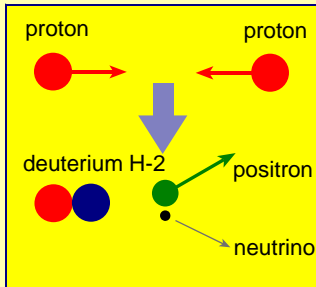


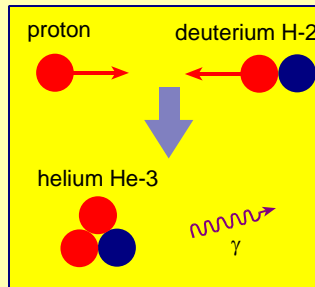
TAP 528-3: Fusion

Fusion in the Sun and on Earth

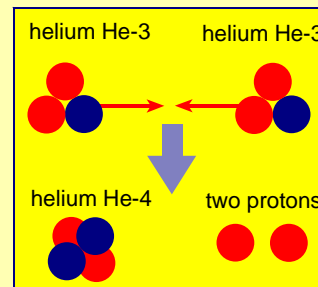
Fusion in the Sun: three-stage process



Two protons fuse, converting one to a neutron, to form deuterium H-2.

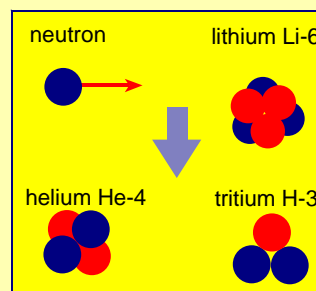
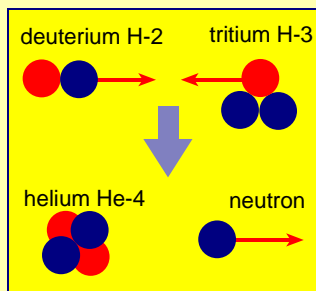


The deuterium H-2 captures another proton, to form He-3.



Two He-3 nuclei fuse, giving He-4 and freeing two protons.

Fusion on Earth: two-stage process



Deuterium and tritium are heated to very high temperature. Neutrons from their fusion then fuse with lithium in a 'blanket' around the hot gases. Tritium is renewed.

Here you can compare what happens in the Sun with reactions on Earth.

Practical advice

This diagram is reproduced here so that you can use it for discussion with your class.

External reference

This activity is taken from Advancing Physics chapter 18, 1400