A ground-state atom is an atom in which the total energy of the electrons can not be lowered by transferring one or more electrons to different orbitals. That is, in a ground-state atom, all electrons are in the lowest possible energy levels.

eg: Consider a carbon atom whose electron configuration is the following.

```
1s  2s  2p
  ↑  ↑  ↑  ↑
```

The total energy of the electrons in this carbon atom can not be lowered by transferring one or more electrons to different orbitals. Therefore, this carbon atom is a ground-state atom.

see also excited-state atom

Contributors

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