

Learnyz Academy

Worksheet: Structure of The Atom

1. Name the scientist and his experiment which proved that the nucleus of an atom is positively charged.
2. Define the following terms: a) Atomic number b) Mass number
3. How many electrons at the maximum can be present in the first shell?
4. What are isobars?
5. Give one achievement and one limitation of J.J. Thomson's model of atom.
6. How many times is a proton heavier than an electron?
7. Which kind of elements have tendency to lose electrons? Give example.
8. Write the complete symbol for the atom with the given atomic number [Z] & mass number [A].
9. How are the isotopes of hydrogen represented?
10. Identify the isotopes out of A, B, C & D: ^{33}A , $^{\text{B}}$, ^3C , ^3D
11. State the maximum capacity of various shells to accommodate electrons.
12. Which is heavier, neutron or proton?
13. Write the charges on subatomic particles.
14. Why does Helium have zero valency?
15. What was the model of an atom proposed by Thomson?
16. From the symbol ^{32}S , state: i) Atomic number of sulphur ii) Mass number of sulphur iii) Electronic configuration of sulphur
17. What are valence electrons? Give example.
18. An atom contains 3 protons, 3 electrons and 4 neutrons. What is its atomic number, mass number & valency?
19. Give the symbol, relative charge & mass of the three subatomic particles.
20. How many electrons are present in the valence shell of nitrogen & argon?