

Exercises of Nomenclature of inorganic compounds

1) Give the formula for each of the following:

- a) beryllium monoxide, beryllium oxide
- b) water
- c) dialuminium trioxide, aluminium oxide
- d) manganese monoxide, manganese(II) oxide
- e) disodium dioxide, sodium peroxide
- f) carbon monoxide, carbon(II) oxide

2) Name each of the following compounds:

- a) Ag_2O_2
- b) CoO
- c) CdO
- d) BaO_2
- e) H_2O
- f) CaO

3) Give the formula for each of the following:

- a) calcium hydride
- b) zinc hydride
- c) aluminium hydride
- d) phosphine
- e) francium hydride
- f) sodium hydride

4) Name each of the following compounds:

- a) AgH
- b) CsH
- c) AsH_3
- d) BaH_2
- e) RbH
- f) KH

5) Give the formula for each of the following:

- a) nickel(II) hydroxide
- b) magnesium hydroxide
- c) copper(I) hydroxide
- d) caesium hydroxide
- e) rubidium hydroxide
- f) calcium hydroxide

6) Name each of the following compounds:

- a) NaOH
- b) NH_4OH
- c) $\text{Cr}(\text{OH})_3$
- d) $\text{Fe}(\text{OH})_2$
- e) $\text{Cr}(\text{OH})_2$
- f) $\text{Cu}(\text{OH})_2$

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7) Give the formula for each of the following:

- a) rubidium bromide
- b) copper(I) chloride
- c) hydrogen iodide
- d) beryllium bromide
- e) dinitrogen triselenide, nitrogen(III) selenide, nitrous selenide
- f) hydrogen chloride, hydrochloric acid

8) Name each of the following compounds:

- | | | | |
|----------------------------|--|---------------------------|---------|
| a) HF | b) $\text{H}_2\text{Se}_{(\text{ac})}$ | c) NH_4Cl | d) LiCl |
| e) As_2S_3 | f) $\text{HI}_{(\text{ac})}$ | | |

9) Give the formula for each of the following:

- a) hydrogen chromate, chromic acid
- b) hydrogen orthophosphate, orthophosphoric acid
- c) hydrogen seleniate, selenic acid
- d) hydrogen diantimonite, diantimonious acid
- e) hydrogen iodate, iodic acid
- f) hydrogen orthophosphite, orthophosphorous acid

10) Name each of the following compounds:

- | | | | |
|-----------------------------|----------------------------|-----------------------------|--------------------|
| a) H_3SbO_4 | b) H_2SO_4 | c) H_2SeO_4 | d) HClO_2 |
| e) HNO_2 | f) H_2SO_3 | | |

11) Give the formula for each of the following:

- a) lead(IV) metaphosphate
- b) platinum(IV) hypoiodite
- c) cobalt(III) metaarsenate
- d) lithium nitrate
- e) tin(II) nitrite
- f) manganese(II) diantimonite

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12) Name each of the following compounds:

- a) NaSbO_3 b) $\text{K}_2\text{B}_4\text{O}_7$ c) $\text{Au}_4\text{Sb}_2\text{O}_7$ d) $\text{Cd}(\text{BO}_2)_2$
 e) $\text{Fe}(\text{PO}_2)_3$ f) FeN_2O_2

13) Give the formula for each of the following:

- a) sodium hydrogen chromate
 b) potassium hydrogen phosphite
 c) chromium(III) hydrogen pyrophosphite
 d) caesium dihydrogen pyrophosphite
 e) tin(II) dihydrogen phosphate
 f) copper(II) hydrogen chromate

14) Name each of the following compounds:

- a) $\text{Be}(\text{HCrO}_4)_2$ b) AuHCO_3 c) $\text{Cu}(\text{H}_3\text{P}_2\text{O}_7)_2$ d) $\text{Zn}(\text{HTeO}_3)_2$
 e) $\text{Hg}(\text{HCr}_2\text{O}_7)_2$ f) NaHMnO_4

