## Fusion in a star

- For each step in the chain, work out the energy released
- A star may contain 10^{57} Hydrogen atoms. Work out the total amount of energy that could be released by this number.
- There are two copies of the binding energy per nucleon graph on the next page. Make sure you draw lines on the graph to show the examiner how you got your values. If the first graph becomes too crowded, use the second.
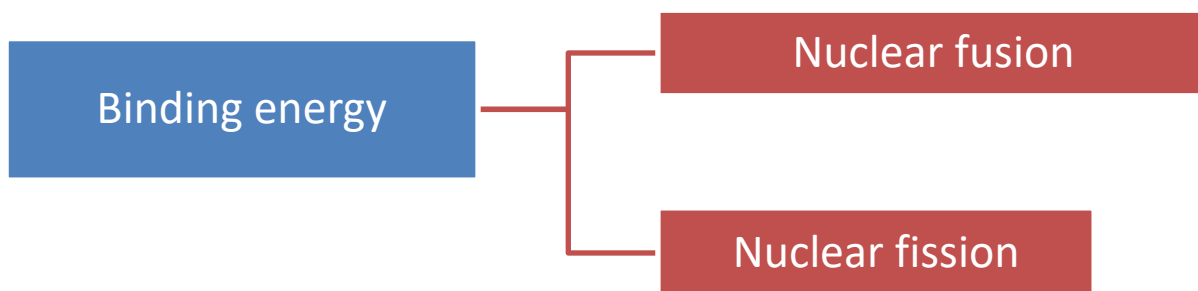

