

39 Which statement concerning α -particles is correct?

A An α -particle has charge $+4e$.

B An α -particle is a helium atom.

C When α -particles travel through air, they cause ionisation.

D When α -particles travel through a sheet of gold foil, they make the gold radioactive.

40 A nucleus of the nuclide ^{241}Pu decays by emission of a β particle followed by the emission of an