

30 A radioactive sample is placed in a vacuum together with a Geiger Muller (GM) tube.

The GM tube is placed 10 cm from the sample and the initial count rate is 1000 s^{-1} .

Several materials are then placed between the sample and GM tube, and the results are shown below.

material	count rate / s^{-1}
0.1 mm aluminium sheet	500
7 mm aluminium sheet	500
10 cm of lead	near zero

What radiation is being emitted by the sample?

- A** alpha radiation only
- B** beta radiation only
- C** beta and gamma radiation
- D** alpha and gamma radiation

End of Paper