



IDENTIFY THE PARTICLE

In each case identify the particle.

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| 1 | An atom with 6 protons and the same number of neutrons as a ^{14}N atom | ^{13}C |
| 2 | An atom with one more proton and the same number of neutrons than an atom of ^{39}K | ^{40}Ca |
| 3 | An atom with 10 protons and the same number of neutrons as an atom of ^{24}Mg | ^{22}Ne |
| 4 | An atom with one less proton and the same number of neutrons as an atom of ^{66}Zn | ^{65}Cu |
| 5 | An atom with the same number of protons and two more neutrons as an atom of ^{79}Br | ^{81}Br |
| 6 | An atom with two fewer protons and the same number of neutrons as an atom of ^{50}Cr | ^{48}Ti |
| 7 | An ion with one more proton and two more neutrons as an atom of ^{20}Ne but the same number of electrons | $^{23}\text{Na}^+$ |
| 8 | An ion with two fewer protons and two fewer neutrons as an atom of ^{40}Ar but the same number of electrons | $^{36}\text{S}^{2-}$ |
| 9 | An ion with two more protons and two more neutrons as an atom of ^{60}Ni but the same number of electrons | $^{64}\text{Zn}^{2+}$ |
| 10 | An ion with two more protons and three more neutrons as an atom of ^{20}Ne but the same number of electrons | $^{25}\text{Mg}^{2+}$ |
| 11 | An ion with one less proton, one less neutron and the same number of electrons as an atom of ^{129}Xe . | $^{127}\text{I}^-$ |
| 12 | An ion with one more proton, two more neutrons, but the same number of electrons as an ion of $^{85}\text{Rb}^+$ | $^{88}\text{Sr}^{2+}$ |
| 13 | A particle with two less protons, two less neutrons and the same number of electrons as an atom of ^{20}Ne | $^{16}\text{O}^{2-}$ |
| 14 | A particle with one less proton, two less neutrons and one more electron as a $^{48}\text{Ti}^{2+}$ ion | ^{45}Sc |
| 15 | A particle with one less proton, two more neutrons and the same number of electrons as a $^{127}\text{I}^-$ ion | $^{128}\text{Te}^{2-}$ |