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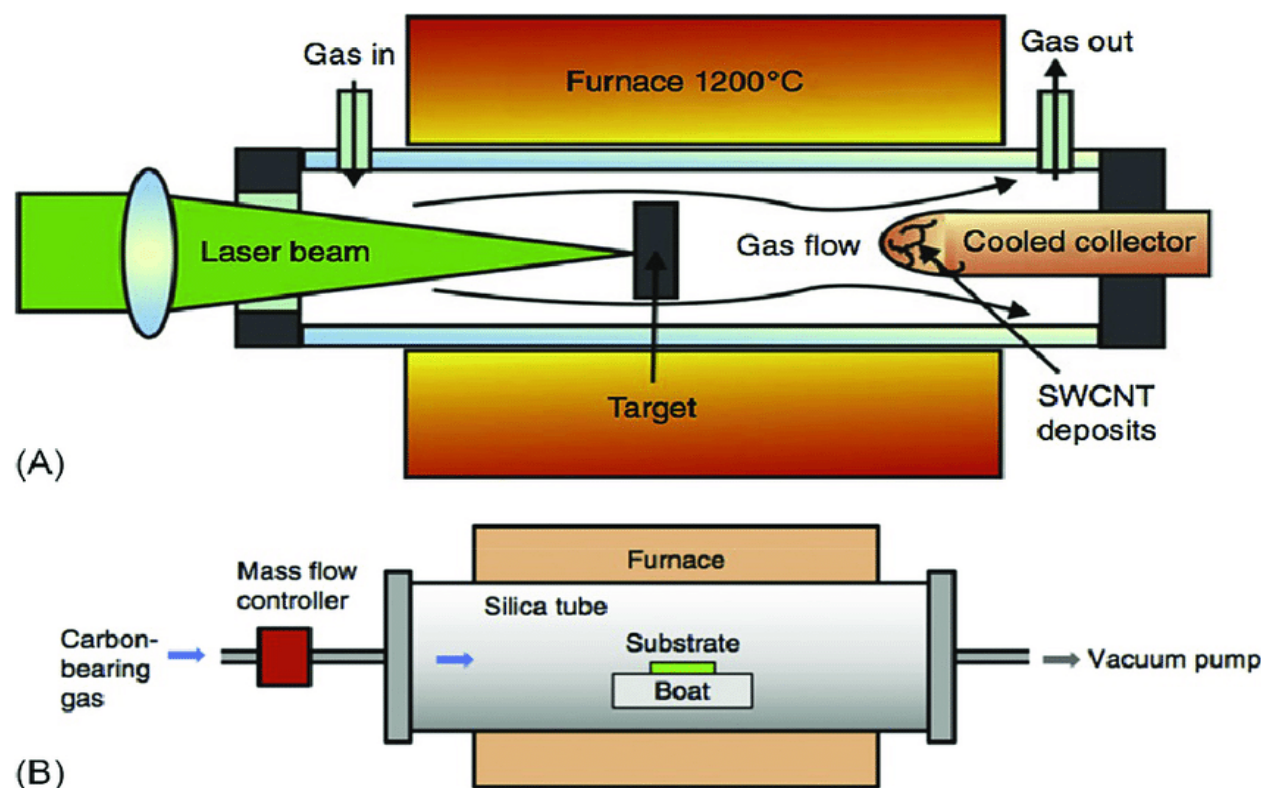
# **LASER ABLATION METHOD**

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## DEFINITION:

The method in laser ablation techniques, high power laser pulse is used to evaporate the material from target. The total mass ablated from the target per laser pulse is called as ablation rate .





- This method involves vaporisation of targeted materials.
- Vaporisation of targeted materials containing small amounts of catalyst Ni or Co by passing an intense laser beam at a high temperature about 120 degree Celsius in a quartz tube.
- Simultaneously, an inert gas such as helium gas is allowed to pass through the reactor to sweep the evaporated particles from the furnace to the colder collector.

## USES:

- Nano tubes having a diameter of 10 – 20 nm can be produced by this method
- Ceramic particles can be produced
- Other materials like Silicon, Carbon can also be converted into nano particles by this method

## ADVANTAGES:

- It is very easy to operate
- It is eco friendly
- The amount of heat required is less
- This process is economical