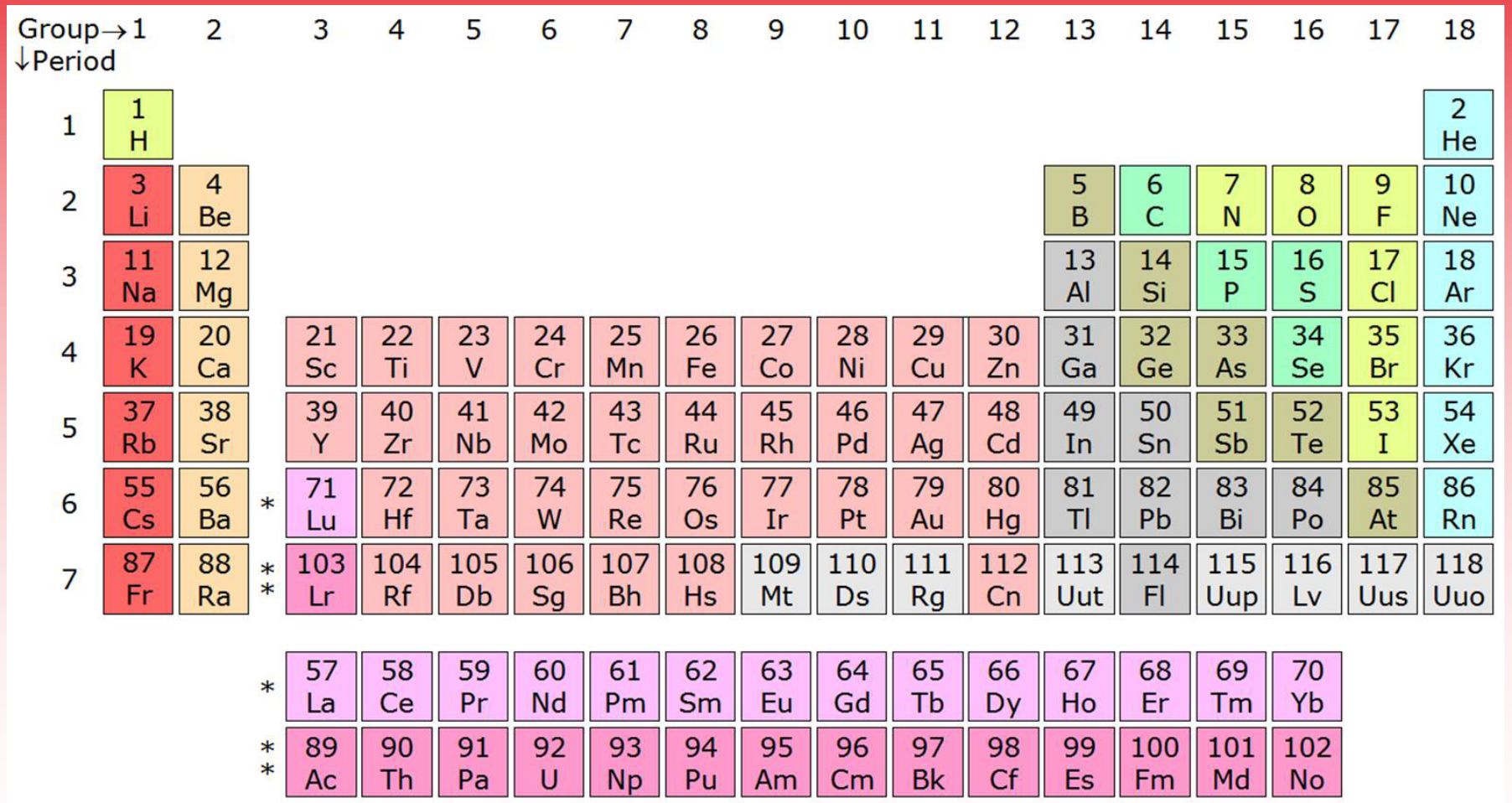
Structure of the Sun

Physics 090

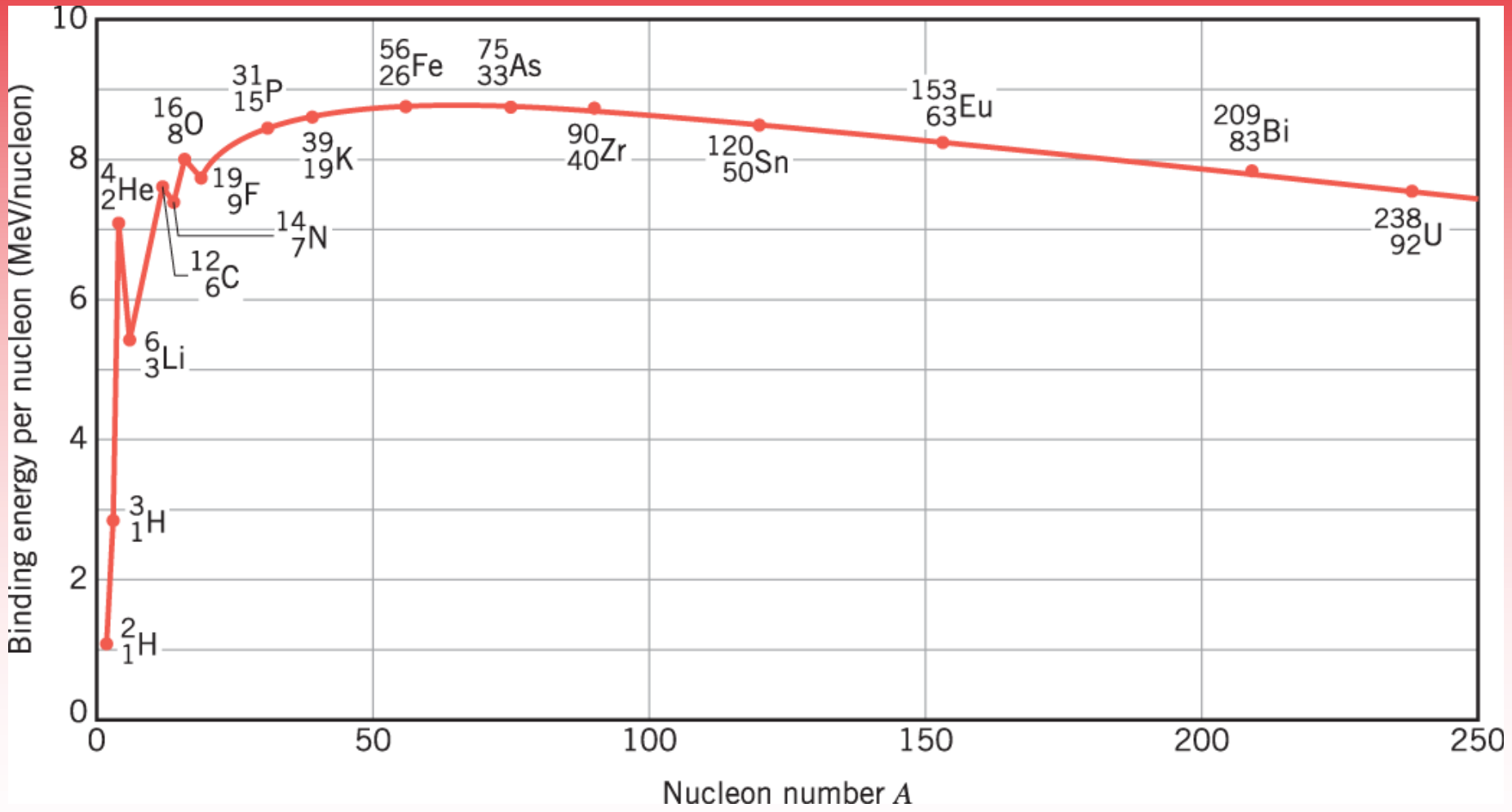
2020-03-27

SAINT MARY'S COLLEGE of CALIFORNIA



The Periodic Table

As Important for Physics as for Chemistry



Binding Energy per Nucleon

Makes Fission and Fusion are Both Understandable

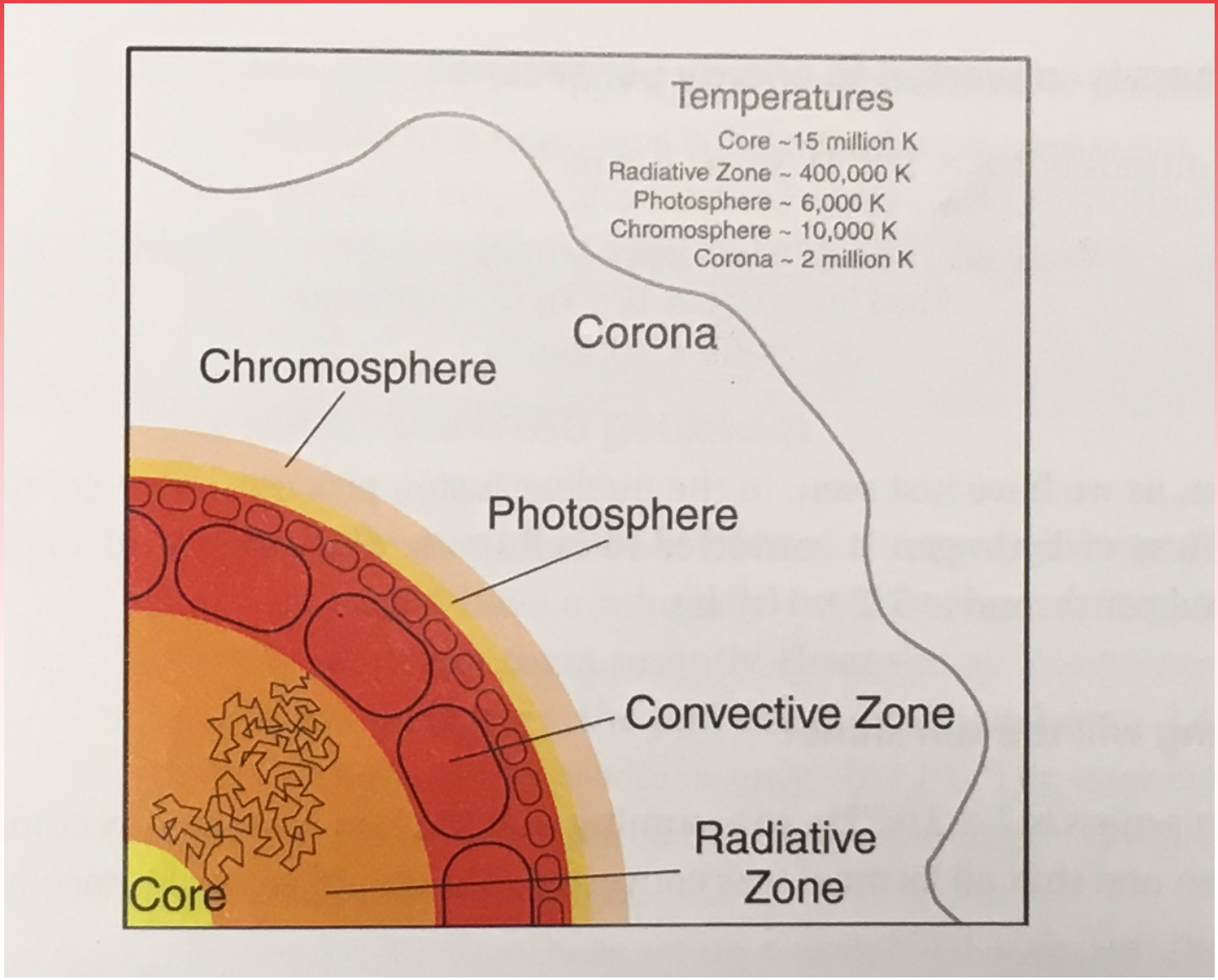
Still from B-29 Bomber Film of Mushroom Cloud over Nagasaki, August 9, 1945

Can watch film on YouTube:
https://youtu.be/cn0B5QtrOZs

Hydrogen Bomb or H-Bomb

The First Explosion using Fusion ("Ivy Mike" H-Bomb) came on November 1st, 1952, 7 years after the First Explosion Using Fission ("Trinity" A-Bomb)

Photo: https://en.wikipedia.org/wiki/Ivy_Mike



The Structure of the Sun — Nuclear Fusion only Happens in the Core, which is >10,000,000K (hot!). The Photosphere (which is the part we see) is a relatively pleasant 5,777K.

Image of the solar corona during a total solar eclipse on Monday, August 21, 2017 near Madras, Oregon.

Credit: NASA, Aubrey Gemignani