Biomass Pyrolysis

Hemi-Cellulose composition was fixed at 30% mass fraction.

Vary Cellulose mass fraction from 0 to 70%.

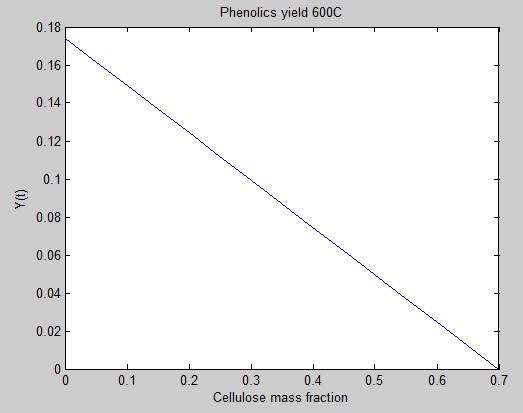
All yields are in mass fractions.

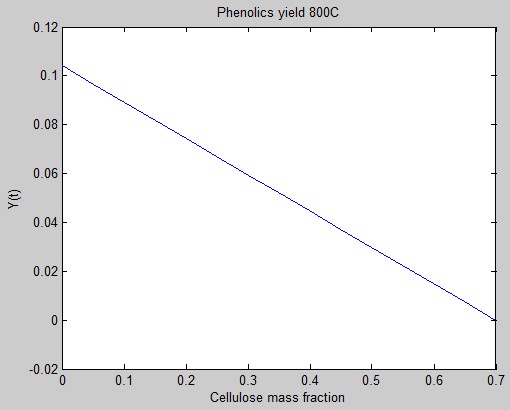
Observations:

* Some graphs show unexpected values when Cellulose mass fraction is equal to 0.
* Most graphs are perfectly linear.
* Quantity of trapped gases is negligible at higher temperatures.

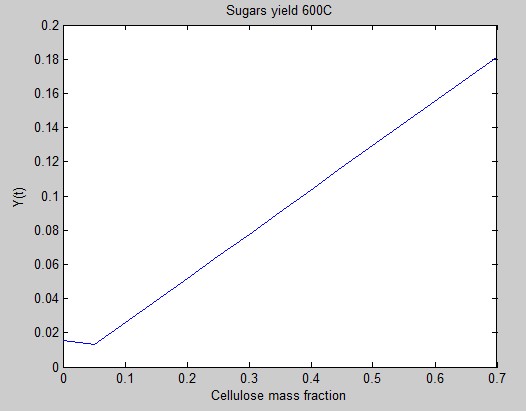
The region where cellulose mass fraction is between 30% and 55% is most commonly observed.

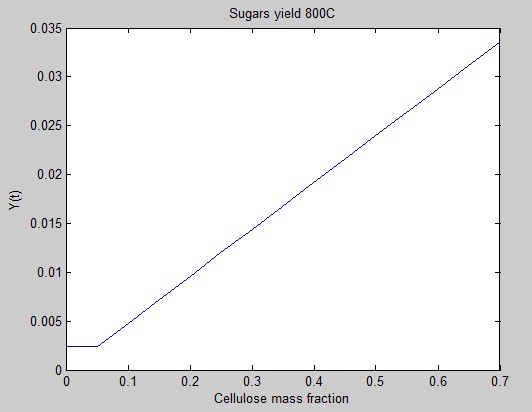
Phenolics: (p-Coumaryl,phenol,sinupaldehyde)



