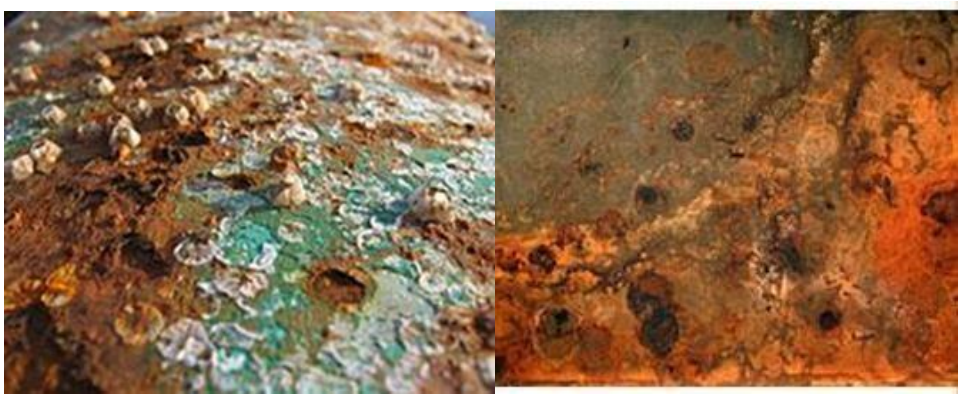
Corrosion and types of corrosion

- Corrosion is the damage of a metal as a result of chemical reactions between it and the surrounding environment.
- Corrosion can occur in materials other than metals, such as ceramics or polymers.
- Corrosion damage the useful properties of materials and structures including strength, appearance and permeability to liquids and gases.



CONDITIONS FOR CORROSION

The components necessary for corrosion to occur:

1. Metals (such as iron)
2. Oxygen (usually from the atmosphere)
3. An electrolyte (usually water).

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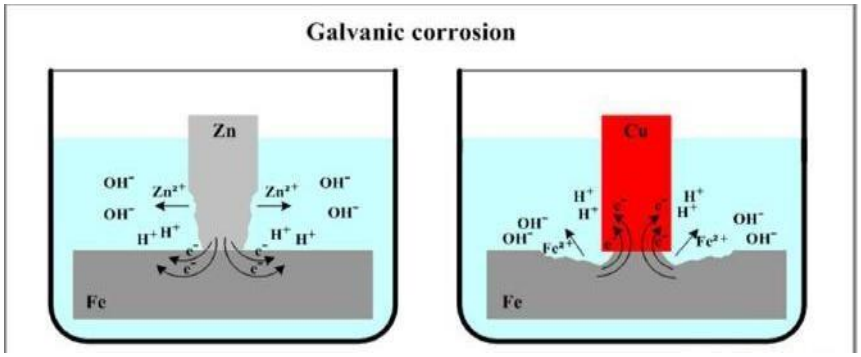
TYPES OF CORROSIONS

1. **UNIFORM CORROSION:** is considered an even attack across the surface of a material and is the most common type of corrosion. uniform corrosion adds colour and appeal to a surface.

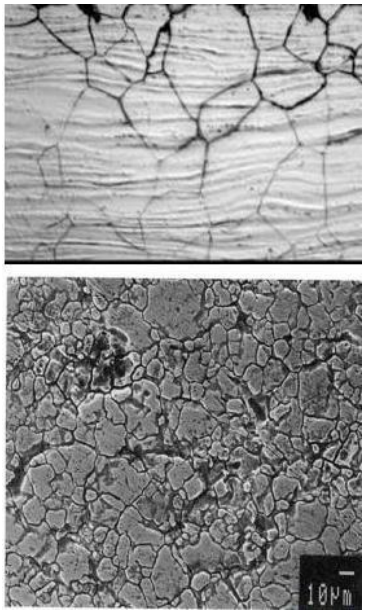
2. **PITTING CORROSION:** Pitting is dangerous because it can lead to failure of the structure with a relatively low overall loss of metal.

3. **Galvanic Corrosion:** It occurs when two or more dissimilar metals are brought into electrical contact under water.



4. **Stress corrosion cracking:** is the cracking induced from the combined influence of tensile stress and a corrosive environment.

5. **Intergranular Corrosion:** The microstructure of metals and alloys is made up of grains, separated by grain boundaries This form of corrosion is usually associated with chemical segregation effects.



HOW TO PREVENT CORROSION?

1. Protect the Metal Surface.
2. Make sure the metal surface stays clean and dry.
3. Use drying agents.
4. Use a coating or barrier product such as oil, paint or carbon fibre coating.