## **Electrolysis**

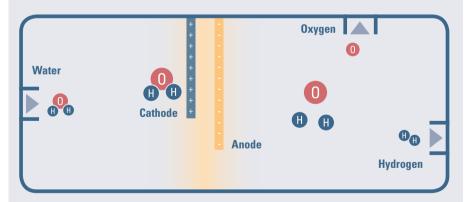


The electrolysis of water consists of two partial reactions, which take place at the two electrodes (cathode and anode chambers).

Cathode space:  $2 H_2O + 2 e^- \rightarrow H_2 + 2 OH$ Anode space:  $6 H_2O \rightarrow O_2 + 4 H_3O + 4 e^-$ 

The overall reaction scheme of this redox reaction is:

$$2 H_2O(I) \xrightarrow{\text{Electrolysis}} 2 H_2(g) + O_2(g)$$



In this process an alkaline electrolysis is used. KOH is added to raise the conductivity of hydrogen, which improves the efficiency factor.