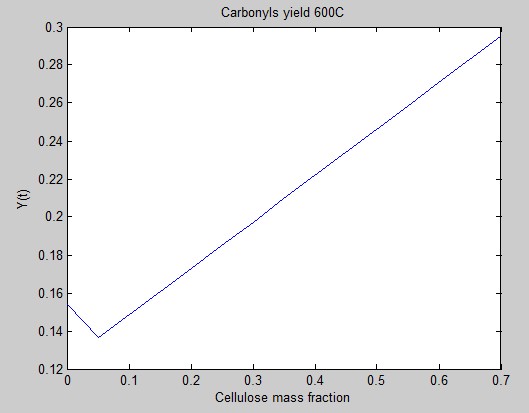


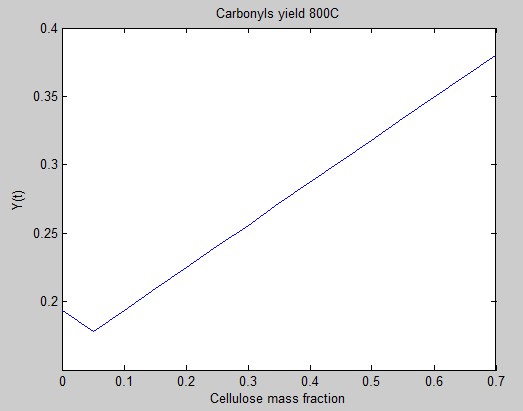
Sugars: (Xylose, Levoglucosan)



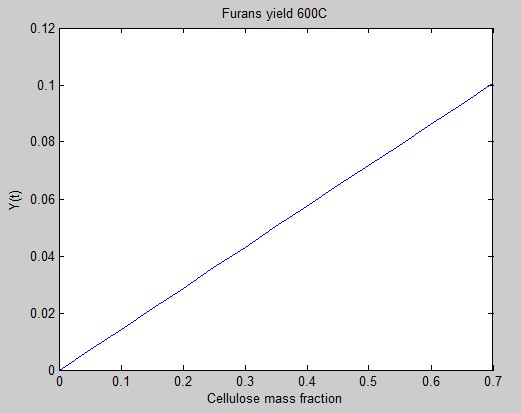


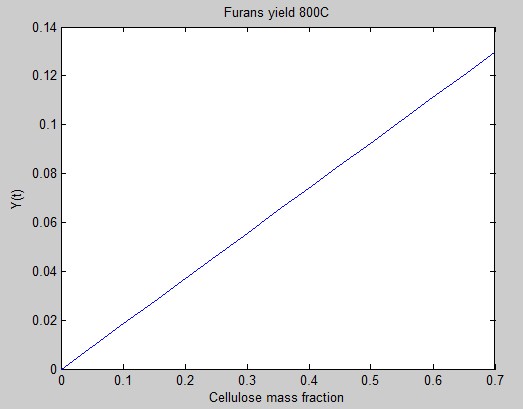
Carbonyls: (Acetaldehyde, Acetone, formic acid, formaldehyde, hydroxyl-acetaldehyde, glyoxal)



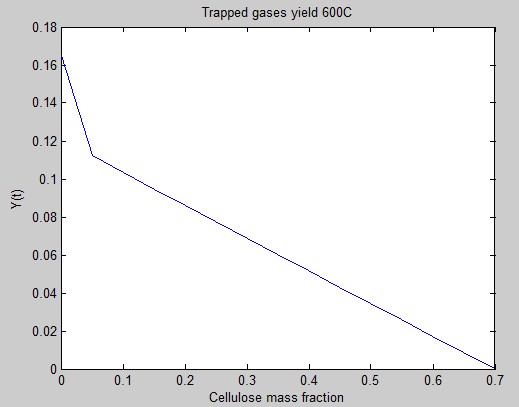


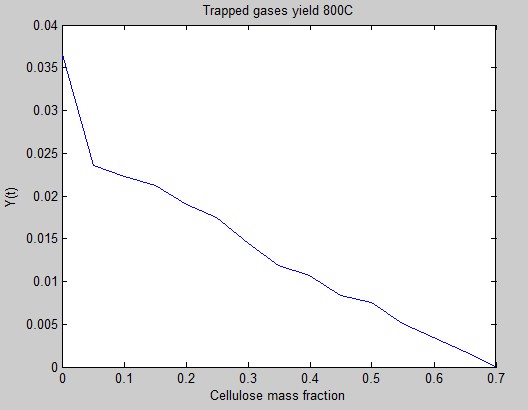
Furans: (Hydroxy methyl furfural)



