

Q: Define Bio-Fuel and how to produce Bio-Diesel?

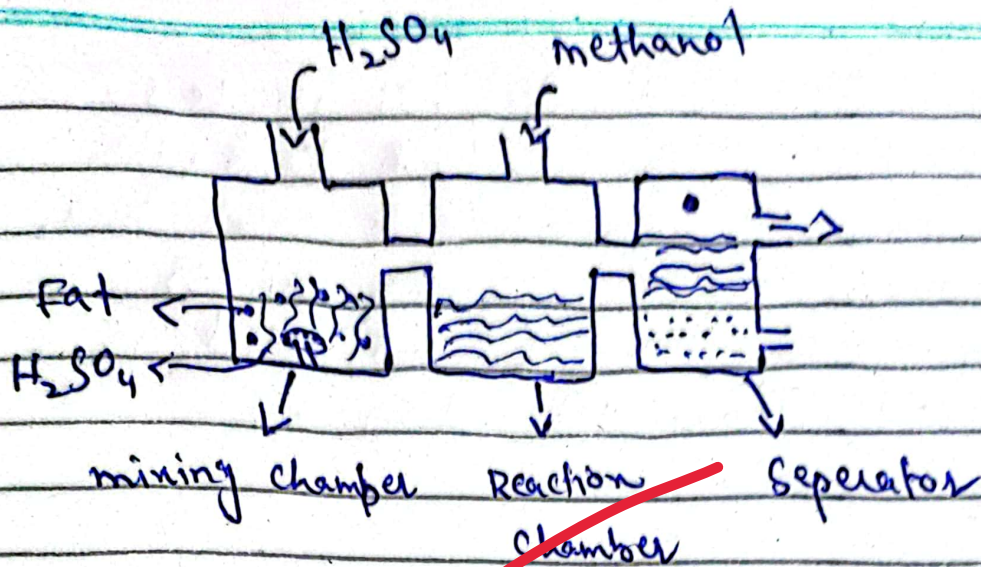
ANS: Bio fuel is another source of fuel. Bio fuel are such fuel which are derived from biological material and these biological materials are animal waste, plant waste sugar rich resources, we can also use oil rich resources such as ~~oil~~ plant, mushrooms, sunflower ~~and~~ animal fat. There are three types of Bio-fuel:

- 1- Bio-Diesel
- 2- Bio-Gas
- 3- Bio-Ethanol

→ BIO-DIESEL :

Bio-Diesel are alternative to standard diesel. Bio diesel are comparatively environment friendly.

Bio diesel are produced by raw material which are ~~oil~~ in nature. we use ~~animal fat~~ to produce bio ~~diesel~~. To produce bio-diesel we need multiple chamber equipment.



In mixing chamber we put ~~fat~~ fat and H_2SO_4 and start the mixing chamber. The blade place in mixing chamber cut the fat into small peices and move it to reaction chamber. It is reaction chamber where maximum oil extraction take place. In separator all the other material stay at the bottom and oil stay at the top of the chamber. After the oil will be taken out and do further redefinement- we will add standard diesel in it.

Relate your headings to the qs statement

-> APPLICATION OF BIO-DIESEL :

Bio-Diesel can be use in various things like vehicle usage, Train usage, Industrial machinery etc. Bio Diesel are are much cleaner than standard diesel. It emits less

CO_2 , CO and SO_2 , it is less expensive than standard diesel. The countries using bio-diesel are China, Japan, Sweden etc. The process of production of bio-diesel is called Transesterification.

2.5