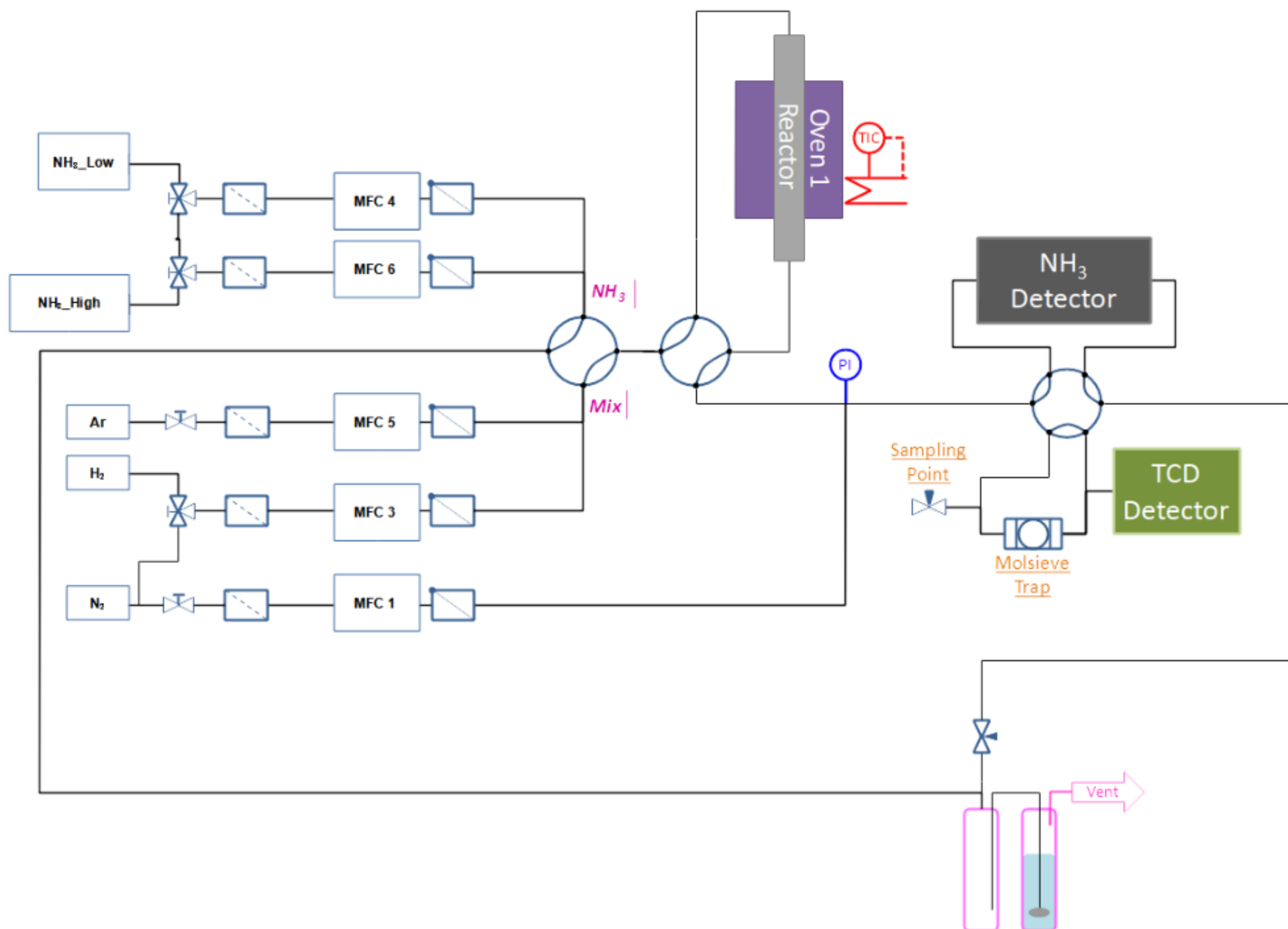


Haber Report Of Ammonia Decomposition On S84

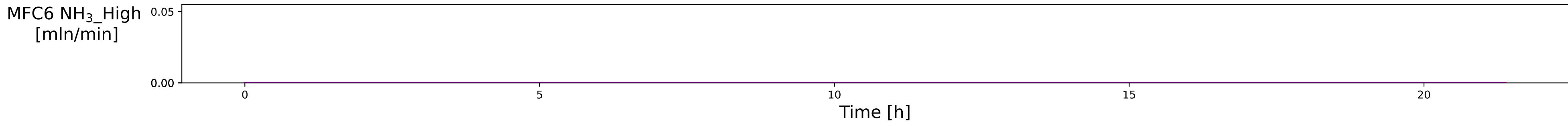
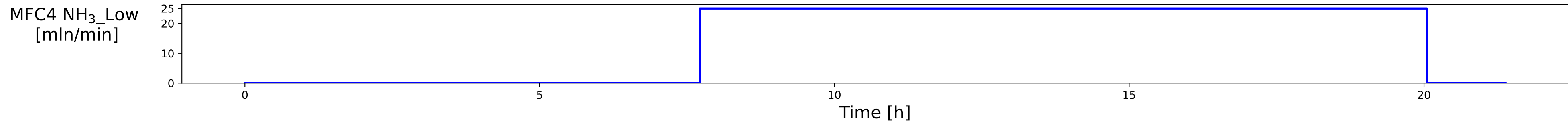
