SOL Review

Atomic Structure

	mass	charge	How to find the #
Protons	1 amu	1+	Same as the atomic #
Neutrons	1 amu	neutral	mass # - protons
Electrons	∅ amu	1−	① If no charge same as atomic # ② If charged protons - charge = electrons

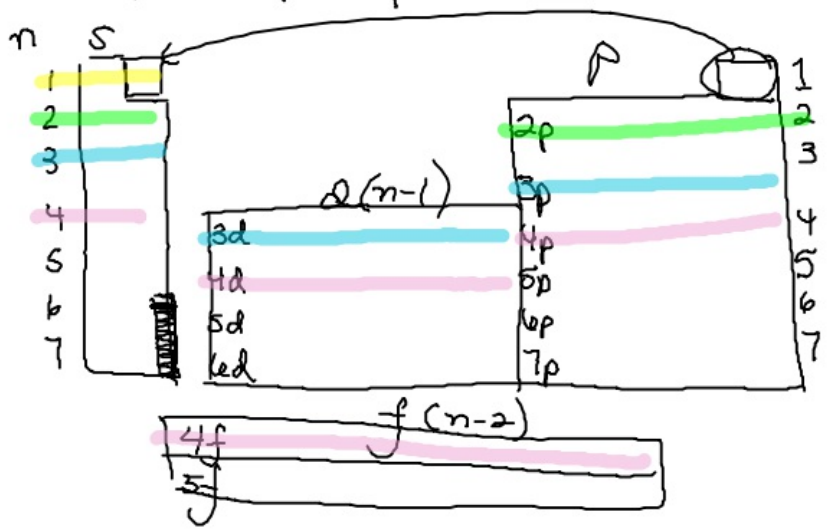
* the mass of 1 proton ≈ 2000 (1800) electrons

P^{3-} $15p - -3 = 18$

mass # → 13 C ← atomic # (6)

charge

	Atomic #	Mass #	Protons	Electrons	neutrons
20. $^{13}_{6}C$	6	13	6	6	7
21. $^{21}_{9}F$	9	21	9	9	12
22. P^{3-}	15	31	15	18	16
23. Mg^{2+}	12	24	12	10	12



SOL Review

Atomic Structure

	Mass	charge	How to determine quantity
Protons	1 amu	1+	atomic #
Neutrons	1 amu	neutral	mass # - atomic #
Electrons	0 amu	1-	① No charge p = e ② charged protons - charge = electrons

* 1 proton = mass of ~2000 electrons (1860)
Milikan

isotopes = different # of neutrons (diff mass) same protons

mass # ⟶ 42
atomic # ⟶ 20 $^{42}_{20}Ca$ calcium-42

ion = an atom that has lost or gained e^- and now has a charge

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