

Multi element analysis of sexual gonads of scallops by PIXE

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Abstract

Sexual gonad of Scallop is edible organ and used for cooking. In terms of the analysis of elements in food, multi element analysis of sexual gonads of scallops (nine from female, eighteen from male) on the market were done by PIXE. Sexual gonads were freeze-dried, pulverized by the mill, separated by 200 mesh sieve, and the fine powder passed through the sieve was used for analysis. In the results obtained for the levels of 22 elements (Na, Mg, Al, Si, P, S, Cl, K, Ca, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Br, Rb, Sr, Sn, and Pb), Sn values had remarkable characteristics: three out of 21 sexual gonads had high values over 100 ppm.