

RADON CONTENT OF MISASA HOT-SPRING, JAPAN

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The content of radon and other radioactive elements of Misasa Hot-Springs, Tottori, Japan which are known as the radioactive thermal springs, has been investigated by many investigators. As a result, it has been shown that the radon content is high in these springs.

The author found that the thermal spring of Hisai-no-Yu, Misasa, has an extremely high radon content in the sample water taken from its orifice at the bottom of the bath-tub.

The radon content was measured with the L. M. Fontactscope, and the content of other elements is determined respectively of same sample. The results obtained are as follows:

Date	Time of Sampling	Weather	Temperature °C	Water Temp.	Cl⁻ mg/l	SO₄²⁻ mg/l	HCO₃⁻ mg/l	Fe⁺⁺ mg/l	Rn Mache
1951									
Sept. 6	a.m. 10.00	fine	25.0	42.2	222.4	67.11	145.2	0.280	456
"	p.m. 3.50	"	27.1	42.2	—	—	—	—	422
8	" 2.50	cloudy	25.6	42.2	—	—	—	—	451
9	a.m. 9.45	cloudy some times drizzly	24.4	42.0	226.8	—	147.1	—	413
10	" 9.00	"	24.5	42.1	232.4	65.89	145.9	0.095	395
11	" 9.30	cloudy	24.0	42.0	—	—	—	—	364
12	" 9.00	fine	19.0	41.7	—	—	—	—	346
"	" 10.30	"	20.4	41.8	235.4	—	143.6	—	405
"	p.m. 1.25	"	25.2	42.0	241.4	68.68	148.3	—	379
"	" 2.45	"	26.0	42.0	238.9	69.08	149.0	—	394
"	" 4.15	"	27.0	42.0	241.4	68.34	147.3	—	399
"	" 9.23	"	17.5	41.7	—	—	—	—	425
13	a.m. 8.45	cloudy	21.2	41.6	224.4	—	144.7	—	431
"	" 10.03	"	22.4	41.6	236.7	—	147.5	—	364
"	" 11.20	"	23.8	41.8	238.4	—	147.5	—	335
"	p.m. 2.01	"	26.3	41.8	239.4	—	147.0	—	318
"	" 3.12	"	27.3	42.0	230.4	—	146.8	—	375
"	" 4.38	"	27.0	42.0	233.9	—	147.3	—	329
14	a.m. 9.12	"	22.3	41.8	245.4	—	144.9	—	336
19	" 9.05	"	20.7	39.9	266.3	71.53	145.5	—	277
21	p.m. 1.23	fine	21.0	40.2	290.3	79.08	—	—	284
26	a.m. 9.45	cloudy	22.6	39.3	335.4	85.79	155.3	0.130	190
Oct. 1	" 9.10	"	21.2	39.2	379.8	84.92	162.6	—	176

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As for the cold mineral springs, extremely high content of radon is known, e.g. at Oberschlema (Hindenburgquelle), Brambach (Wettingquelle), Masutomi, Ikeda etc. But the radon content of Hisui-no-Yu shows one of the highest values among the thermal springs.

Further studies of this work will be made and more detailed results will be given at a later date.

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