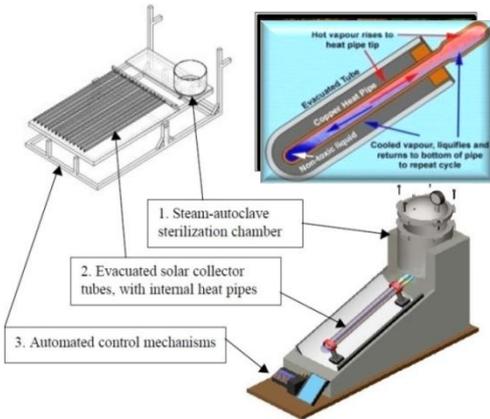


# NEWER TECHNOLOGIES IN BIOMEDICAL WASTE MANAGEMENT

## SOLAR AUTOCLAVE

Solar energy generates steam through solar collector tube. Steam is collected in a vessel which under pressure is used as Autoclave



### Advantages

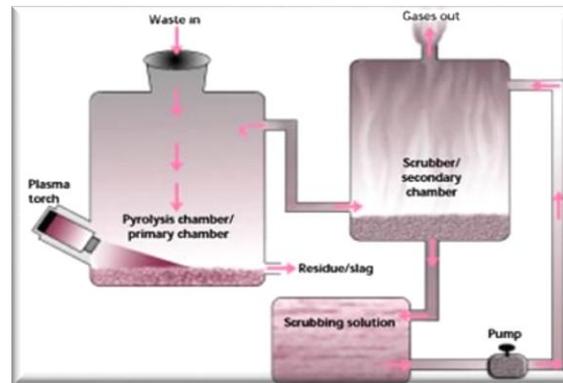
Easy set up & cost effective.  
Useful in rural areas.  
Less maintenance cost.

### Disadvantages

Time taking procedure.  
Not useful in insufficient sunlight areas.  
Not useful in rainy season.

## PLASMA PYROLYSIS

Based on thermo-chemical properties of plasma. Generation of high temperature by plasma torches ( $> 1000^{\circ}\text{C}$ ) Disintegration of organic waste by intense heat in absence of oxygen



### Advantages

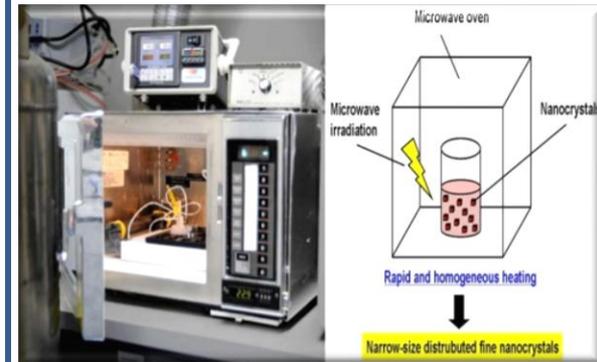
Eco-friendly & green technology.  
Disposal of all types of waste (Solid municipal, bio-medical & hazardous).  
No production of toxic residues.

### Disadvantages

Technique specific apparatus & set up is required

## MICROWAVE

High frequency microwaves (300-300,000 megahertz) causes particles in waste to vibrate. Vibrations lead to generation of heat which disinfects waste material



### Advantages

Targets material from inside out.  
Less maintenance cost.  
No harmful air emissions & liquid discharges.  
Reduced volume of waste residues.  
Safe for landfill disposal.  
Effective on sharps & bulk liquid.

### Disadvantages

High investment cost.