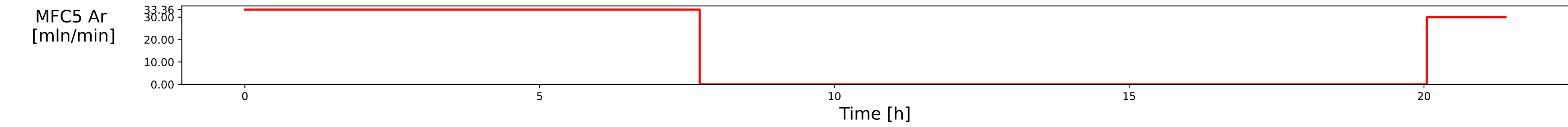
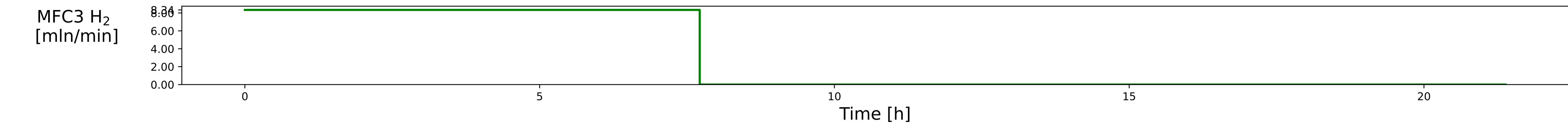
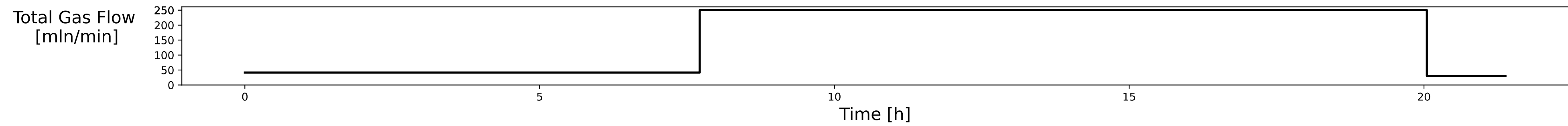
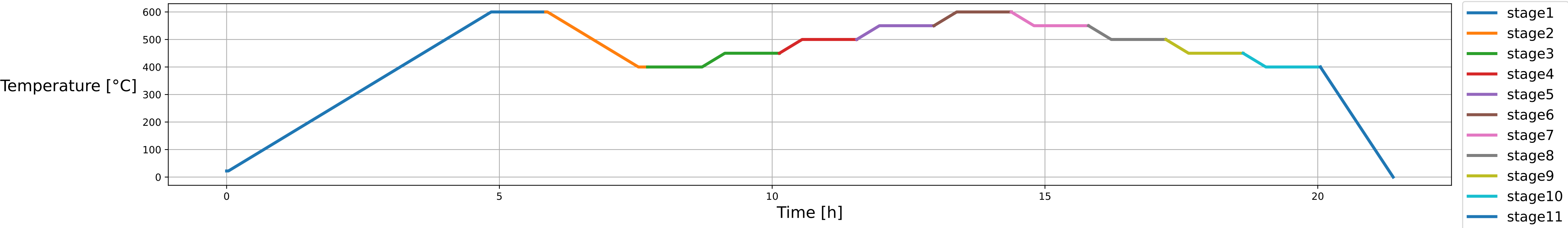
User: B. Alkan

