

MORE ATOMS

Objectives:

Sub atomic structure (topic)

a. Describe the properties of all subatomic particles.

II. How does an atom acquires mass.

a. Understand why atoms of the same element have different masses.

III. How does an atom acquires a charge.

a. Understand how an atom acquires a charge.

b. Understand why an atom acquires a charge.

c. Be able to determine an atom's most common charge and why. (octet rule)

Sy	p ⁺	n	e ⁻	charge	mass #	Atomic #	Ave. Atomic
Fe	26	32	26	none	58	26	55.8
Hg	80	120	78	2+	200	80	200.6
Ti	22	182	22	none	204	22	47.9
O	8	8	8	none	16	8	16.0
O	8	4	8	none	12	8	16.0
U	92	93	97	-5	185	92	238.0
Pb	82	122	82	none	204	82	207.2
O	8	16	8	none	24	8	16.0
Ti	22	22	22	0	44	22	47.9
Po	84	125	82	+2	209	84	(210)

II. How does an atom acquires mass.

a. Understand why atoms of the same element have different masses.

III. How does an atom acquires a charge.

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SYMBOL	ATOMIC NUMBER	MASS NUMBER	$^0_{11}$	e^-	Charge	P^+
O	8	16	8	8	0	8
F	9	18	9	9	0	9
S	16	24	8	17	-1	16
U	92	172	80	91	+1	92
Am	95	209	114	95	0	95
o	8	16	8	9	-1	8
O	8	18	10	8	0	8
O	8	12	4	7	+1	8
Al	13	25	12	13	0	13