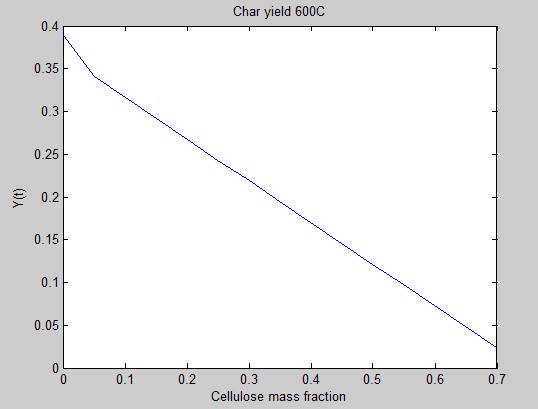


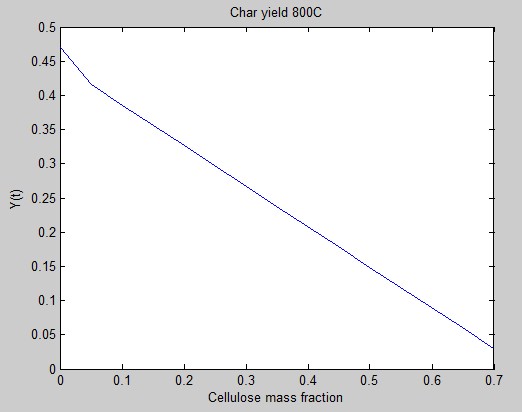
Trapped Gases: (Hydrogen, Methanol, carbon monoxide, methane, ethylene, carbon dioxide)



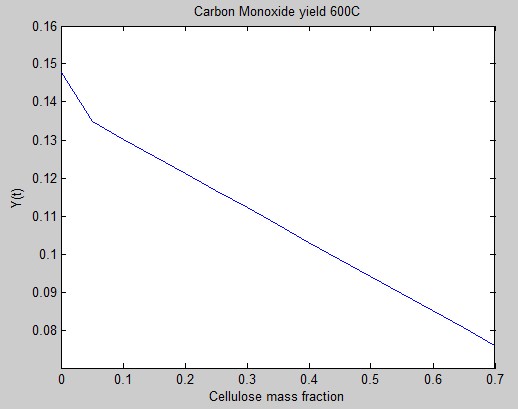


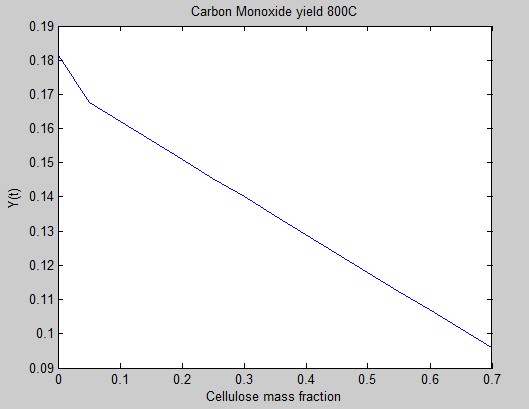
Char:



