MUGLA UNIVERSITY
Young, Dynamic, Progressive

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REPORT

TEST REPORT OF GAMMA –RAY RADIATION SHIELDING MATERIAL EFFICIENCY

The Gamma-Ray Radiation Shielding material which is produced by Şükran CAN is tested by our laboratory. The purpose of this report is to measure the efficiency of this shielding material.

661,7 keV , 1173,2 keV and 1332,5 keV energies of electromagnetic wave radiations is sent on this shielding material. 115 Cc HPGe gamma detector spectrometric system is used. This shielding material is put between detector and gamma ray source. In the presence and the absence of shielding material the measurements is made. The following table is the results.

The measurement values

Energy, keV	Absence of material	Material 1	Material 2	Material 3	Material 4	Material 5	Material 2,3,4	Material 1,2,3,4,5
661,7 (cps)	40,5	33,6	17,2	14,1	17,0	29,1	0,94	0,24
1173,2 (cps)	11,7	10,0	6,7	5,5	6,4	8,9	0,64	0,19
1332,5 (cps)	10,5	9,2	6,1	5,2	6,0	8,3	0,68	0,22

* counts per second

Gamma-Ray Radiation Shielding percentage

Energy, keV	Material 1	Material 2	Material 3	Material 4	Material 5	Material 2,3,4	Material 1,2,3,4,5
661,7	17	58	65	58	28	98	99
1173,2	14	43	53	45	24	95	98
1332,5	12	42	51	43	21	94	98

NOTES:
2- As a source of radiation standart Cs-137 (661,7 keV) ve Co-60 (1173,2 keV, 1332,5 keV) radioisotopes are used.
3-In measurements, for all energy levels , error percentage is calculated as ±%1,0

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