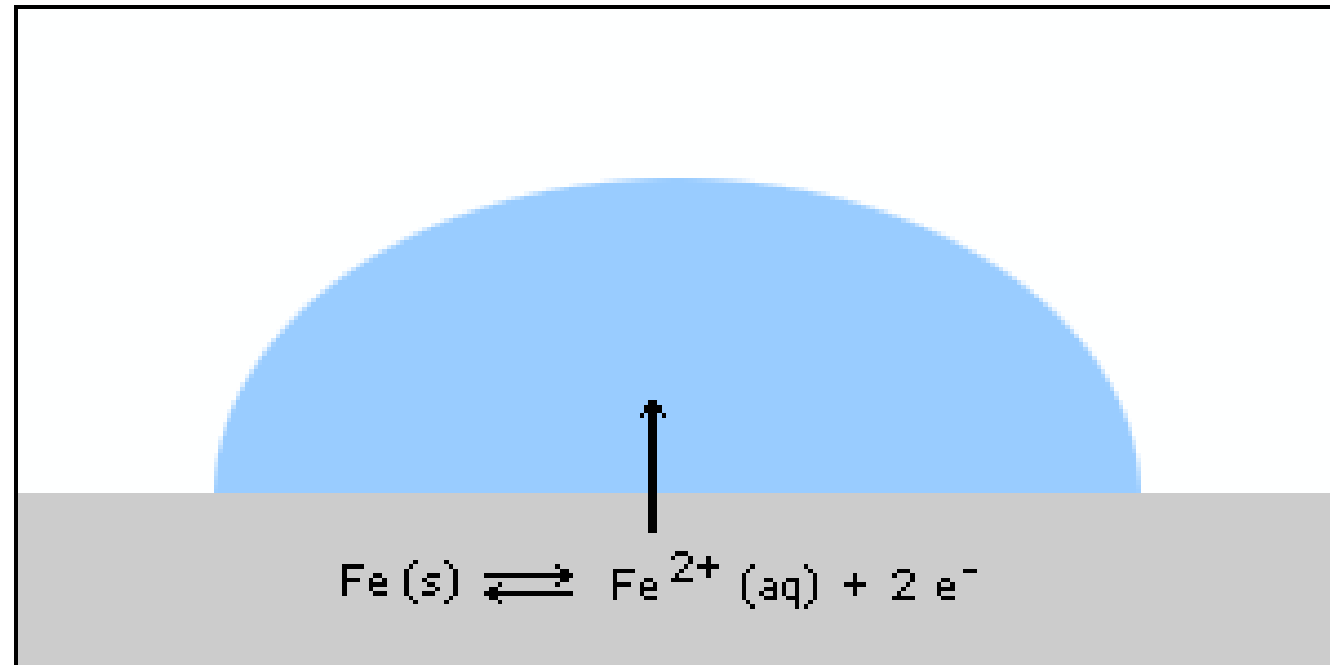


CORROSION MECHANISM

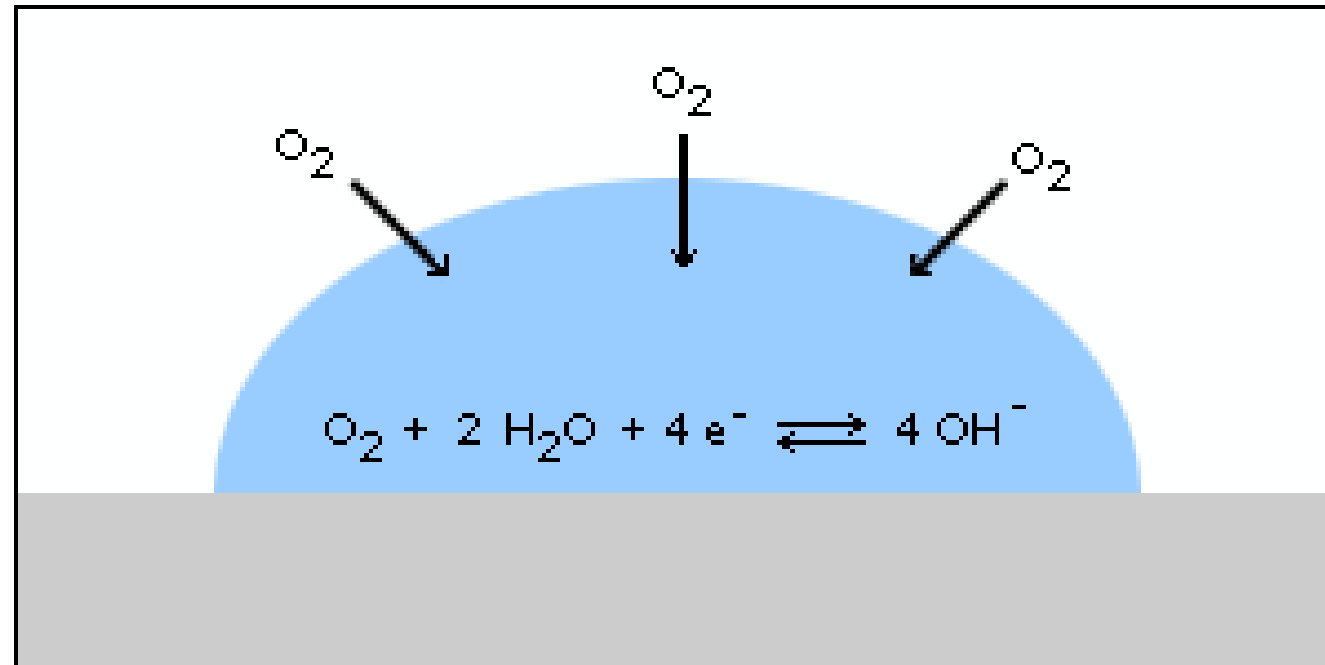
STEP 1



An equilibrium is established at the surface. The iron (II) ions dissolve in the water. The electrons can be passed through the surface of the iron plate.

CORROSION MECHANISM

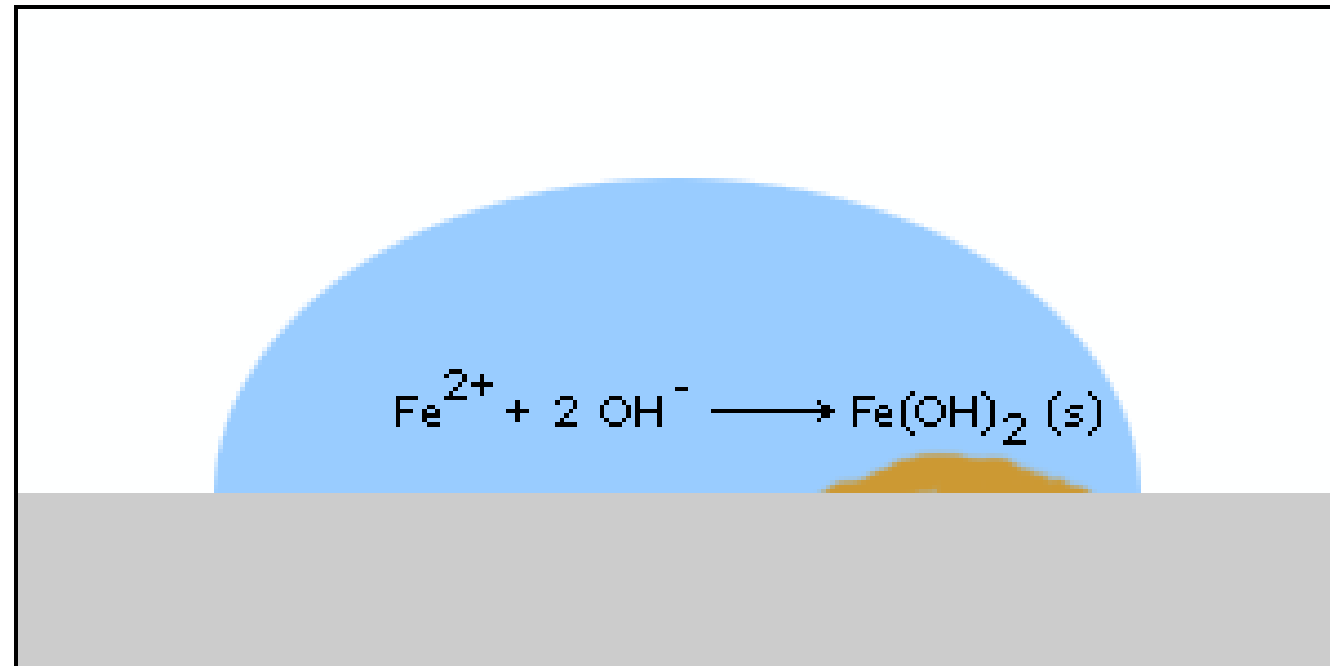
STEP 2



The water droplet also contains oxygen molecules from the air. These molecules can react with the electrons that have been released from the half-reaction from iron (see step 1). In this reaction occur hydroxide ions.

CORROSION MECHANISM

STEP 3



The water droplet now contains iron (II) ions and hydroxide ions. These form a deposit of iron (II) hydroxide. Under the influence of oxygen and water the iron hydroxide can be further oxidized to rust (= iron (III) oxide).