Poster presentation

PW12

Contribution to safety assurance of fish consumed at São Paulo city by means of trace element determination

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Fish consumption has increased in Brazil in recent years, imposing higher concern over the presence of contaminants and stronger safety assurance measures by Brazilian health authorities. In general, the occurrence of pathogens as well as potentially toxic inorganic and organic compounds is related to water contamination and environment pollution. Abnormal levels of such contaminants may be above the safe limits for human consumption. In this study the mass fraction of elements in some of the most consumed fish species in São Paulo city were analyzed by Instrumental Neutron Activation analysis (INAA) and Atomic Absorption Spectrometry (AAS). Analyzed species were whitemouth croaker (*Micropogonias furnieri*), common snook (*Centropomus undecimalis*), smooth weakfish (*Cynoscion leiarchus*) and Brazilian sardine (*Sardinella brasiliensis*). Ten specimens of each species were purchased at the main supply center for the population of the metropolitan area of São Paulo. Analyzed elements were As, Br, Co, Cs, Fe, K, Na, Rb, Se and Zn by means of the comparative method of INAA and Cd, Hg and Pb were determined by AAS. Obtained results were compared to the limits of existing national and international legislations, which set the maximum permitted mass fractions for elements in food. Except for the common snook, As mass fractions were above those permitted by the Brazilian legislation (1.0 mg kg^{-1}) for the analyzed species.