How is green hydrogen obtain?

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:

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


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