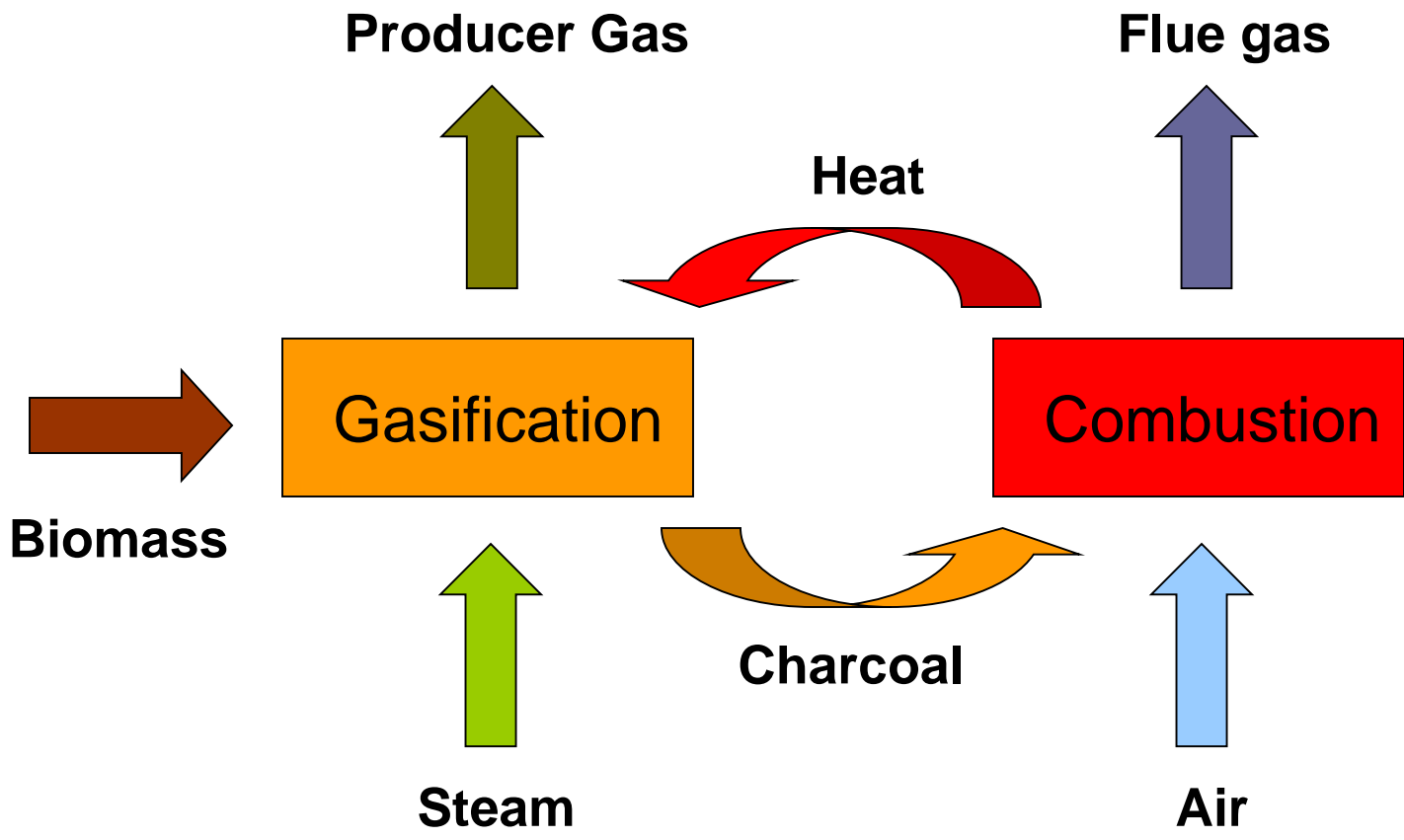




Biomass Gasification and Fischer-Tropsch-Synthesis for the Production of SAF

