

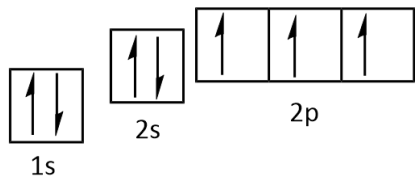


Determine nitrogen ion charge.

The nitrogen ion charge is 3-.

Nitrogen is a chemical element with an atomic number of 7, which means that it has 7 protons in its nucleus. The charge of a nitrogen ion is determined by the number of protons in its nucleus and the number of electrons that it has.

The electronic configuration for a neutral nitrogen atom is $1s^2 2s^2 2p^3$, whereas the orbital diagram for the valence shell is:



Nitrogen needs to gain 3 electrons in order to form a stable ion where the valence shell has full octet. For this reason the charge of nitrogen ions is 3- and the symbol is:

