

## RADON IN SPRINGS OF ZARAFSHAN RANGE

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The contents of <sup>222</sup>Rn ( $T_{1/2}=3,83$  days) in springs of Zarafshan range at the area of Big Uzbek highway (at heights H from 875 m up to 1640 m above sea level) from Amankutan village (north slope) until Kainarbulok village (south slope) was researched. Water probes were selected in 1 liter Marinelly vessels, then hermetically sealed and their spectrums were measured on scintillator spectrometer with NaJ (Tl) Ø63x63 mm crystal. Activities of <sup>222</sup>Ra in researched probes were determined by comparison of difference between spectrum probes, measured with extraction  $\Delta t \geq 4$  days and spectrum of <sup>226</sup>Ra standard source (at  $E_\gamma > 200$  keV area) from OMACH set with filler density of 980 g/l.

Selections of probes were done in different seasons of 2003 and 2004. Maximum activities were observed in June-July, and minimum – in September-October. There are traced difference in obtained results (see table) between water activities at north and south slopes of range, and also some of their correlation with height H of spring location.

H, m. a. s. <sup>1)</sup>	North slope	$A_{min}-A_{max}$ , A, Bq/l	H, m. a. s.	South slope	$A_{min}-A_{max}$ , A, Bq/l
1010	Kizilbash	20-37	1580	Spiral	62-84
1060	Issiq buloq	53-64	1500	Yon buloq	95-120
1260	Tosh buloq	37-48	1460	Kush buloq	85-95
1640	Opolzen'	91-110	1310	Rokhat	90-100
1630	Tahtakoracha	63-91	875	Qaynar	25-31

<sup>1)</sup> m.a.s. – meters above sea



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## ENVIRONMENTAL NATURAL RADIOACTIVITY CONCENTRATIONS OF TEKİRDAĞ

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In this study, the environmental natural radioactivity concentrations of Tekirdağ, a city in the region of Marmara in Turkey, have been measured. Gamma spectrometric analysis of the soil samples collected from 40 points of Tekirdağ was performed by using an HPGe detector



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