Christian Aichernig, REPOTEC

Gasification Concept

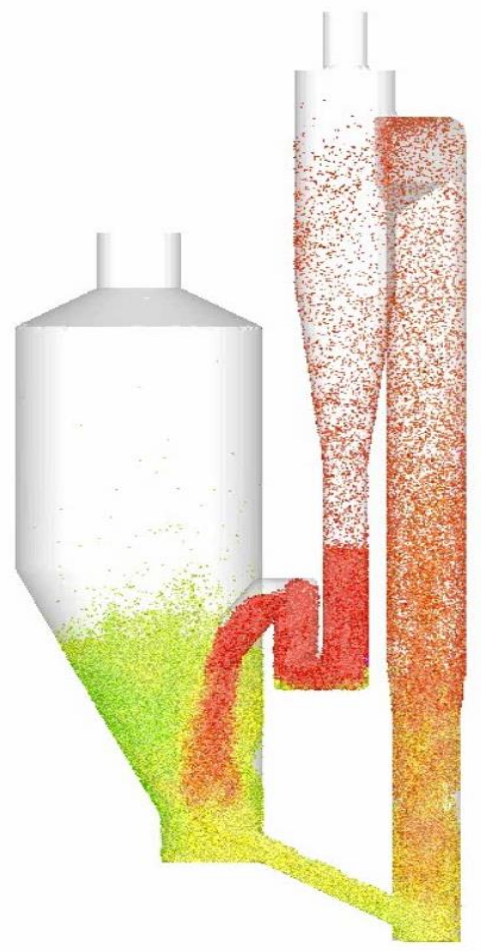
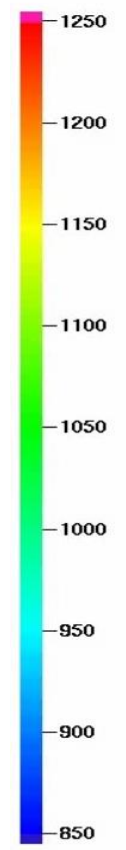




