

Atomic Structure Practice

The following table contains information about several elements and their different forms called isotopes. Use this table to review the concepts of atomic number, mass number, protons, neutrons and electrons and fill in the blank boxes with the correct information.

Element	Symbol	Atomic Number	Mass Number	# Protons	# Neutrons	# Electrons	Charge
Hydrogen	${}^1_1\text{H}$	1	1	1	0	1	0
Nitrogen - 15	${}^{15}_7\text{N}$	7	15	7	8	7	0
Aluminum	${}^{27}_{13}\text{Al}$	13	27	13	14	13	0
Krypton	${}^{81}_{36}\text{Kr}$	36	81	36	45	36	0
Uranium	${}^{238}_{92}\text{U}$	92	238	92	146	92	0
Helium	${}^4_2\text{He}$	2	4	2	2	2	0
Helium	${}^5_2\text{He}$	2	5	2	3	2	0
Lithium ion (Li^{+1})	${}^7_3\text{Li}^{+1}$	3	7	3	4	2	+1
Xenon	${}^{133}_{54}\text{Xe}$	54	133	54	79	54	0
Magnesium	${}^{24}_{12}\text{Mg}$	12	24	12	12	12	0
Carbon	${}^{12}_6\text{C}$	6	12	6	6	6	0
Calcium ion	${}^{40}_{20}\text{Ca}$	20	40	20	20	18	+2
Manganese	${}^{55}_{25}\text{Mn}$	25	55	25	30	25	0
Mercury	${}^{201}_{80}\text{Hg}$	80	201	80	121	80	0
Gold	${}^{197}_{79}\text{Au}$	79	197	79	118	79	0
Sulfide ion (S^{2-})	${}^{32}_{16}\text{S}^{2-}$	16	32	16	16	18	2-