

Ch 9

HW: St Guide Wks Sec 9.1

Sec 9.1A

obj: Write names and symbols for both polyatomic & monatomic ions.

Monatomic Ions

- Single atom Ions
- Elements form monatomic ions.

Representative Elements

Groups	1	2	13	14	15	16	17
	IA	IIA	IIIA	IVA	VA	VIA	VIIA
	$1e^-$	$2e^-$	$3e^-$		$3e^-$	$2e^-$	$1e^-$
	Lost				gained		
	1^+	2^+	3^+		3^-	2^-	1^-

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- Transition elements (3-12) (Group B)

- Most have more than 1 ionic charge. * All cations

Fe^{2+}	Fe^{3+}	Cu^{1+}	Cu^{2+}
Iron II	Iron III	Copper I	Copper II
Ferrous	Ferric	Cuprous	Cupric

* Tin & Lead are not transition elements, but have more than 1 ionic charge.

Sn^{2+}	Sn^{4+}	Pb^{2+}	Pb^{4+}
Tin II	Tin IV	Lead II	Lead IV

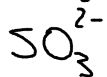
Transition Metals w/ 1 ionic charge.

Ag^{1+}	Silver Ion	Cd^{2+}	Cadmium Ion
Zn^{2+}	Zinc Ion		

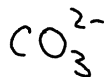
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Polyatomic Ions

- Group of atoms that are covalently bonded + also have a charge.
- The symbols look like Molecular Compounds



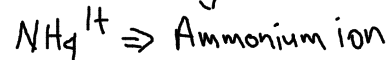
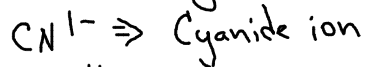
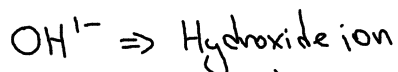
Sulfite ion



Carbonate Ion

- Most polyatomic Ions are Anions
- Names of the ion have suffixes of ate or ite

* Three Polyatomic ions w/ suffixes other ate or ite



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