


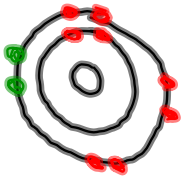
Warm-Up Question

What are the Names the following ions:

1. Br^- Bromide ion nonmetal
2. Ca^{2+} Calcium ion -ide
3. P^{3-} Phosphide ion

Homework Questions

*metals → lose
nonmetals → gain*

Name	Symbol (atom)	Bohr Diagram	#VE	Gain/Lose	Symbol (ion)
Lithium	Li		1	lose	Li ⁺
Oxygen	O		6	gain	O ²⁻

two or more
elements

Compounds

Compounds are made by elements transferring or sharing electrons.

- the further an e- is away from the nucleus, the greater the possibility of it making a compound with another element
- the **outermost electrons** are involved in making compounds

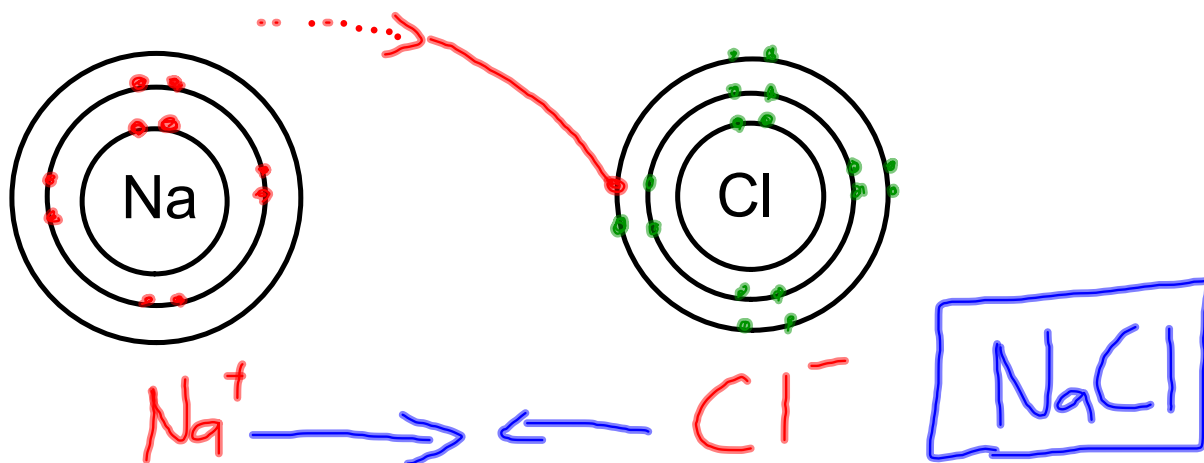
Valence electrons

Ionic Compounds

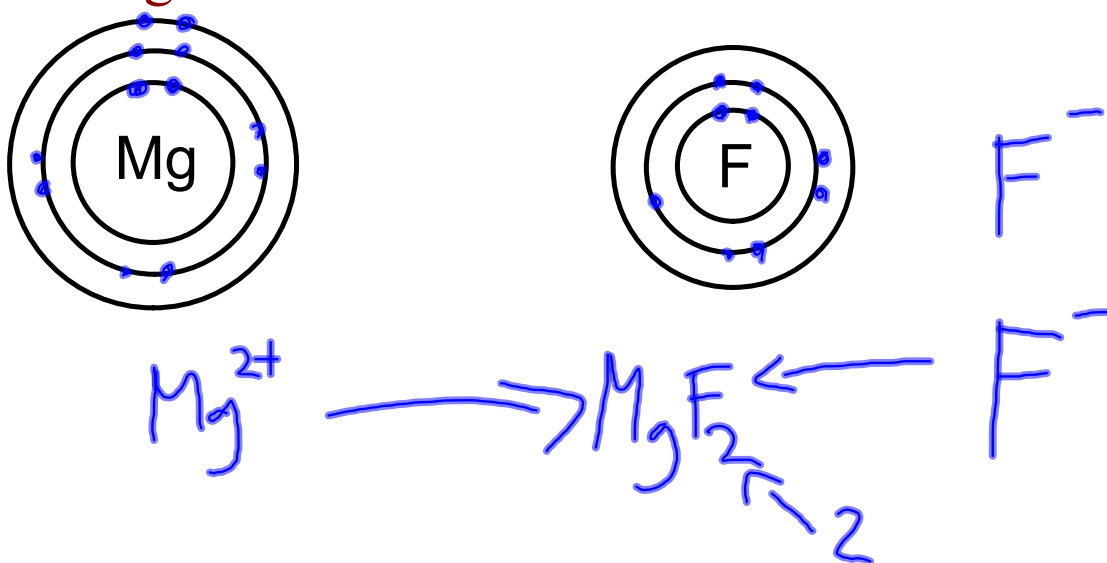
Ionic compounds are made by elements transferring electrons.

- the further an e^- is away from the nucleus, the greater the possibility of it making a compound with another element
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Ex. Sodium and Chlorine



Ex: Magnesium and Fluorine



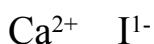
Ionic Compounds

How to Write an Ionic Compound

1. Write the symbols, with the metal always being written first.



2. Write the ionic charge above the symbol to indicate the stable ion that each element forms



3. Determine how many ions of each type you need so that the total ionic charge is zero.

One Ca²⁺ will balance two I⁻

4. Write the formula using subscripts to indicate the number of ions of each type.



- when naming ionic compounds, the name of the metal remains the same but the name of the nonmetal changes to an -ide ending

ex: Beryllium and Nitrogen

(Crisscross)

NOTE: If there is a common factor between the two charges, reduce!

Ex. Al³⁺ N³⁻

Periodic Table

Periodic Table of the Elements

1	1	2											3	4	5	6	7	8	9	10	
	IA		IIA											IIIA	IVA	VA	VIA	VIIA	0		
1	H																				He
2	3	4											5	6	7	8	9	10			
	Li	Be											B	C	N	O	F	Ne			
3	11	12	IIIB	IVB	VB	VIB	VII B	VII	IB	IIB	13	14	15	16	17	18					
	Na	Mg									Al	Si	P	S	Cl	Ar					
4	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36			
	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr			
5	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54			
	Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe			
6	55	56	57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86			
	Cs	Ba	*La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn			
7	87	88	89	104	105	106	107	108	109	110	111	112	113								
	Fr	Ra	+Ac	Rf	Ha	Sg	Ns	Hs	Mt	110	111	112	113								

* Lanthanide Series

58	59	60	61	62	63	64	65	66	67	68	69	70	71
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu

+ Actinide Series

90	91	92	93	94	95	96	97	98	99	100	101	102	103
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr