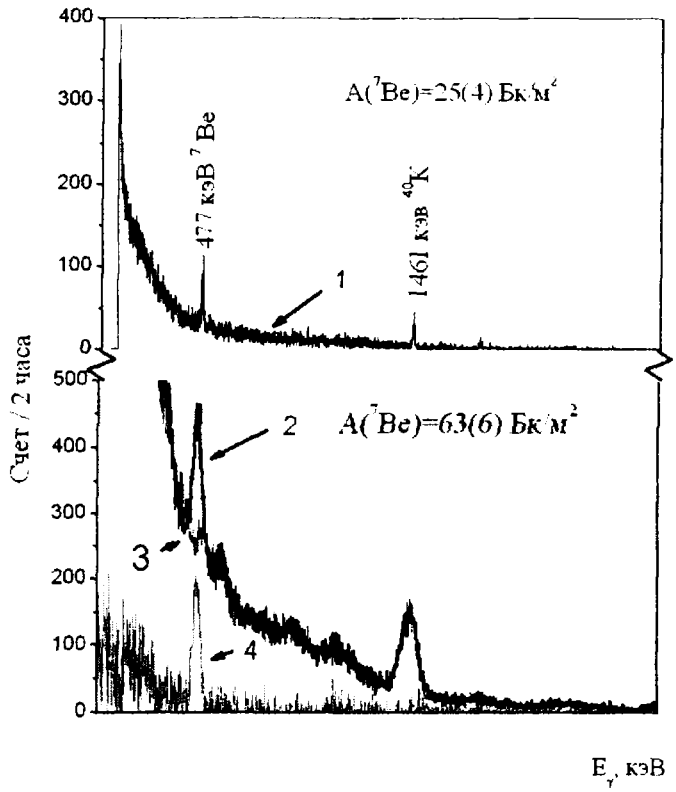
By used method of its fallout on Earth surface it is collected on gauze plane table 1 m^2 area placed in metal ditch. In a case of accumulation of rain and/or snow water in metal ditch it is evaporated until dry remainder, and exposed gauze is ashed in muff oven at temperature $t \leq 400^0C$. Ash and dry remainder (8-25 g) is packed in small package and its spectra (see 1 on pic.) is measured on γ–spectrometer with SSD. It is quite possible evaporation of the part of ^7Be in this method.



We have worked out method that exclude this opportunity and rising effectiveness of ^7Be γ–activity. It concludes from: gauze is consequencely moisten with water from the ditch and dried at temperature $t \sim 60^0C$. Procedure is kept until full drying of ditch. Afterwards, gauze (~100) is packed in one-liter Marinelli vessel and its γ-spectra (2) is measured on scintillator γ-spectrometer with NaJ(Tl) Ø63x63 mm. Background contribution (3) in this spectra is established at measurements of unexposed gauze. The resulting spectra after subtraction of background contains only component stipulated by γ-activity of 478 keV ^7Be (4) by which it is determined.

ATMOSPHERIC FALLOUTS OF ^7Be, WEATHER PHENOMENA AND SOLAR ACTIVITY

Kungurov F.R. [1], **Muminov A.T.** [2], **Muminov I.T.** [2], **Muhammedov A.K.** [1], **Safarov A.N.** [1]

[1] *Samarkand State University, Samarkand, Uzbekistan*

[2] *Institute of Applied Physics, Tashkent, Uzbekistan*

Radionuclide ^7Be ($T_{1/2}$ = 53,3 d, E_γ = 478 keV) is formed in upper layers of atmosphere in splitting reactions of oxygen and nitrogen nuclei with cosmic rays. Intensity of its formation is linked with solar activity and fallouts to Earth surface with geophysical and weather phenomena.

During the period of 2002-2003 monthly gauze pads were exposed in Samarkand. The fallout activities of ^{7}Be were determined by the area of peak of full absorption 478 keV of ^{7}Be in γ-spectrum of exposed pad measured by γ-spectrometers with Ge(Li) and by the scintillation detector. The research results are compared with corresponding data about amount of precipitation and total monthly area of sun-spots (measured in solar disk area - Sp) in table.

Table

	Month	1	2	3	4	5	6	7	8	9	10	11	12	AM [3]
A, Bq/m^2	**2000**	9 (2)	13 (2)	19 (3)	25 (3)	15 (3)	14 (2)	4 (1)	<1	3 (1)	4 (1)	3 (1)	8 (1)	9,8
	2003	3 (1)	10 (2)	7 (2)	6 (2)	2 (1)	4 (1)	<1	<1	<1	10 (2)	27 (3)	23 (3)	7,9
P, mm [1]	**2000**	45	85	115	140	45	1	1	1	1	5	20	95	46,2
	2003	13	41	93	86	32	15	1	1	1	10	53	69	34,3
Sp, 10^{-8} [2]	**2000**	975	625	643	1253	1711	895	1293	1519	1498	1338	1335	325	1112
	2003	589	215	761	701	628	749	768	563	376	1744	1049	439	715

1) data of hydrometeorological department of Samarkand region
2) data of Astronomical institute of Academy of Sciences of Republic of Uzbekistan
3) AM – averaged values of monthly average data

Consideration of this data points to existence of correlation between their magnitudes.


UZ0502670

RADIATION CHEMICAL REMOVAL OF CHLOROFORM FROM DRINKING WATER

Gurbanov M.A., Gurbanov A.H., Abdullaev E.T.,Ahmedov S.A., Ibadov N.A.
Institute of Radiation Problems, Baku, Azerbaijan

It is known that Chlorine, used for disinfections of drinking water, reacts with the present human substances and increase the toxicological effects of such substances/ the main product of these reactions is chloroform. The use of radiation technology for cleaning of small amounts of pollutants in waste waters and smoke gases is studied in detail. But radiation treatment of drinking water for improving of quality of water is studied only in few researches