7. Performance analysis Hydroxy Gas Generator:

This study was done on producing hydroxy gas analysis its performance under varying conditions. For the fabrication process stainless steel sheets of 20 gage was used. A PVC enclosure was used holding electrode, electrolyte and produced gas. The produced gas was later passed from the PVC enclosure. A car battery was used for the electrolysis process. Potassium Hydroxide was used as electrolyte.



Fig: HHO Production

The production rate was tested under three conditions:

a. Effect of electrolyte concentration:

| Concentration of KOH | Production of HHO Gas |
|----------------------|-----------------------|
| (M) | (ml/min) |
| 0.01 | 30 |
| 0.1 | 200 |
| 0.2 | 400 |
| 0.3 | 610 |

b. Effect of time at 0.1M KOH:

| Time | Production of HHO Gas |
|-------|-----------------------|
| (min) | (ml/min) |
| 1 | 200 |
| 2 | 300 |
| 3 | 400 |
| 4 | 430 |
| 5 | 450 |

c. Effect of temperature 0.1M KOH:

| Temperature | Production of HHO Gas |
|-------------|-----------------------|
| (K) | (ml/min) |
| 300 | 450 |
| 328 | 510 |
| 355 | 650 |
| 403 | 690 |