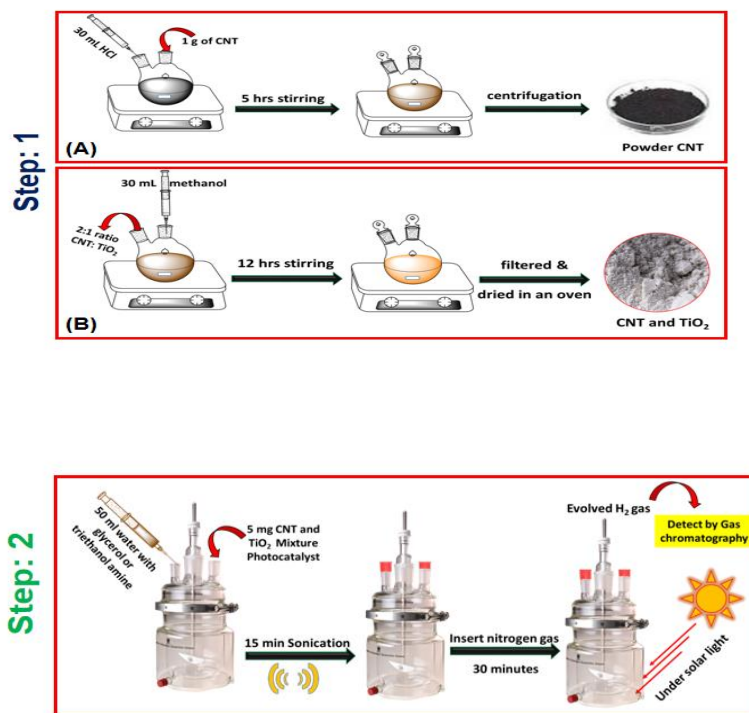


Solar-driven Hydrogen Production through Photocatalytic Water-Splitting technique

Objectives:

- To design and develop a carbon nanotubes with TiO_2 photocatalyst using sol-gel and sonochemical method.
- To characterize the developed carbon nanotubes with TiO_2 photocatalyst using analytical techniques
- To design develop the experimental setup for Solar-Driven Hydrogen Production through Water-Splitting Cycle.
- To optimize the various parameters including synthesis, reaction parameters to enhance the hydrogen production activity.
- To test and measure the solar-driven production of hydrogen using Gaschromatographic technique.

Schematic diagram of Solar-driven hydrogen production :



Outcome:

Solar H_2 production will play a considerable role in making H_2 an important part of our clean, secure, and affordable energy future.