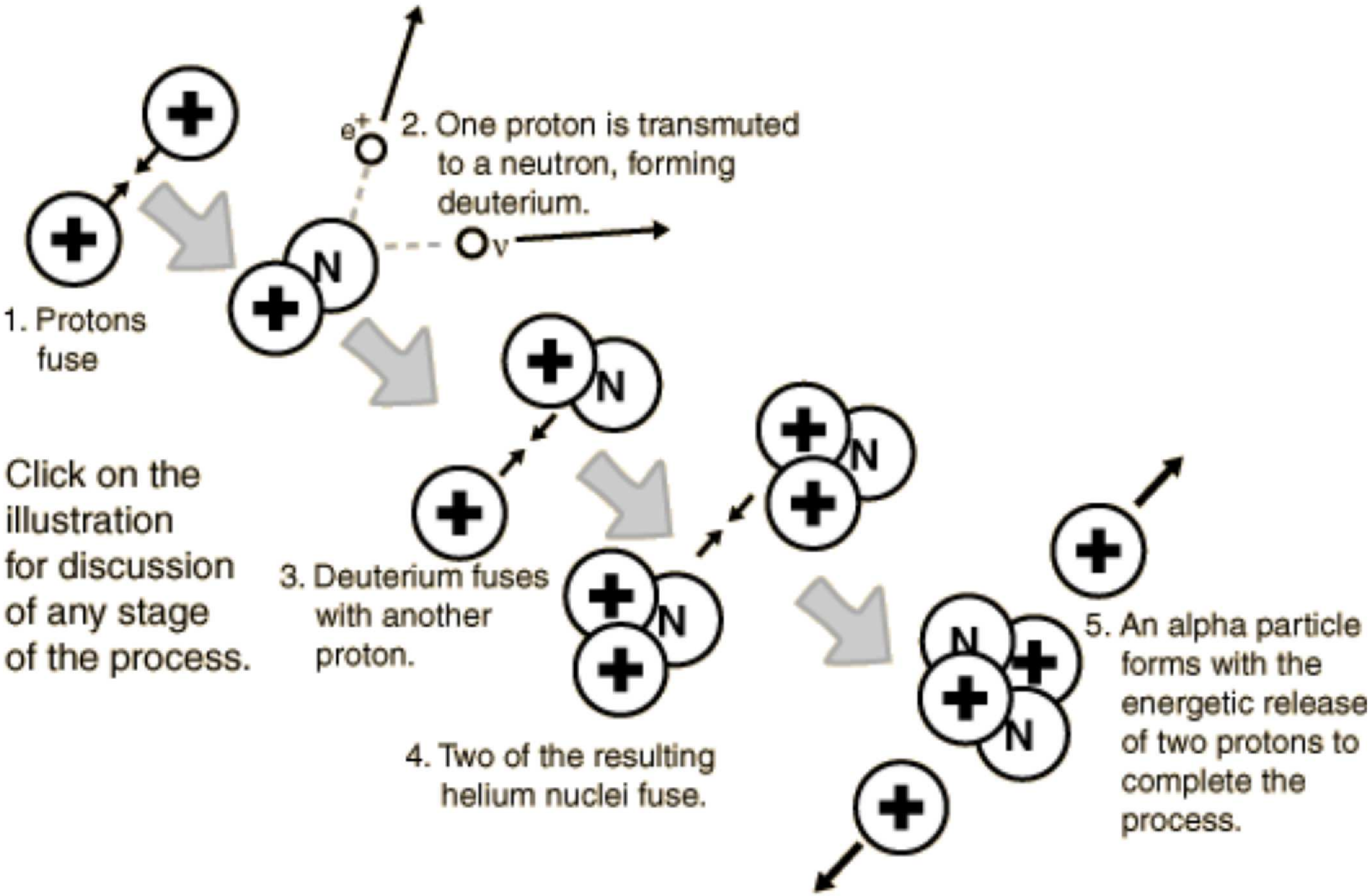
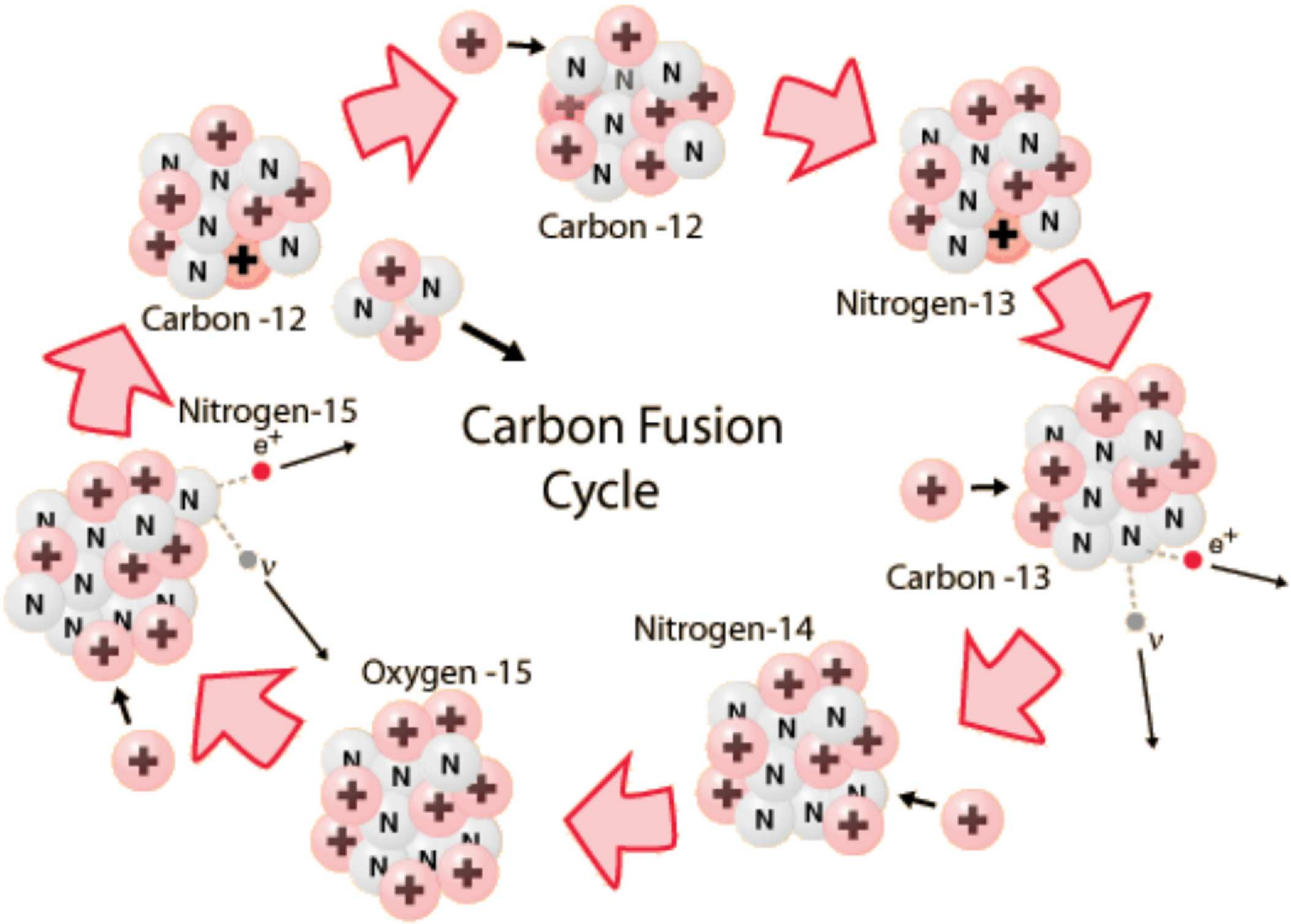
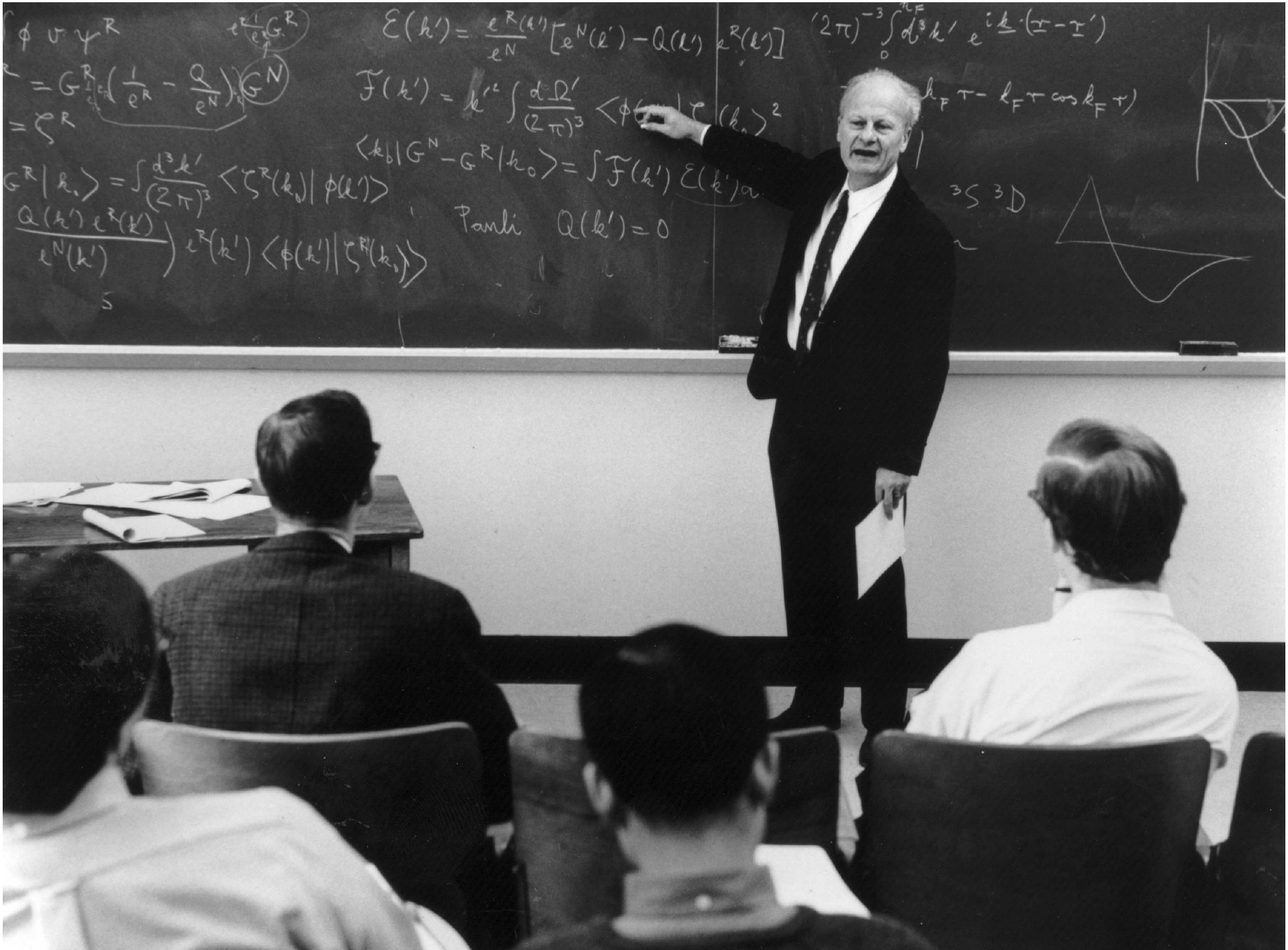


Click on the illustration for discussion of any stage of the process.


Carbon -12
Nitrogen-13
Carbon -13
e+
v
Nitrogen-14
Oxygen -15
Nitrogen-15
e+
v
Carbon -12
Carbon Fusion Cycle


Pauli Q(k') = 0
³S ³D

Hans Bethe and the Carbon Cycle

For his role in working out the energy source for stars more massive than the sun, the carbon cycle, Hans Bethe received the Nobel Prize in 1967. Bethe was one of the outstanding young scientists who fled Nazi Germany in the 1930's. One of the fascinating stories about Hans Bethe is that after submitting his article about the carbon cycle to the Physical Review, he became aware of a $500 prize for the best unpublished paper about energy production in the stars. He asked Physical Review to return his paper, proceeded to win the prize and paid a finder's fee of $50 to Robert Marshak who had told him about it. Bethe recounts "I used part of the prize to help my mother emigrate. The Nazis were quite willing to let her out, but they wanted $250, in dollars, to release her furniture. Part of the prize money went to liberate my mother's furniture."