15) Give the formula for each of the following:

- a) piroantimoniate ion
 b) diantimonite ion
 c) hydrogen telluride ion
 d) permanganate ion
 e) hydrogen orthoarsenite ion
 f) seleniate ion

16) Name each of the following compounds:

- a) HS^- b) ClO_4^- c) HAsO_4^{2-} d) ClO_2^-
 e) HTe^- f) OH^-

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Answers:

- 1) a) BeO b) H₂O c) Al₂O₃ d) MnO
 e) Na₂O₂ f) CO
- 2) a) disilver dioxide, silver peroxide
 b) cobalt monoxide, cobalt(II) oxide
 c) cadmium monoxide, cadmium oxide
 d) barium dioxide, barium peroxide
 e) water
 f) calcium monoxide, calcium oxide
- 3) a) CaH₂ b) ZnH₂ c) AlH₃ d) PH₃
 e) FrH f) NaH
- 4) a) silver hydride
 b) caesium hydride
 c) arsine
 d) barium hydride
 e) rubidium hydride
 f) potassium hydride
- 5) a) Ni(OH)₂ b) Mg(OH)₂ c) CuOH d) CsOH
 e) RbOH f) Ca(OH)₂
- 6) a) sodium hydroxide
 b) ammonium hydroxide
 c) chromium(III) hydroxide
 d) iron(II) hydroxide
 e) chromium(II) hydroxide
 f) copper(II) hydroxide
- 7) a) RbBr b) CuCl c) HI d) BeBr₂
 e) N₂Se₃ f) HCl_(ac)
- 8) a) hydrogen fluoride
 b) hydrogen selenide, hydroselenic acid
 c) ammonium chloride
 d) lithium chloride
 e) diarsenic trisulfide, arsenic(III) sulfide, arsenious sulfide
 f) hydrogen iodide, hydroiodic acid
- 9) a) H₂CrO₄ b) H₃PO₄ c) H₂SeO₄ d) H₄Sb₂O₅
 e) HIO₃ f) H₃PO₃
- 10) a) hydrogen orthoantimonate, orthoantimonic acid
 b) hydrogen sulfate, sulfuric acid
 c) hydrogen selenate, selenic acid
 d) hydrogen chlorite, chlorous acid

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- 11) a) $\text{Pb}(\text{PO}_3)_4$ b) $\text{Pt}(\text{IO})_4$ c) $\text{Co}(\text{AsO}_3)_3$ d) LiNO_3
 e) $\text{Sn}(\text{NO}_2)_2$ f) $\text{Mn}_2\text{Sb}_2\text{O}_5$
- 12) a) sodium metaantimoniate
 b) potassium tetraborate
 c) gold(I) diantimoniate
 d) cadmium metaborate
 e) iron(III) metaphosphite
 f) iron(II) hyponitrite
- 13) a) NaHCrO_4 b) K_2HPO_3 c) CrHP_2O_5 d) $\text{Cs}_2\text{H}_2\text{P}_2\text{O}_5$
 e) $\text{Sn}(\text{H}_2\text{PO}_4)_2$ f) $\text{Cu}(\text{HCrO}_4)_2$
- 14) a) beryllium hydrogen chromate
 b) gold(I) hydrogen carbonate, gold(I) bicarbonate
 c) copper(II) trihydrogen pyrophosphate
 d) zinc hydrogen tellurite
 e) mercury(II) hydrogen dichromate
 f) sodium hydrogen manganate
- 15) a) $\text{Sb}_2\text{O}_7^{4-}$ b) $\text{Sb}_2\text{O}_5^{4-}$ c) HTe^- d) MnO_4^-
 e) HAsO_3^{2-} f) SeO_4^{2-}
- 16) a) hydrogen sulfide ion
 b) perchlorate ion
 c) hydrogen orthoarsenate ion
 d) chlorite ion
 e) hydrogen telluride ion
 f) hydroxide ion