Gasifier

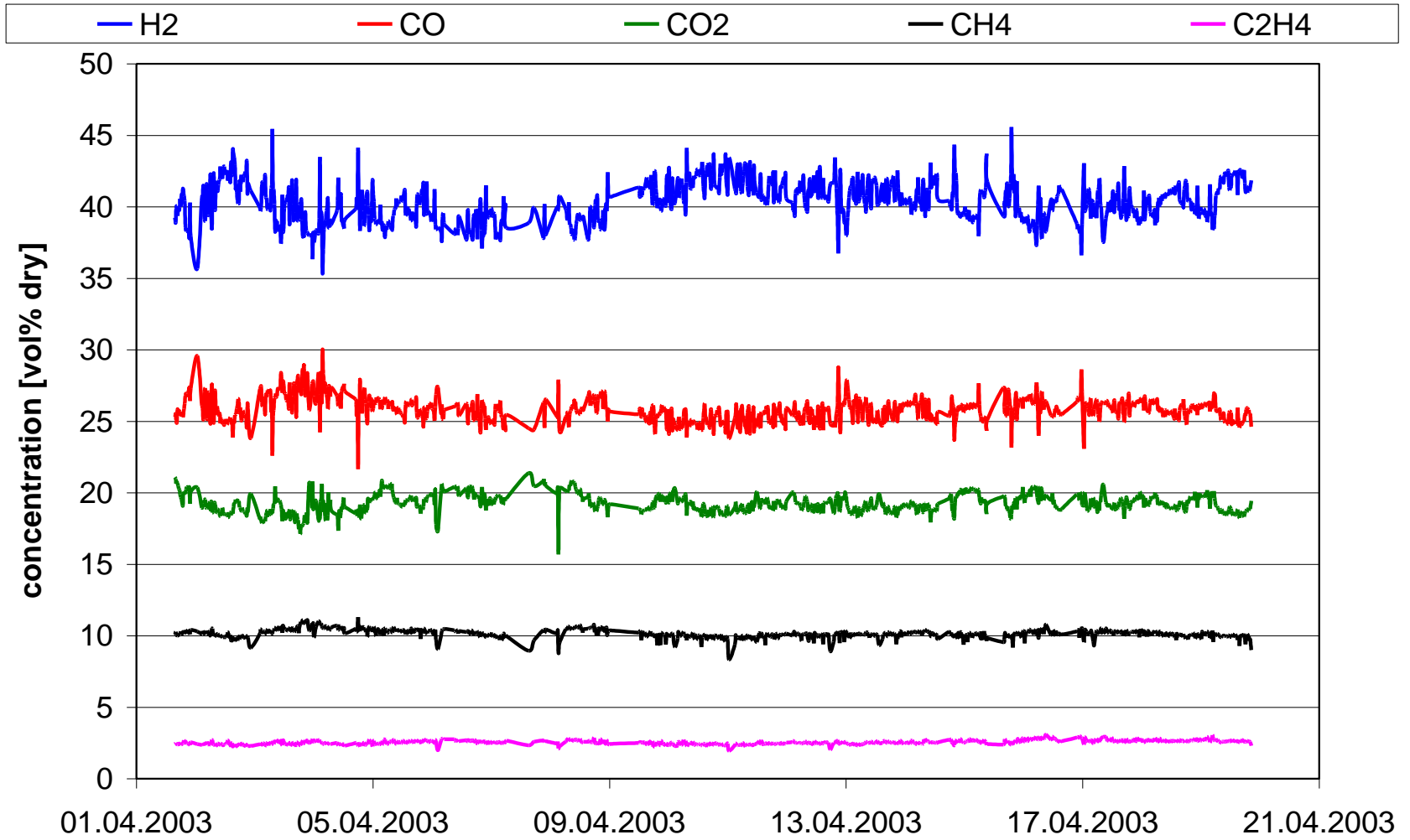
1.0000006e+02

Particles Temperat





Gas Composition



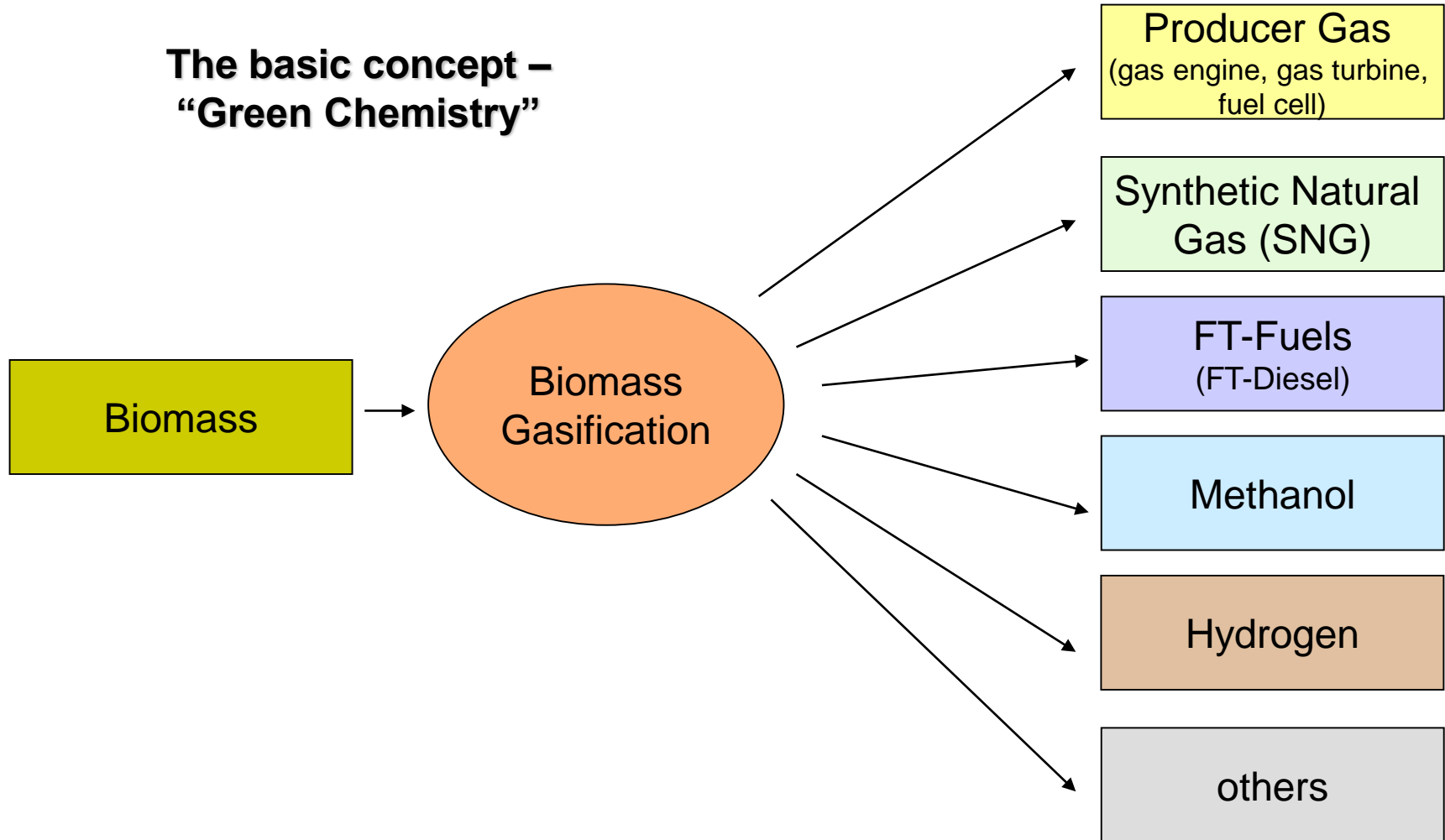


CHP Plant Güssing





**The basic concept –
“Green Chemistry”**





Bio-SNG: 1 MW Demonstration Plant





GoBiGas Gasifier







Idea to industrial implementation

2005

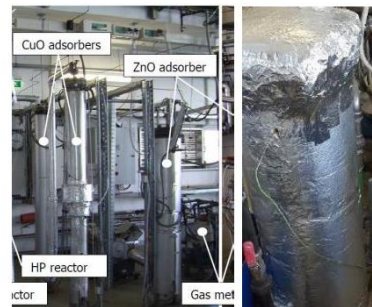
FT lab installation erected
Based on slurry reactor technology
First FT diesel produced



Slurry reactor

2009

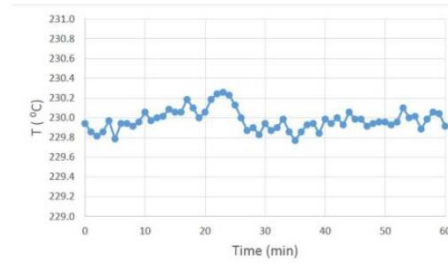
Gas cleaning section & product separation improved
Upgrading of FT waxes to FT diesel & kerosene



Gas cleaning improved

2014

Power-to-liquid concept "Winddiesel" demonstrated
Several thousand operating hours



T profile load change

2016/18

Planning, erection & startup of barrel per day pilot plant
Investigation started "FT to Chemicals"



