

Polyatomic Ions

Directions: Study and memorize the numbered only polyatomic ions. Pay careful attention to the subscripts and charges! Spelling Counts! You must memorize these ions, and they will be used all year!

POSITIVE IONS

- ① NH_4^+ ammonium ion*
- ② H_3O^+ hydronium ion

NEGATIVE IONS

- ③ CH_3COO^- acetate ion*
or $\text{C}_2\text{H}_3\text{O}_2^-$
- AsO_4^{3-} arsenate ion
- BO_3^{3-} borate ion
- $\text{B}_4\text{O}_7^{2-}$ tetraborate ion
- ④ BrO_3^- bromate ion
- ⑤ CO_3^{2-} carbonate ion*
- ⑥ HCO_3^- hydrogen carbonate ion*
(bicarbonate ion)

- ⑦ ClO_4^- perchlorate ion*
- ⑧ ClO_3^- chlorate ion*
- ⑨ ClO_2^- chlorite ion*
- ⑩ ClO^- hypochlorite ion*
- ⑪ CrO_4^{2-} chromate ion*
- ⑫ $\text{Cr}_2\text{O}_7^{2-}$ dichromate ion*
- ⑬ CN^- cyanide ion*
- OCN^- cyanate ion
- ⑭ SCN^- thiocyanate ion
- ⑮ OH^- hydroxide ion*
- ⑯ NO_3^- nitrate ion*
- ⑰ NO_2^- nitrite ion*
- ⑱ $\text{C}_2\text{O}_4^{2-}$ oxalate ion

- ⑲ MnO_4^- permanganate ion*
- ⑳ O_2^{2-} peroxide ion
- ㉑ PO_4^{3-} phosphate ion*
- ㉒ PO_3^{3-} phosphite ion*
- ㉓ HPO_4^{2-} hydrogen phosphate ion*
(biphosphate ion)
- ㉔ H_2PO_4^- dihydrogen phosphate ion*
- SiO_3^{2-} silicate ion
- ㉕ SO_4^{2-} sulfate ion*
- ㉖ SO_3^{2-} sulfite ion*
- ㉗ HSO_4^- hydrogen sulfate ion*
(bisulfate ion)
- ㉘ HSO_3^- hydrogen sulfite ion*
(bisulfite ion)
- $\text{S}_2\text{O}_3^{2-}$ thiosulfate ion