



THE C-H-O FUEL MAP

This map makes clear the relationship between the elements of fuels, gasification and combustion: Carbon (C) ; Hydrogen, (H) and Oxygen, (O). The **H₂O-CO₂ axis** is the final target of all fuel combustion. The **H-CO axis** is the locus of synthesis gas, made from other fuels and used to make diesel and alcohol fuels and of **Carbohydrates**, CH₂O, the mother of all fossil and renewable fuels. **Biomass** also contains lignin, based on benzene. The various charcoals result from the thermal dehydration of biomass.

The C-H axis contains the important fossil fuel **hydrocarbons**: Oil and aromatics such as benzene, made at high temperatures; and the various **Coals**, shown as a variable zone, since the C-H ratio varies and there is usually some oxygen in coals.

Courtesy the Biomass Energy Foundation, BEF

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