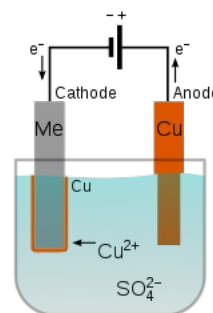


Careless Mistakes:

- Which of the following metals is the most corrosion resistant?
[Silver] [Gold] [Titanium] [Aluminium]
= [Gold] | ***Most corrosion resistant***
- Which of the following is/are the **ADVANTAGE(S)** of anodizing aluminium
[It makes aluminium stronger]
[It enables dyeing on the metal surface.]
[It increases the percentage of oxygen in a piece of aluminium.]
= [It enables dyeing on the metal surface] | ***C is incorrect**, Although it is fact **BUT NOT advantage***

Misconception:

- Which situation would accelerate the rusting?
[Placed in a desert] [Completely wrapped with tin] [Painted] [None of above]
= [None of above] |
***Obviously, A&C are incorrect ans. B is also incorrect because of the completely wrapping. Although tin is less reactive than iron, the completely wrapping can separate the contact between iron & oxygen & water ***
- Which of the following statement CANNOT explain the rapid rusting of iron car exhaust pipes?
[Exhaust gases contain water vapour.]
[Car exhaust pipes are under high temperature]
[Exhaust gases contain much oxygen.]
[Exhaust gases usually contain acidic compounds]
= [Exhaust gases contain much oxygen.] |
***Misconception: A is incorrect ans. Because the water vapour can formed under the high temp. of the pipe & that water vapour can react with iron pipe more easily.**
- Tin can forms a protective oxide layer to keep water and oxygen away from iron**
- Which of the following statements about electroplating is INCORRECT?
[The object to be electroplated makes the anode.]
[Electroplating can improve the object's appearance.]
[Metals low in the reactivity series are usually used as plating materials.]
[Chromium can be used to plate objects in electroplating]
= [The object to be electroplated makes the anode] |
***Misconception: anode is '陽極 | 正極', material would loss electron to anode → the object connect to cathode '負極' the electroplating material metal cation transfer to object through salty solution.**
- Which of the following are the reasons for iron to use widely in construction & transportation?
[iron is the cheapest metal]
[iron is strong]
[there are methods of preventing or slowing down rusting]
[iron is the most ductile and malleable]
= 1&2&3 | ***Iron is not the most ductile & malleable***
- Aluminium metal is protected by anodizing. This process adds
[alumminum] [zinc] [oxygen] [grease]
= [oxygen] |
***Misconception: Anodizing means the object connect to an anode + More Oxygen → Give electron → another reactive metal/aluminium → obj. form more oxide = LOSS <> ADD**

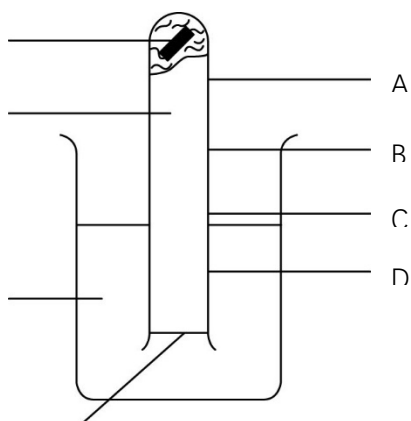


Challenging Question:

iron strip wrapped
with moist wool

air

water



water level at the beginning of the
experiment

- A setup is shown below. A piece of iron strip wrapped by moist wool is placed inside a test tube. The test tube is inverted in water, trapping air in the tube. What will be the water level after a few days?

[A] [B] [C] [D]

= D | The iron strip reacted with all the oxygen in the tube. As air contains about 20% of oxygen, the water level should rise up by 1/5 of the air column.