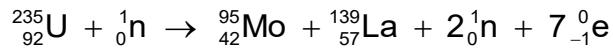


- 29** One nuclear reaction that can take place in a nuclear reactor may be represented by the equation



Data for a nucleus and some particles are given in the table.

nucleus or particle	mass / u
${}^{139}_{57}\text{La}$ nucleus	138.955
${}^1_0\text{n}$ particle	1.00863
${}^1_1\text{p}$ particle	1.00728
${}^0_{-1}\text{e}$ particle	$5.49 \times 10^{-4}$

What is the binding energy per nucleon of lanthanum-139 ( ${}^{139}_{57}\text{La}$ )?

- A** 7.84 Mev      **B** 7.87 MeV      **C** 19.13 MeV      **D** 19.19 MeV