SCH 3U

# MULTIVALENT METALS NAMED BY ALCHEMIST METHOD

* No longer considered correct IUPAC method of naming, but still seen
* Only used if the metal has only two possible valences
* Usually incorporates the latin name of the metal
* The “-ous” ending indicates the lower value of the two valences
* The “-ic” ending indicates the higher value of the two valences

|  |  |  |  |
| --- | --- | --- | --- |
| Metal Name | Symbol | Ion Charge | Alchemist Name |
| tin | Sn | 2+  4+ | stannous  stannic |
| lead | Pb | 2+  4+ | plumbous  plumbic |
| platinum | Pt | 2+  4+ | platinous  platinic |
| iron | Fe | 2+  3+ | ferrous  ferric |
| cobalt | Co | 2+  3+ | cobaltous  cobaltic |
| nickel | Ni | 2+  3+ | nickelous  nickelic |
| mercury | Hg | 1+  2+ | mercurous  mercuric |
| copper | Cu | 1+  2+ | cuprous  cupric |
| gold | Au | 1+  2+ | aurous  auric |

Write formulas for the following compounds named by an outdated method.

a) cuprous hydride b) plumbous sulfide

c) cobaltic chlorate d) mercuric sulfate

e) aurous oxide f) ferrous fluoride

g) plumbic nitrate h) stannous acetate

i) cupric iodide j) ferric phosphite

k) mercurous nitride l) auric bromide

Reminder: You never use this method to name compounds.