Elemental contents in hair of children from Zanzibar in Tanzania as bio-indicator of their nutritional status

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Abstract

Nutritional status and toxic elements body burden were evaluated in hair of children living in Zanzibar. 18 samples were collected from Zanzibar town and 19 samples from Nungwi village, which is approximately 64 km from Zanzibar town. The analysis was carried out using instrumental neutron activation analysis (INAA). The concentration ranges obtained in this study overlap with the published elemental values of healthy children of the same age group. The concentration levels of K, Zn, Cu, As and Co in hair of children from Zanzibar town were higher than from Nungwi whereas levels of Mn, Br and Sr were lower.

Keywords: