

Proposal

A long term monitoring program has been carried out in INRNE for more than 20 years. The subject of the program is “Investigation of different element concentration of marine environment – sediments, algae, mussels etc.” The samples were measured by the follow methods – alpha spectroscopy, gamma spectroscopy, AAS and Energy Dispersive X-Ray Fluorescent Analysis. The obtained results show, that no serious contamination was found along the Bulgarian Black Sea coast.

It will be of great interest for us to check our results with another analytical method, like PIXE, in order to obtain more reliable results for the elements concentration, important from ecological point of view and to determine elements, whose can't be determinate by the other used methods. The well known sensitivity and low detection limits of PIXE methods will increase the possibility to discover new elements, which concentration are under detection limits of the other applied methods.

Such results will be very important for monitoring of ecological status of marine environment. Measurement of diverse samples allows to trace the transfer of hazardous elements through the trophic chain from biota to man.

In the frame of such collaboration exchange of samples and standard materials can be performed, in order to improve the methodology and calibration procedure of both of the collaborating laboratories.

Taking into account the mention above, we would like to send you about 10 samples from sediments and different type algae, which are of most interest for our investigation. In exchange we will send you our results, obtained with EDXRFA and AAS for comparison.

With best regards

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