

Application of INAA to determine major elements concentrations in head hair of street children of Isfahan city, Iran

ABSTRACT

The street children phenomena and the number of street children is an increasing social problem in Isfahan and other big and growing towns. Because of the number of street children and the way that they affect society in childhood and when they become old, it is important to study their health and have baseline data on their health problems. Hair element analysis is an important tool in the nutritional and environmental pollutions and measuring pollutions and measuring elemental concentrations in recently-grown hair provides a good way of studying their health. This study aimed to assess major element concentrations in the hair of street children in Isfahan using instrumental neutron activation analysis method. Six major elements (Ca, Cl, K, Mg, Na and S) of 17 Iranian street children (Isfahan) were determined. Data analysis found different profiles of the concentrations of Ca, K, Mg and S in samples. These results were discussed with reference to show of nutritional and environmental effects.

Keyword: Hair; INAA; Isfahan; Major elements; Street children