Producing green hydrogen by electrolysis from renewable sources involves breaking down water molecules (H₂O) into oxygen (O₂) and hydrogen (H₂).

1. The water used in the electrolysis must contain **salts and minerals** to conduct the electricity.

2. Two **electrodes** are immersed in the water and connected to a power source and a direct current is applied.

3. The dissociation of hydrogen and oxygen occurs when the electrodes attract **ions with an opposite charge** to them.

4. During the electrolysis, an **oxidation-reduction reaction** occurs due to the effect of the electricity.

**CATHODIC REACTION**

\[ 4H^+ + 4e^- \rightarrow 2H_2 \]

**ANODIC REACTION**

\[ 2H_2O \rightarrow O_2 + 4H^+ + 4e^- \]