

Polyatomic Ions Quiz PDF

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Compare and contrast the sulfate (SO_4^{2-}) and sulfite (SO_3^{2-}) ions in terms of structure and usage.

Describe the role of phosphate ions in biological systems.

Which of the following is a polyatomic ion?

- Na^+
- Cl^-
- NH_4^+
- Mg^{2+}

Which suffix is commonly used for polyatomic ions with more oxygen atoms?

- ite
- ate
- ide

-ous

What is the formula for the nitrate ion?

- NO_2^-
 NO_3^-
 NO_4^-
 NO^+

Which of the following ions are polyatomic ions? (Select all that apply)

- Cl^-
 CO_3^{2-}
 SO_4^{2-}
 Na^+

What is the charge on the phosphate ion (PO_4)?

- 1
 -2
 -3
 +1

Which of the following polyatomic ions are commonly found in biological systems? (Select all that apply)

- Phosphate (PO_4^{3-})
 Ammonium (NH_4^+)
 Nitrate (NO_3^-)
 Hydroxide (OH^-)

Which polyatomic ions contain oxygen? (Select all that apply)

- Ammonium (NH_4^+)
 Hydroxide (OH^-)
 Nitrate (NO_3^-)
 Sulfite (SO_3^{2-})

Which of the following ions have a -2 charge? (Select all that apply)

- Sulfate (SO_4^{2-})

- Carbonate (CO_3^{2-})
- Phosphate (PO_4^{3-})
- Nitrate (NO_3^-)

Which of the following ions end with the suffix '-ite'? (Select all that apply)

- Nitrite (NO_2^-)
- Sulfite (SO_3^{2-})
- Phosphate (PO_4^{3-})
- Chlorite (ClO_2^-)

What is the charge of the sulfate ion (SO_4)?

- 1
- 2
- +1
- +2

Which of the following are correct formulas for polyatomic ions? (Select all that apply)

- PO_4^{3-}
- NH_3^+
- SO_3^{2-}
- ClO_4^-

Discuss the environmental significance of nitrate ions.

Which of the following is the ammonium ion?

- NH_3
- NH_4^+
- NH_2^-

NH_4^-

What is the correct formula for the hydroxide ion?

HO^-

OH^-

O_2H^-

H_2O^-

Which of the following polyatomic ions contains sulfur?

Carbonate

Phosphate

Sulfate

Nitrate

What challenges might a student face when learning the names and formulas of polyatomic ions, and how can they overcome them?

Explain why polyatomic ions are important in chemical reactions.

How do the prefixes 'per-' and 'hypo-' modify the names of polyatomic ions? Provide examples.

