Mark schemes

Q1.

(a) protons

this order only

1

neutrons

1

(b) the time taken for half the nuclei in a sample to decay

1

(c) carbon-18

1

(d)

1 mark for each correct line

additional line from a box on the left negates the mark for that box
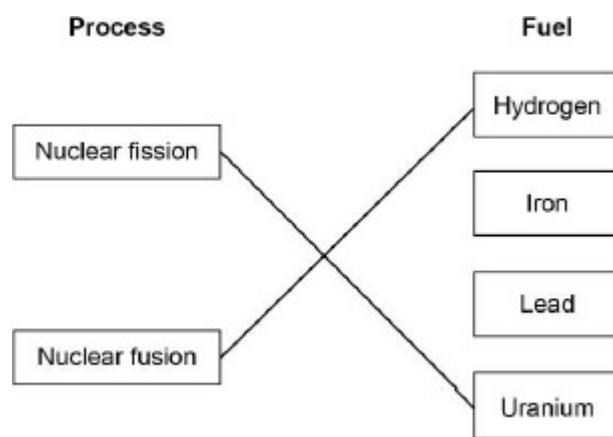
2

(e) to remove radioactive dust from their shoes

1

(f) $\text{number of days} = \dfrac{0.072}{0.00050}$

1

number of days = 144

1

(g)

Process

Fuel

Nuclear fission

Hydrogen

Iron

Lead

Nuclear fusion

Uranium

1 mark for each correct line

additional line from a box on the left negates the mark for that box

2

[11]