γ Gamma ray

ν Neutrino

^{4}He

Proton

Neutron

Positron

Raj Joshi

Raj Joshi
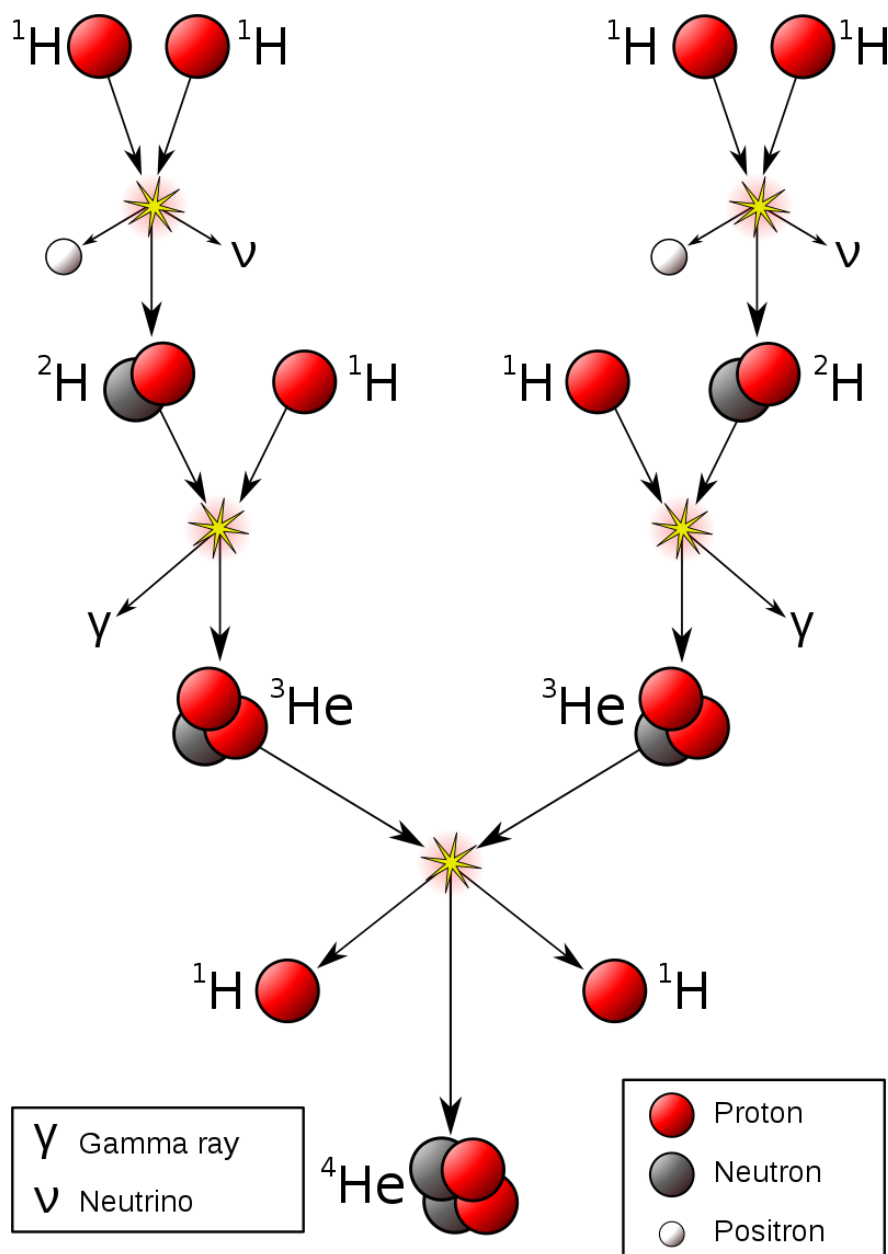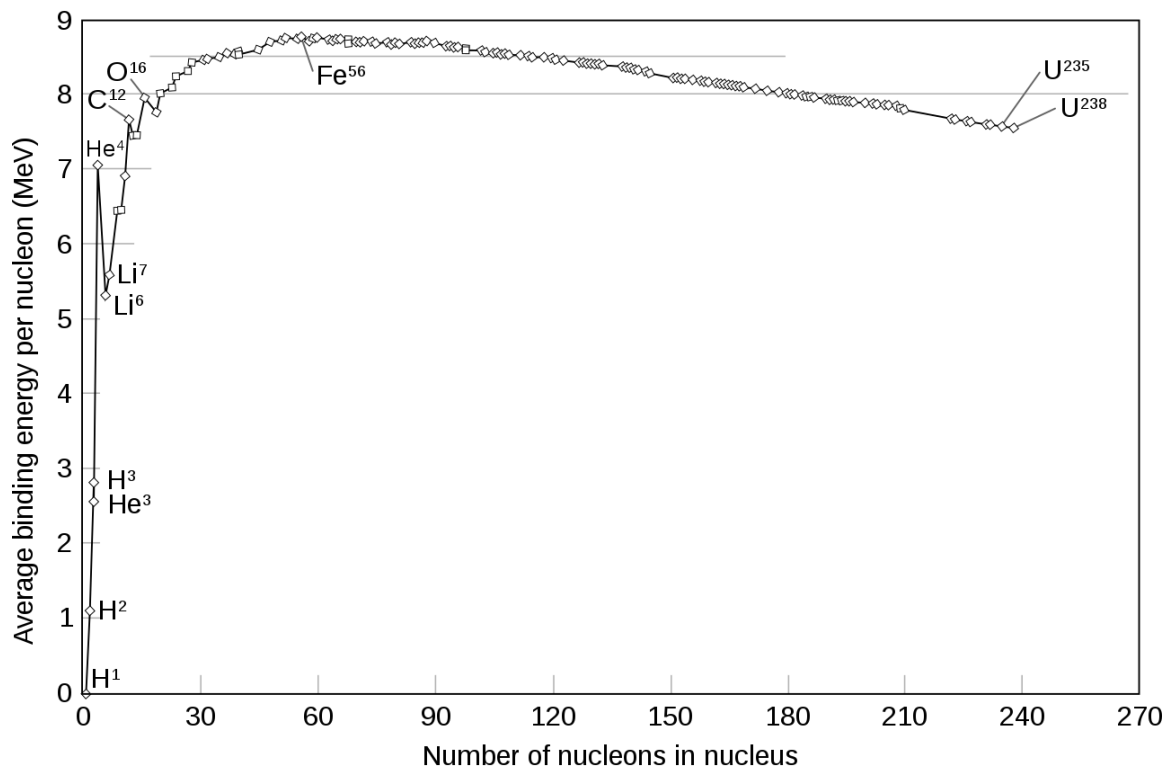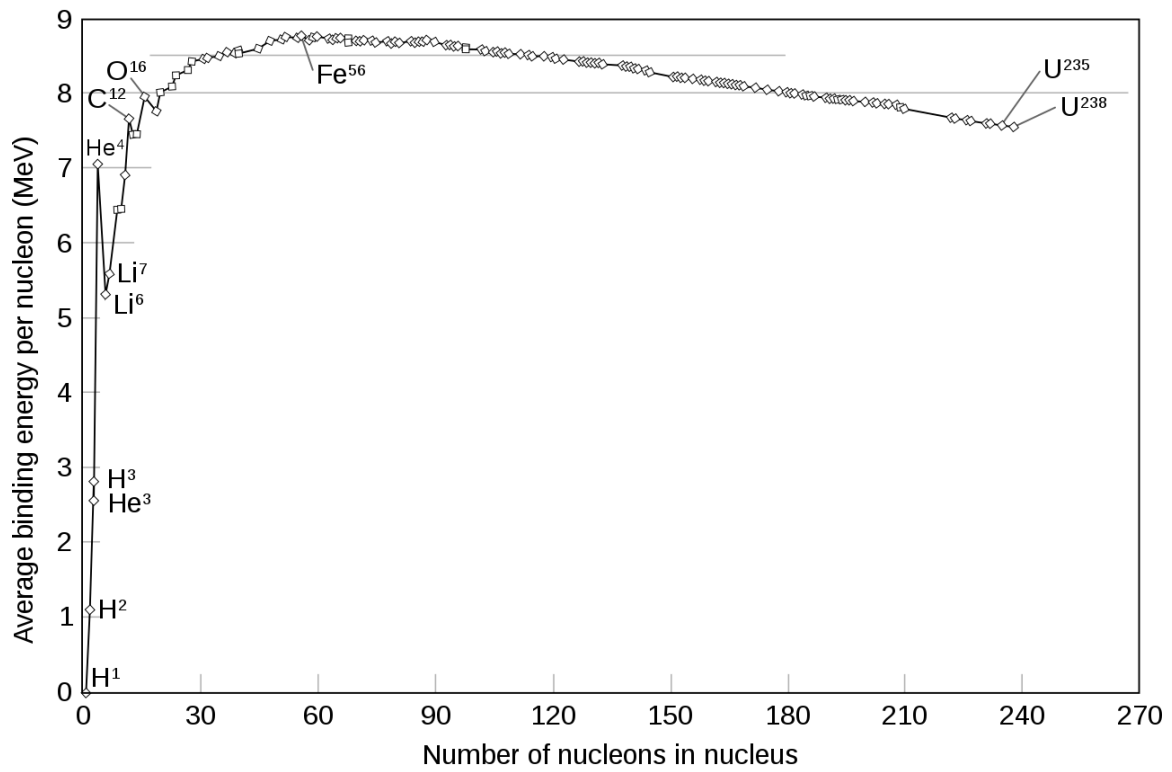
Key words

