

ANALYSIS OF HYDRGEN GAS AS FUEL
BY ELECTROCHEMICAL REACTION AND ITS
USES
IN POPULAR PUBLIC IN
EVERYDAY LIFE.

AUTHOR:

- ***Dr.Keya Adak (KALINGA
UNIVERSITY,Naya Raipur,Chhattisgarh)**

- **Co-author: Master Sumit & Master Yash
Sinha(Students of Western India Institute
of Aeronautics)**

(EmailD:

sheyninternationalprincipal@gmail.com /
keyaadak5672@gmail.com)

Introduction:

Hydrogen is already used by our researchers as powerful resources for numerous scientific research fields. This project has a goal to utilize hydrogen to regulate our daily life in which electrolysis process of universal solvent can be used as resources of generous amount of hydrogen gas. Our green earth is the resources of universal solvent in 3:4 ratios. Therefore this project can utilize the opportunity of huge resources of water.

Keyword: Hydrogen, electrolysis, PEM, SMR, biomass,
UAV

Methodology:

- Steam methane reforming
- Biochemical Reactions
- Gasification of biomass
- Solar-thermal water splitting technique
- Electrolysis

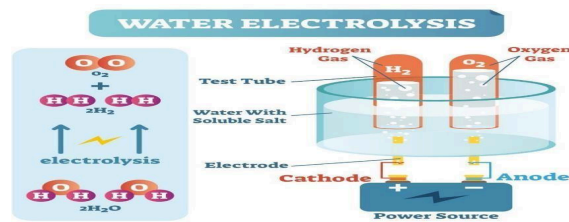


Figure:1

However hydrogen gas is very powerful resources as fuel but its storage process for our daily uses is very troublesome. But this project is aimed to overcome all hurdles. Also speed up of electrolysis process is another major criterion of this project.

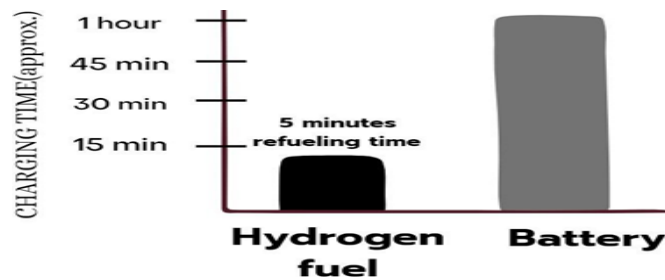


Figure:2

The project already took challenges to utilize huge resources of green earth to live green and world's economy will also be privileged if this project can fulfilled its aim. The aim of this project can also bring smile among poor operator of motorized vehicles which can bring greenery in our everyday life.

Findings:

- **Powertrain:** The Toyota Mirai uses a cutting-edge hydrogen-to-electricity fuel cell system to drive an electric motor. The electric motor has a power output of 128 kW (172 horsepower) and 300 Nm of torque, and it performs quietly and smoothly.
- **Range:** The Mirai's extended range of about 650 kilometers (404 miles) on a full tank of hydrogen enables longer journeys with fewer stops for fueling.
- **Refueling Time:** Refueling a Mirai with hydrogen only takes a few minutes and is just as convenient as refueling with regular petrol.

Conclusion:

In conclusion Hydrogen fuel cells could also significantly improve the endurance and capabilities of drones. Drones can travel farther and complete more difficult tasks thanks to hydrogen fuel cells' longer flight times and quicker refueling options compared to conventional lithium-ion batteries. This is advantageous for operations requiring extended endurance, such as aerial surveillance, package delivery, and emergency response operations.

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