

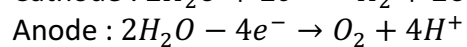
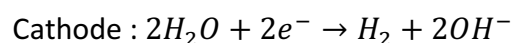
Answer on the question #63183, Chemistry / General Chemistry

Question:

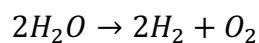
When passing a low voltage current through a solution of distilled water and sodium carbonate a gas is produced, what is that gas?

Answer:

Sodium is an active metal, so it can't be reduced in water solution. Neither, carbonate anion can't be oxidized. Then, when a low voltage is passed through sodium carbonate solution in distilled water, it is water who is reduced and oxidized :



Overall reaction :



Gases produced during the electrolysis are hydrogen H_2 (cathode) and oxygen O_2 (anode).