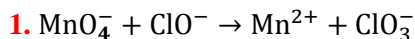
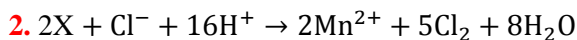


Ionli REDOX



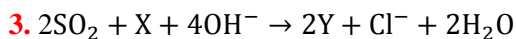
Ishqoriy muhitda borgan reaksiya eng kichik butun sonlar bilan tenglanganda,  $OH^-$  ko'effitsiyentini toping.

- A) 14    B) 12    C) 10    D) 8



Reaksiyada X bilan ko'rsatilgan ionning Mg bilan hosil tuzi formulasini ko'rsating.

- A)  $MgMnO_4$     B)  $Mg(MnO_4)_2$   
C)  $MgMnO_3$     D)  $MgMnO_2$



X va Y o'rniga quyidagilardan qaysilari yozilganda tenglik saqlanadi?

- |    | X         | Y           |
|----|-----------|-------------|
| A) | $ClO_2^-$ | $SO_3$      |
| B) | $ClO_2^-$ | $SO_4^{2-}$ |
| C) | $ClO_4^-$ | $SO_3^{2-}$ |
| D) | $ClO^-$   | $SO_3^{2-}$ |

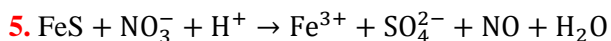


**Kislotali muhitda borgan reaksiya uchun:**

- I.  $Cl^-$  qaytaruvchidir;  
II.  $Cr_2O_7^{2-}$  da Cr ning oksidlanish darajasi +6 ga teng;  
III. 6 mol  $Cl^-$  ioni uzatgan elektronlarni 1 mol  $Cr_2O_7^{2-}$  dagi Cr biriktirib oladi.

**Berilganlardan qaysilari to'g'ri?**

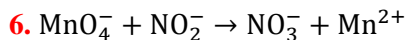
- A) Faqat I    B) I va II    C) II va III    D) I, II va III



Reaksiyaga ko'ra, 8,8 g FeS bilan qoldiqsiz reaksiyaga kirishishi uchun necha mol  $NO_3^-$  va  $H^+$  kerak?

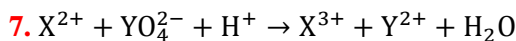
[Fe: 56, S: 32]

- |    | $NO_3^-$ | $H^+$ |
|----|----------|-------|
| A) | 0,3      | 0,4   |
| B) | 0,6      | 0,8   |
| C) | 0,3      | 0,8   |
| D) | 0,2      | 0,4   |



Reaksiya kislotali va ishqoriy muhitda alohida-alohida yozib eng kichik butun sonlar bilan tenglanganda  $H^+$  va  $OH^-$  ionlari ko'effitsiyentlari nechaga teng bo'ladi?

- |    | $H^+$ | $OH^-$ |
|----|-------|--------|
| A) | 6     | 6      |
| B) | 4     | 6      |
| C) | 6     | 8      |
| D) | 8     | 6      |

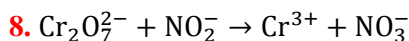


**Reaksiyasi uchun:**

- I.  $X^{2+}$  qaytaruvchidir;  
II. 1 mol  $X^{2+}$  oksidlanishi uchun 5 mol elektron kerak;  
III.  $YO_4^{2-}$  dagi Y ning oksidlanish darajasi +7 ga teng.

**Berilgalardan qaysilari noto'g'ri?**

- A) Faqat I    B) Faqat II    C) I va III    D) I, II va III

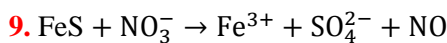


**Reaksiyasi uchun:**

- I.  $NO_2^-$  dagi N elektron berib oksidlangandir;  
II. Elektron olish-berish N va Cr atomlari o'rtasida bo'ladi;  
III. Kislotali muhitda eng kichik butun sonlar bilan tenglashtirilganda  $H_2O$  ko'effitsiyenti 5 bo'ladi.

**Berilganlardan qaysilari to'g'ri?**

- A) Faqat I    B) I va II    C) II va III    D) I, II va III

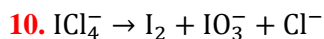


**Reaksiyasi uchun:**

- I. Faqatgina Fe oksidlangandir;  
 II.  $\text{NO}_3^-$  dagi azot, Fe va S uzatgan elektronlarni oladi;  
 III.  $\text{NO}_3^-$  dagi N oksidlovchidir.