Upscaling via CFM



BEST FT Pilot PLANT





SGC XTLH1 Pilotanlage



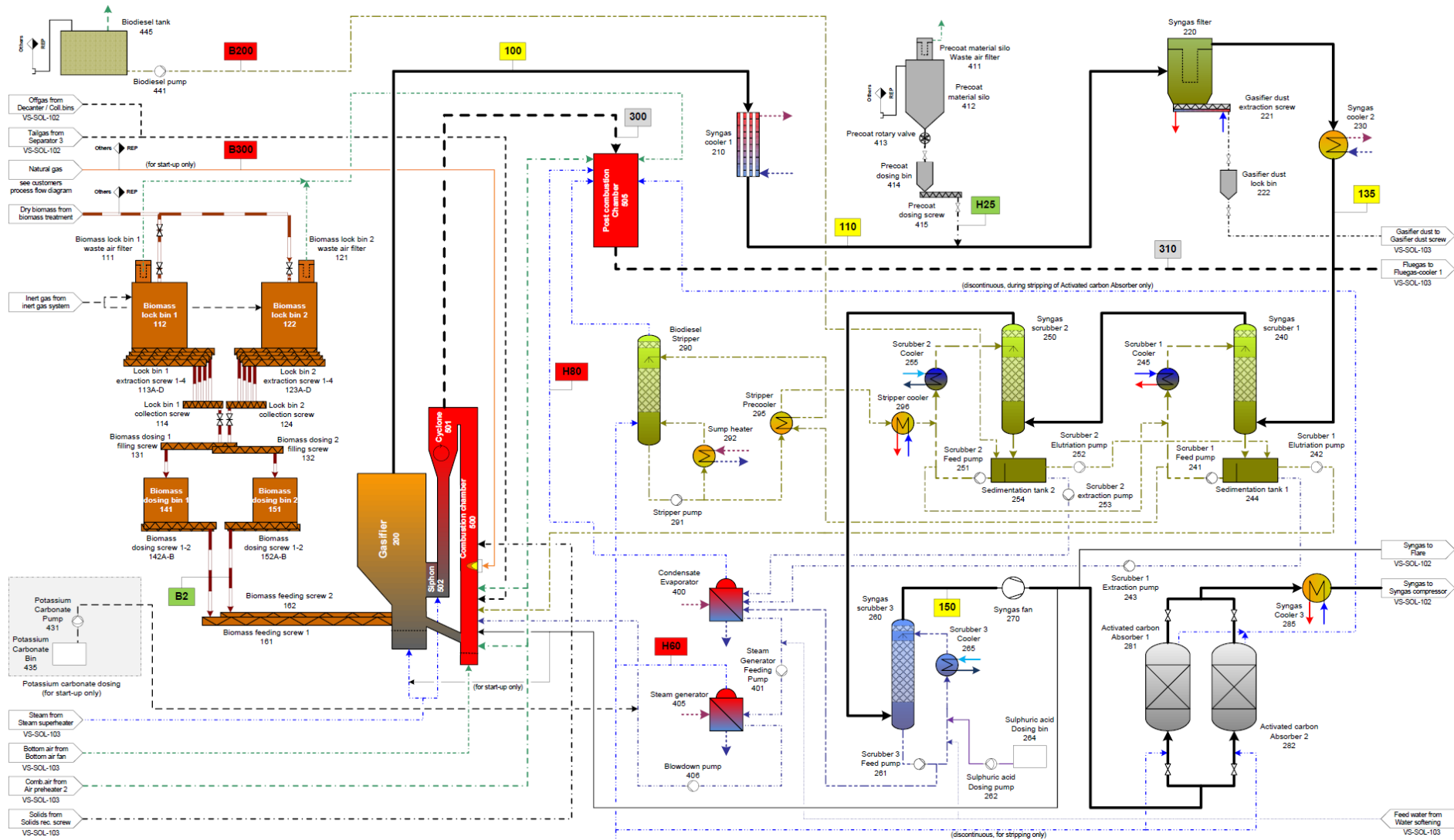


BEST FT Plant

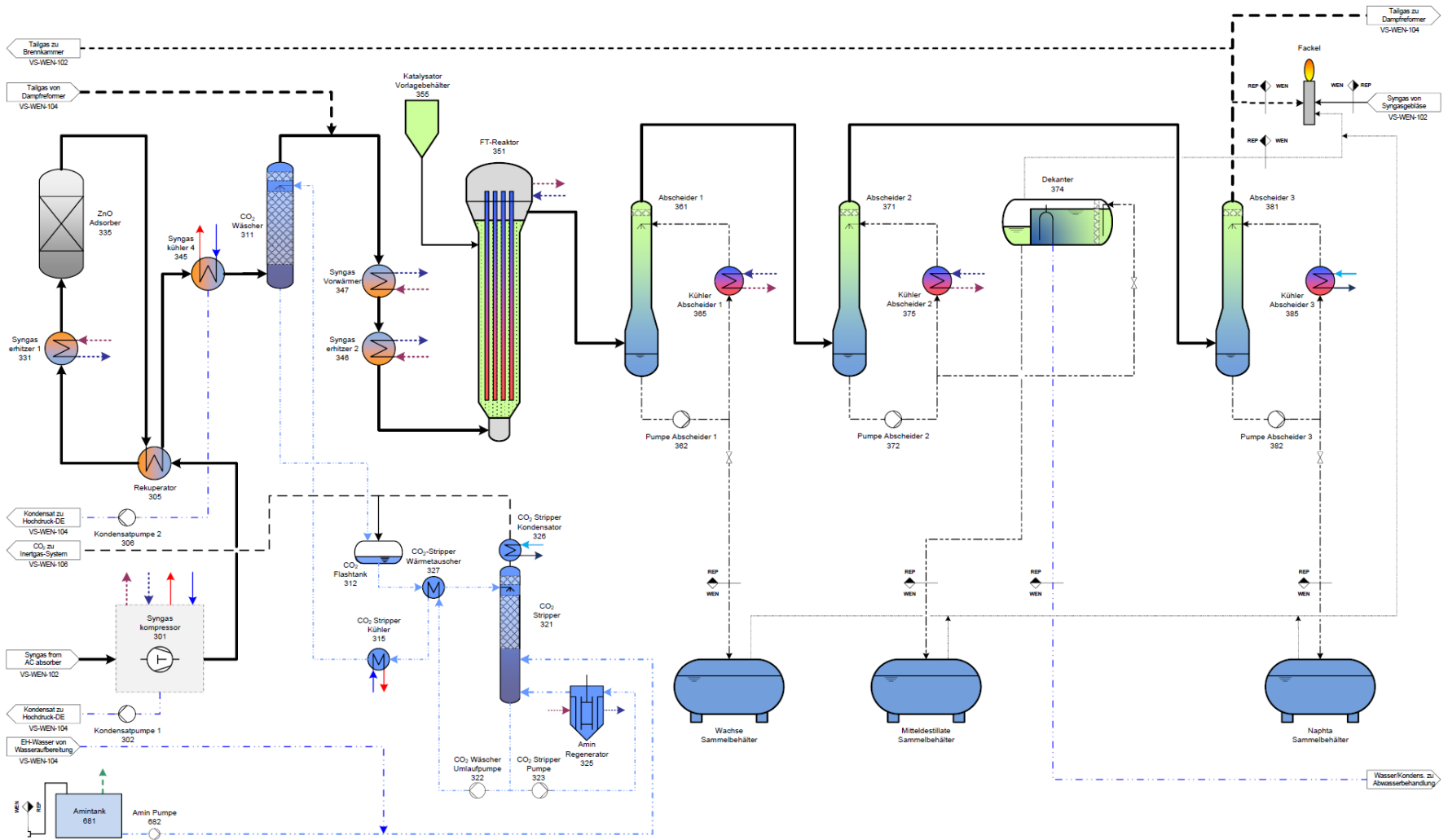




PFD Gasification

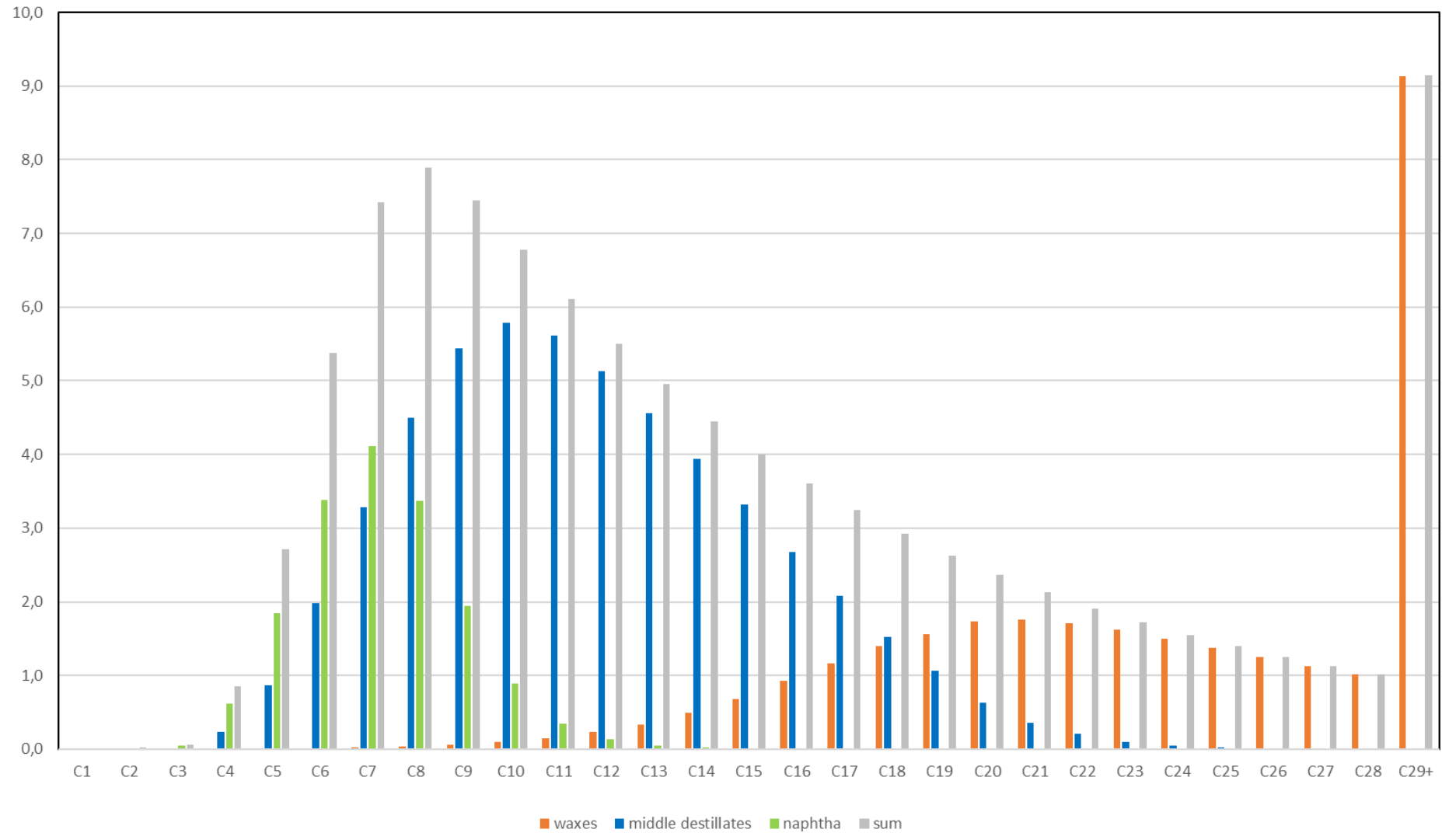


PFD Fischer-Tropsch Synthesis





Fischer Tropsch products - rough composition [%m]
(related to sum of products)



Streams 75 MW

	mass flow	energy flow
feedstock		
cashew nut shells	13 000 kg/h	75 kW
products		
FT waxes	799 kg/h	9,9 kW
FT middle distillate	1 242 kg/h	15,2 kW
FT naphtha	661 kg/h	8,0 kW
total FT	2 702 kg/h	33,1 kW



Energy for the Future

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