Chem 14A Su2021 Week 2 Quiz

How many of arsenic's electrons (in its ground state configuration) have $m_l = +1$? Enter only a number for your answer.

2 electrons per orbital max.

 $m_l = +1$ refers to only one p and d orbital per energy level (shell) in arsenic

arsenic = $1s^22s^22p^63s^23p^64s^23d^{10}4p^3$ 2 2 2 1 = 7

How many of argon's electrons (in its ground state configuration) have $m_s = +1/2$?

Exactly half. = 9

How many of copper's electrons (in its ground state configuration) are unpaired? $[Ar]4s^{1}3d^{10}$

So only 1 electron is unpaired

How many different values of the quantum number l are possible when n = 4? 4s l = 04p l = 14d l = 24f l = 3

Total of 4 different *l* values.

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