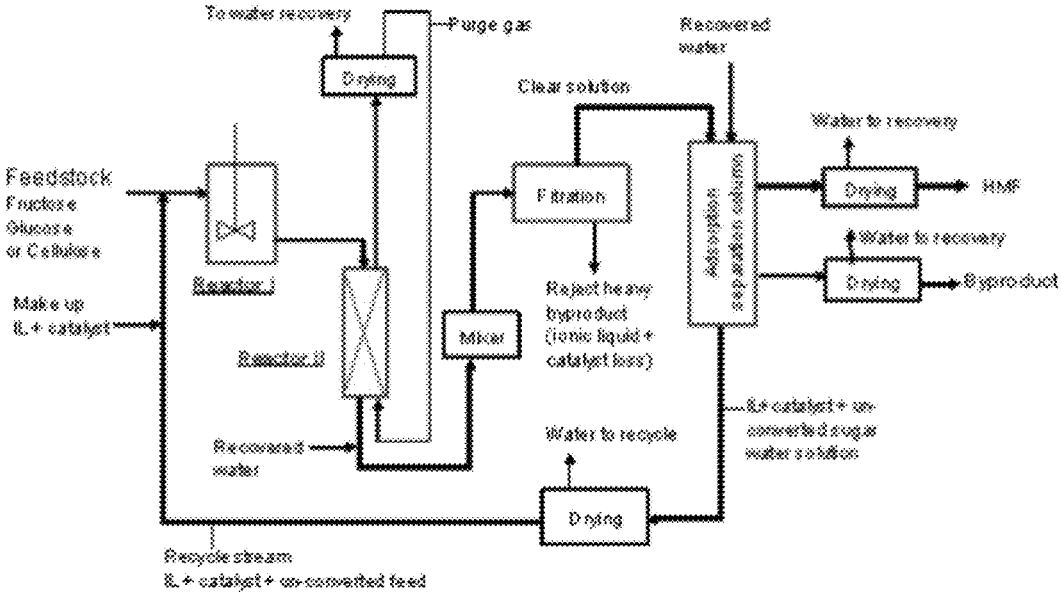
Fig. 1


To water recovery
Purge gas
Drying
Recovered water
Clear solution
Water to recovery
Feedstock
Fructose
Glucose
or Cellulose
Filtration
Drying
HMF
Water to recovery
Reactor I
Reactor II
Mixer
Reject heavy byproduct (ionic liquid + catalyst loss)
Drying
Byproduct
Make up IL + catalyst
IL+ catalyst + un-converted sugar water solution
Recovered water
Water to recycle
Drying
Recycle stream
IL + catalyst + un-converted feed