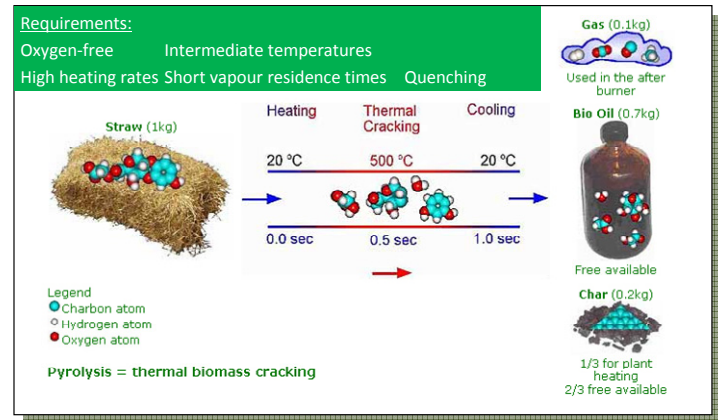


technology – flash pyrolysis

Flash Pyrolysis converts any type of organic material and plastics into bio-oil (liquid), non-condensables (gas) and char (solid), by rapidly heating the input material in an oxygen-deficient environment. Theoretically 70% bio-oil, 10% gas and 20% char can be obtained. The actual percentages vary in accordance with the material being pyrolysed and the pyrolytic circumstances applied.



Main features

- Relatively low temperature (400 – 650 °C)
- A wide variety of input materials:
 - Biomass
 - Wastes (biomass and/or plastics)
 - Sludges
 - ...
- Heat transfer medium: sand
- Optimal energy utilisation:
 - a flexible product – bio-oil
 - (green) steam/electricity/heat – gas
 - self-supporting in energy – char

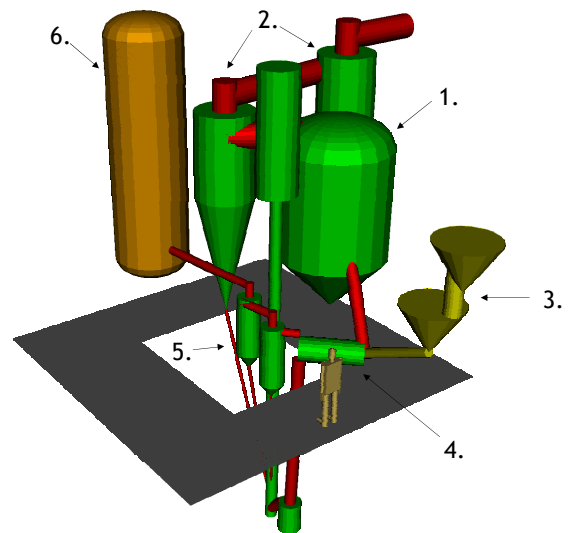
Bio-oil offers

- solutions for a wide variety of organic (waste) streams / plastics
- standardised flash pyrolysis plants of 5 t/h – small scale/decentralised (in co-exploitation)
- WtM / WtE
- green heat and electricity
- a second generation biofuel
- applicable in slow running diesel engines
- a part of the biorefineries concept (*in future*)
- chemical feedstock – energy vs material (*in future*)

Plants

- 100 kg/h demonstration plant – *phased out*
- 1.5 t/h test plant – *operational*
- 5 t/h commercial plant – *under construction*

Schematic view of the operational 1.5 t/h test plant



- | | |
|----------------------|----------------------|
| 1. Combustor | 4. Pyrolysis reactor |
| 2. Sand/ash cyclones | 5. Char cyclones |
| 3. Injection system | 6. Bio-oil condensor |

Contact details

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