

Hair elements of female Self-Defense officials concerned with the Iwate prefecture area-along-the-shore search after the 2011 off the Pacific coast of Tohoku earthquake

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Abstract

The hair elements of the female Self-Defense officials concerned with the Iwate Prefecture area-along-the-shore search after the 2011 off the Pacific coast of Tohoku Earthquake were analyzed by PIXE. This research was planned in order to investigate how much the harmful elements in the submarine soil ashore left behind after tsunami was taken into the human body.

After tsunami, the harmful elements in the soil which remained ashore dispersed in the air with dryness, and was taken into the human body from respiratory and a digestive organs. And then those elements remained in hair, we have chosen a hair for analyzing by PIXE.

The rise of the harmful elemental concentration congruous at dispatch time was not observed in the hair of the Self-Defense officials fortunately. We surmised that wearing of a mask and goggles was effective.

From now on, not only the resident of a stricken area but the volunteer who goes into a stricken area by support service must not forget existence of the suspended substance in the air. We think that measurement of a floating-among the air scattering substance should be included in the environmental research of a stricken area.