**Berilganlardan qaysilari to'g'ri?**

- A) Faqat I    B) I va III    C) II va III    D) I, II va III



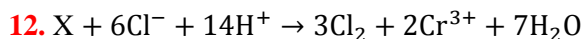
Reaksiyasi kislotali muhitda amalga oshgan. Reaksiyani eng kichik butun sonlar bilan tenglanganda  $\text{H}_2\text{O}$  oldidagi koeffitsiyent nechaga teng bo'ladi?

- A) 12    B) 10    C) 9    D) 8



Reaksiyasi eng kichik butun sonlar bilan tenglanganda  $\text{H}_2\text{O}$  oldidagi koeffitsiyent nechaga teng bo'ladi?

- A) 6    B) 3    C) 4    D) 8



X quyidagilardan qaysinisi bo'la oladi?

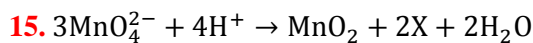
- A)  $\text{CrO}_4^{2-}$     B)  $\text{Cr}_2\text{O}_3^{2-}$     C)  $\text{Cr}_2\text{O}_7$     D)  $\text{Cr}_2\text{O}_7^{2-}$

13. Ishqoriy muhitda  $\text{Br}_2$  gazi  $\text{Br}^-$  va  $\text{BrO}_3^-$  ionlarini hosil qiladi. Reaksiyani eng kichik butun sonlar bilan tenglanganda  $\text{H}_2\text{O}$  oldidagi koeffitsiyent nechaga teng bo'ladi?

- A) 3    B) 2    C) 4    D) 6

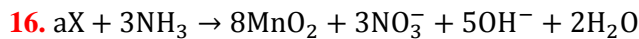
14.  $\text{As}_2\text{S}_3 + \text{NO}_3^- + \text{H}_2\text{O} + \text{H}^+ \rightarrow \text{NO} + \text{SO}_4^{2-} + \text{H}_3\text{AsO}_4$   
 Reaksiyasida  $\text{As}_2\text{S}_3$  koeffitsiyenti 3 qilib olib tenglanganda  $\text{H}^+$  oldidagi koeffitsiyent nimaga teng bo'ladi?

- A) 20    B) 16    C) 12    D) 10



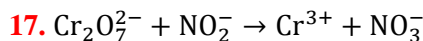
Redox tenglamasida X tarkibida bo'lgan Mn atomining oksidlanish darajasi nimaga teng bo'ladi?

- A) +3    B) +5    C) +7    D) -1



Yuqoridagi redox tenglamasiga ko'ra, a va X quyidagilardan qaysi biri bo'ladi?

|    | a  | X                   |
|----|----|---------------------|
| A) | 8  | $\text{MnO}_4^-$    |
| B) | 8  | $\text{MnO}_4$      |
| C) | 10 | $\text{MnO}_4^-$    |
| D) | 5  | $\text{MnO}_4^{2-}$ |



Kislotali muhitda amalga oshgan yuqoridagi tenglama eng kichik butun sonlar bilan tenglanganda:

- I.  $\text{H}_2\text{O}$  koeffitsiyenti 4 bo'ladi;  
 II.  $\text{NO}_3^-$  koeffitsiyenti 6 bo'ladi;  
 III. 1 mol  $\text{Cr}_2\text{O}_7^{2-}$  ioni 3 mol  $\text{NO}_2^-$  ioni bilan qoldiqsiz reaksiyaga kirishadi.

**Berilganlardan qaysilari to'g'ri?**

- A) Faqat I    B) I va II    C) I va III    D) I, II va III

18. Ishqoriy muhitda  $\text{Cl}_2$  moddasidan  $\text{Cl}^-$  va  $\text{ClO}_3^-$  ionlari hosil bo'ladi. Reaksiya tenglamasini eng kichik butun sonlar bilan tenglanganda:

- I.  $\text{H}_2\text{O}$  koeffitsiyenti 3 bo'ladi;  
 II.  $\text{ClO}_3^-$  koeffitsiyenti 1 bo'ladi;  
 III.  $\text{OH}^-$  ioni reagentlar tomonida bo'ladi.

**Berilganlardan qaysilari to'g'ri?**

- A) Faqat I    B) I va II    C) II va III    D) I, II va III



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