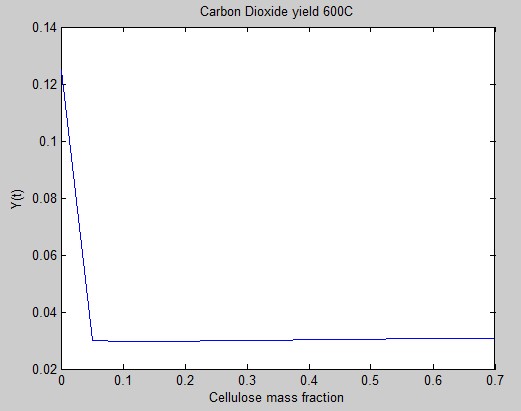


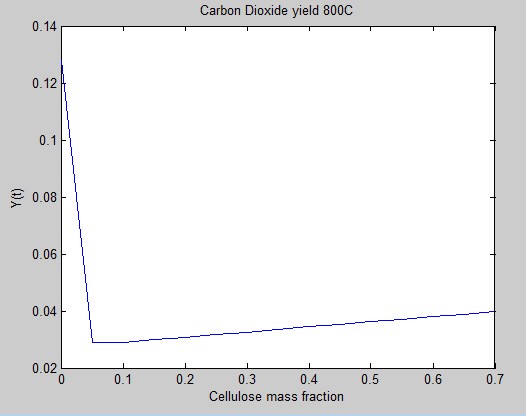
Carbon Monoxide:



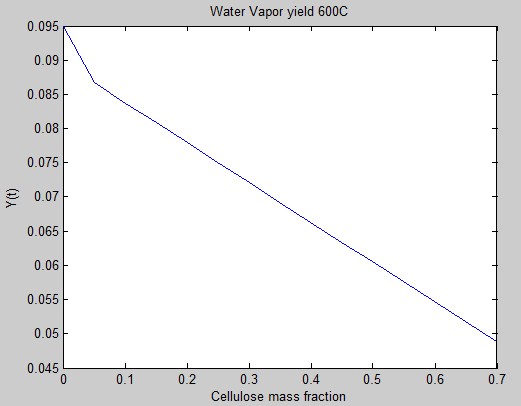


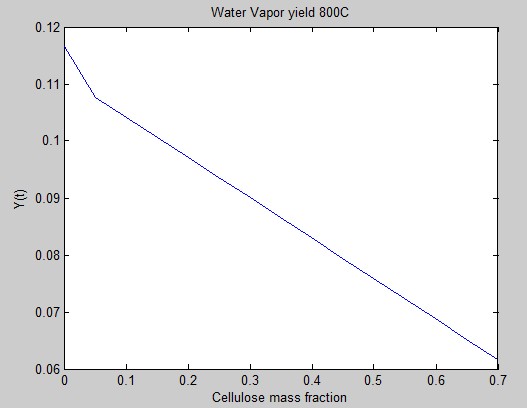
Carbon Dioxide



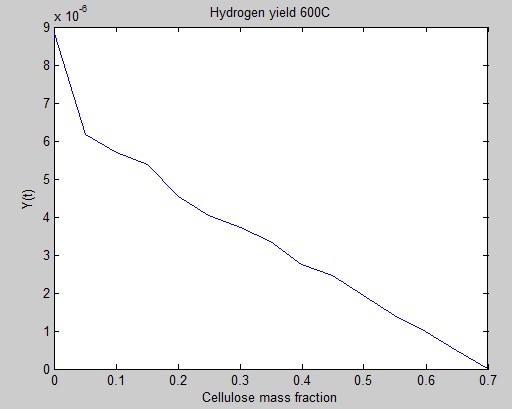


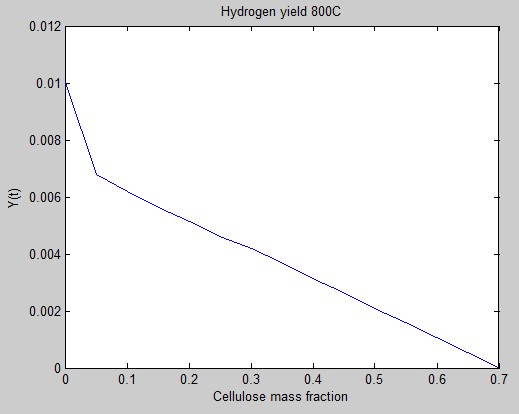
Water Vapor





Hydrogen





Methane

