

- 29** A positron and an electron, each of mass  $9.11 \times 10^{-31}$  kg moving with negligible kinetic energy, meet and annihilate each other, producing two gamma photons of the same frequency.

What is the energy of each of the two gamma photons produced?

- A**  $5.5 \times 10^{-22}$  J      **B**  $4.1 \times 10^{-14}$  J      **C**  $8.2 \times 10^{-14}$  J      **D**  $1.6 \times 10^{-13}$  J

- 30** During a particular fission process, a uranium-235 nucleus absorbs a slow moving neutron