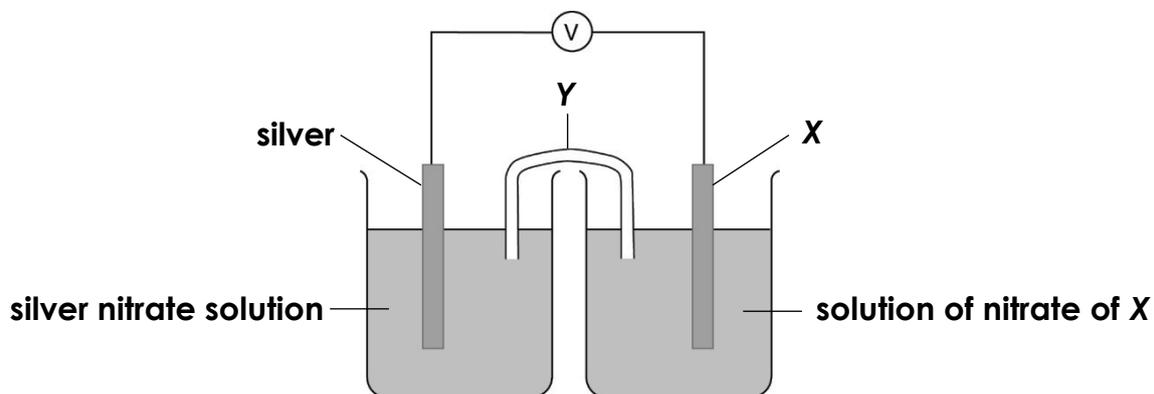


Quiz (Redox Reaction in Chemical Cells)

Multiple-choice

1. Silver and metal X are immersed in their nitrate solutions respectively. Electrons flow from X to silver in the external circuit.



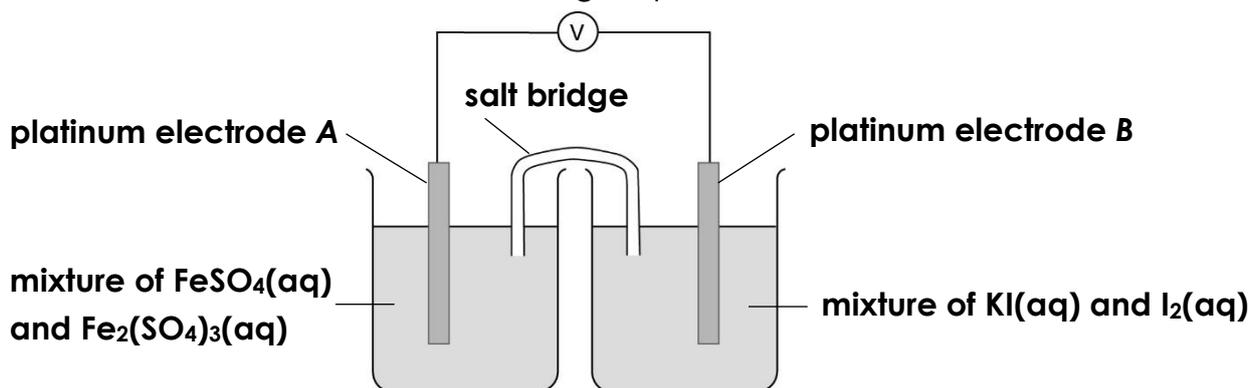
Which of the following combinations is correct?

- | | <u>X</u> | <u>Silver</u> | <u>Y</u> |
|----|----------|---------------|-----------------------------|
| A. | Cathode | Anode | Potassium chloride solution |
| B. | Anode | Cathode | Potassium chloride solution |
| C. | Cathode | Anode | Potassium nitrate solution |
| D. | Anode | Cathode | Potassium nitrate solution |
2. The following equation shows the overall reaction of a sodium-sulphur cell:
 $2\text{Na} + \text{S} \rightarrow \text{Na}_2\text{S}$

What are the changes occurred at the anode and the cathode respectively?

- | | <u>Anode</u> | <u>Cathode</u> |
|----|--|--|
| A. | $\text{Na}^+ + \text{e}^- \rightarrow \text{Na}$ | $\text{S}^{2-} \rightarrow \text{S} + 2\text{e}^-$ |
| B. | $\text{S}^{2-} \rightarrow \text{S} + 2\text{e}^-$ | $\text{Na}^+ + \text{e}^- \rightarrow \text{Na}$ |
| C. | $\text{Na} \rightarrow \text{Na}^+ + \text{e}^-$ | $\text{S} + 2\text{e}^- \rightarrow \text{S}^{2-}$ |
| D. | $\text{S} + 2\text{e}^- \rightarrow \text{S}^{2-}$ | $\text{Na} \rightarrow \text{Na}^+ + \text{e}^-$ |

Questions 3 and 4 refer to the following simple chemical cell:



3. Which of the following statements about the chemical cell are correct?
- (1) The platinum electrodes do not take part in the cell reaction.
 - (2) The salt bridge can be prepared by sodium sulphate solution.
 - (3) Platinum electrode A is the negative electrode.
- A. (1) and (2) only B. (1) and (3) only
 C. (2) and (3) only D. (1), (2) and (3)
4. Which of the following is the observable change in the cell?
- A. Colourless gas bubbles evolve around platinum electrode A.
 - B. Silvery grey solid forms on platinum electrode A.
 - C. The solution around platinum electrode B becomes paler.
 - D. The solution around platinum electrode B becomes deeper.

Multiple Choice

1.	D
2.	C
3.	A
4.	D