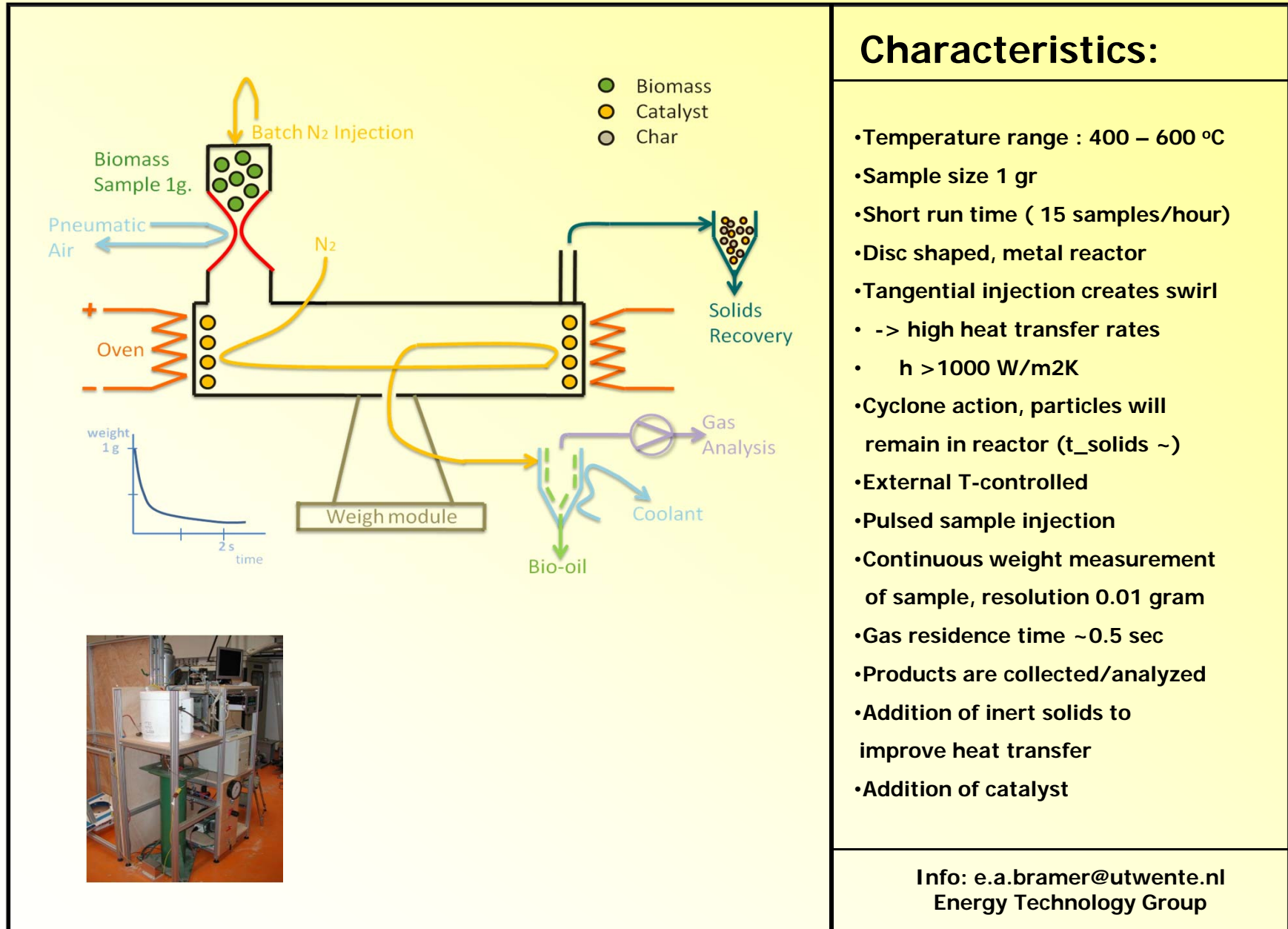


Cyclonic Thermogravimetric Analyzer



Characteristics:

- Temperature range : 400 – 600 °C
- Sample size 1 gr
- Short run time (15 samples/hour)
- Disc shaped, metal reactor
- Tangential injection creates swirl
- -> high heat transfer rates
- $h > 1000 \text{ W/m}^2\text{K}$
- Cyclone action, particles will remain in reactor ($t_{\text{solids}} \sim$)
- External T-controlled
- Pulsed sample injection
- Continuous weight measurement of sample, resolution 0.01 gram
- Gas residence time $\sim 0.5 \text{ sec}$
- Products are collected/analyzed
- Addition of inert solids to improve heat transfer
- Addition of catalyst

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