- Annotate the binding energy per nucleon graph to show which atoms release energy by fusion and which can use fission.
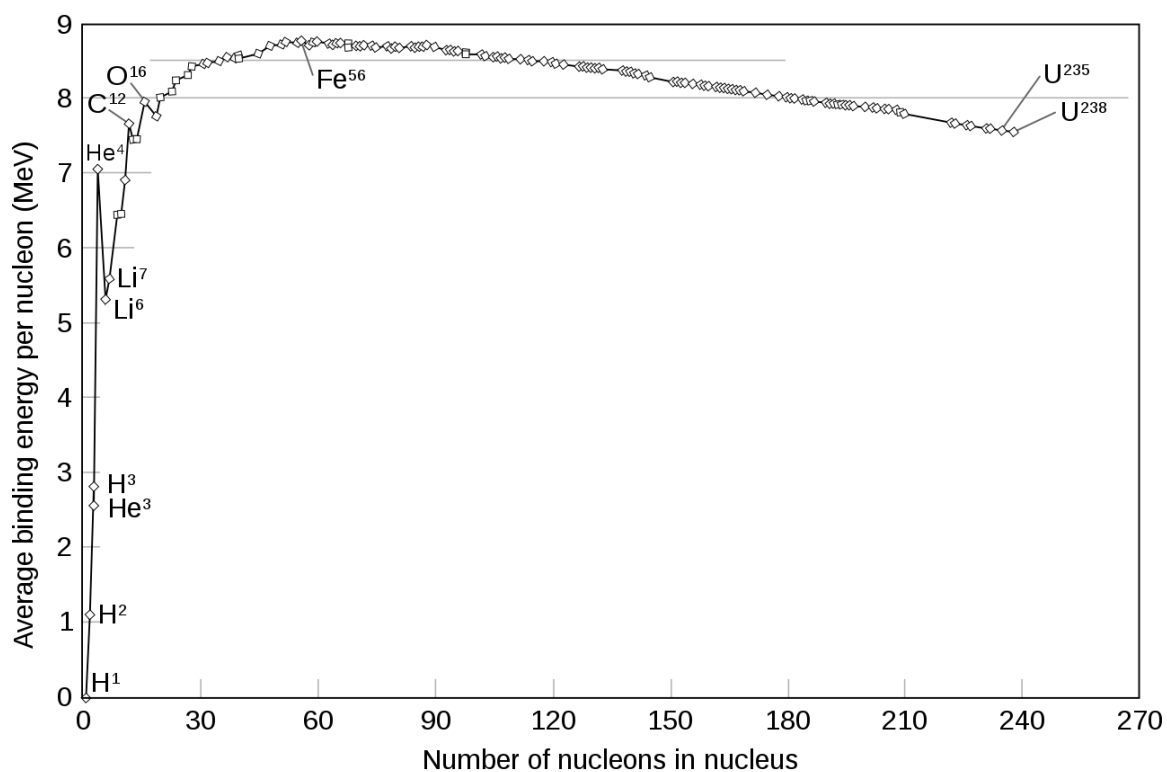
- Add annotations to the words below to show their definitions and relationships

- Should binding energy have a positive or negative value – explain the physical interpretation of your answer.

Raj Joshi