

## **Distribution of trace elements in hairs**

Y. Katoh, Y. Gotoh, K. Yamamoto

Tokyo Metropolitan University of Health Sciences  
7-2-10 Higashiogu, Arakawa, Tokyo 116-8551, Japan

### **Abstract**

Body hairs, which can easily be collected and handled, are known to be effective indices of the mineral element accumulation and metabolism within the body and excretion from the body. Since hair on the head are constantly exposed to external stimulants, pubic hair, which are more or less intact from external pollutants, were chosen for analysis. The concentration levels mineral components that greatly differ between head hair and pubic hair were those of Si, Fe, Ni, Se, and Ti. Silicone, in particular, was found in greater concentration. This is explained by the fact that Si compounds are frequently detected in hair coatings. The limited range of mineral element distribution and slow hair growth of pubic hair result in the increased levels of elemental concentration. There explain the availability of pubic hair as effective indicators the mineral element concentration in human body.