric mean (GM) and geometric standard deviation (GSD). The GM levels of metals in blood of the men were 65.88$\mu g/\ell$, 1.01$\mu g/\ell$, 0.23$\mu g/\ell$ and 0.15$\mu g/\ell$, for Pb, Cr, Ni and Cd, respectively. The GM levels of the women were 58.49$\mu g/\ell$, 1.66$\mu g/\ell$, 0.30$\mu g/\ell$ and 0.10$\mu g/\ell$, for Pb, Cr, Ni and Cd, respectively. The levels of Pb-B and Cd-B were significantly higher non-smoker than smoker, whereas those of Cr-B and Ni-B were not different by smoking habit.