Layout design by: Abdulrhman Moshantaf

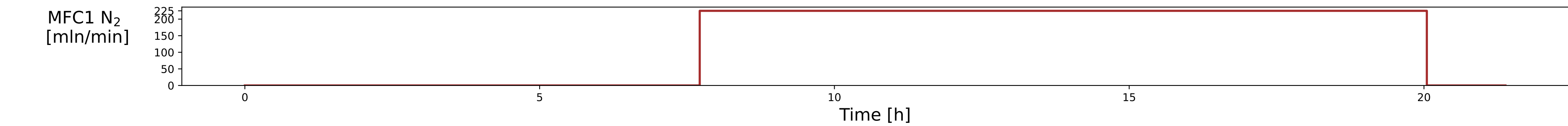
Flowchart Of The Haber Reactor



Method used for the experiment : NH3 decomp. 28102022_Nr3



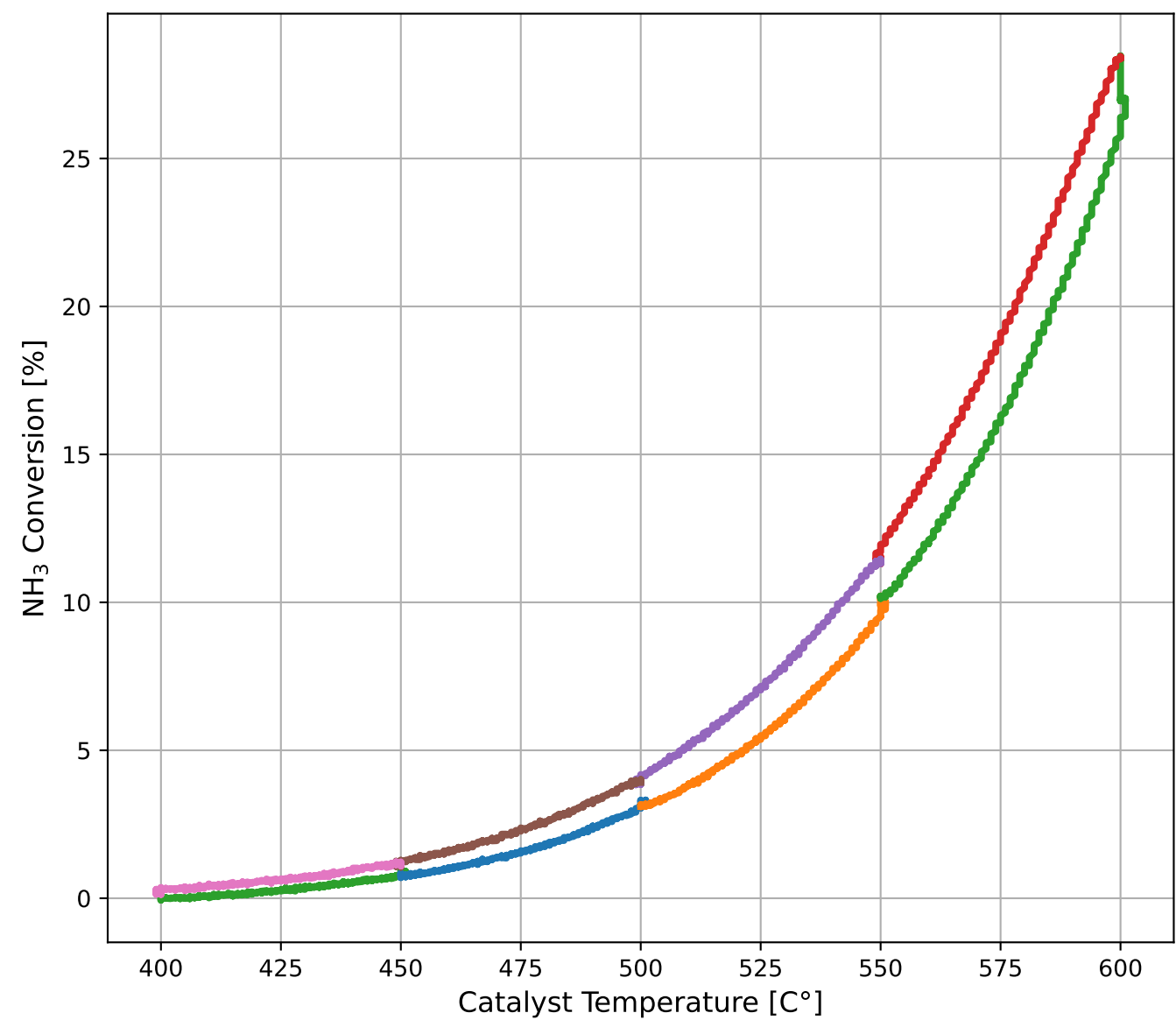
Dilution For Analytic After Reactor



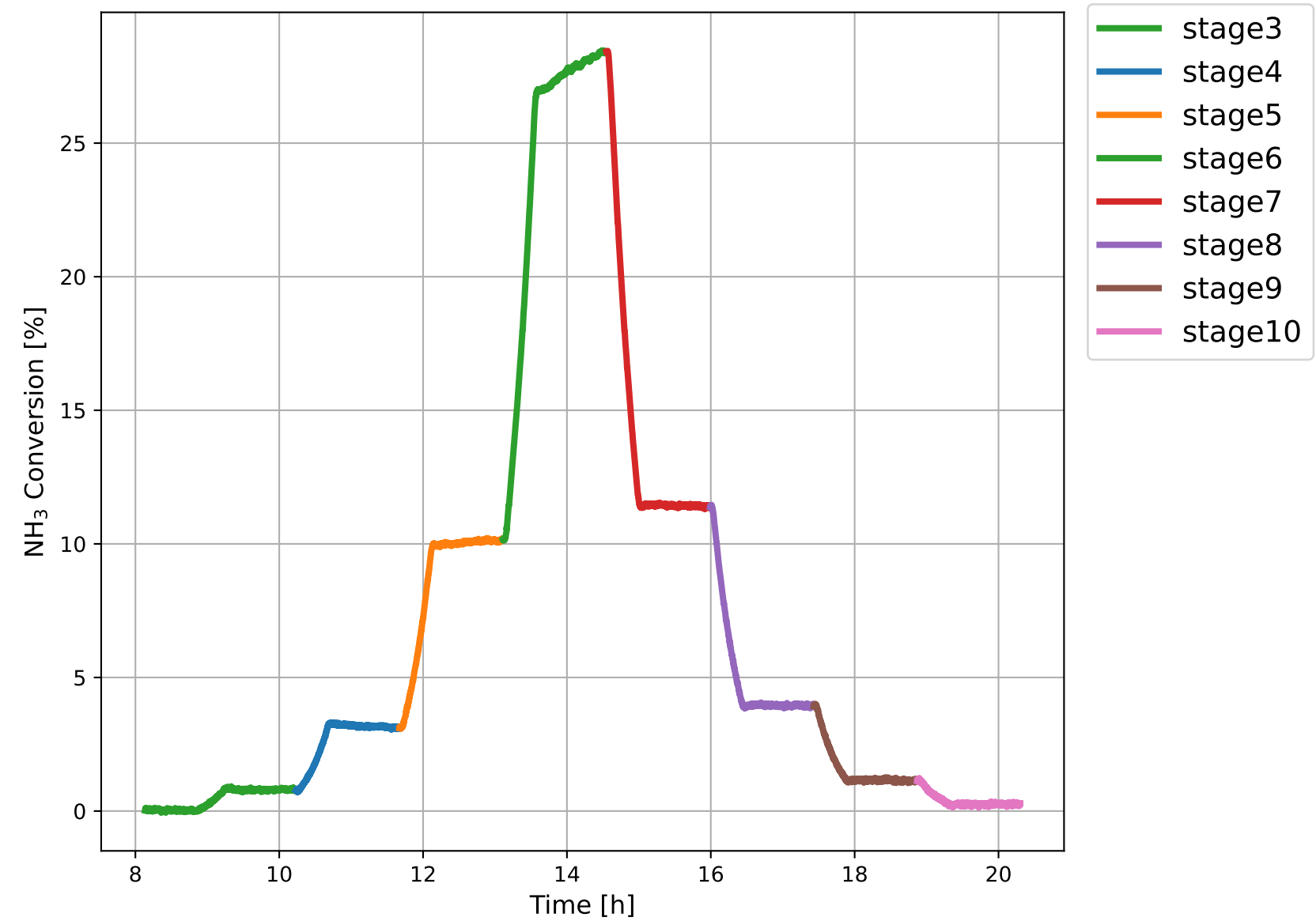
Method Data Table

Stage	Equalibration Time [min]	Setpoint [deg C]	Ramprate [deg C/min]	Dwell Time [min]	Total Gas Flow [mln/min]	NH ₃ _High [%]	NH ₃ _Low [%]	N ₂ [%]	Ar [%]	H ₂ [%]
1	2.0	600.0	2.0	60.0	41.7	0.0	0.0	0.0	80.0	20.0
2	2.0	400.0	2.0	10.0	41.7	0.0	0.0	0.0	80.0	20.0
3	60.0	450.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
4	0.0	500.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
5	0.0	550.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
6	0.0	600.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
7	0.0	550.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
8	0.0	500.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
9	0.0	450.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
10	0.0	400.0	2.0	60.0	250.0	0.0	10.0	90.0	0.0	0.0
11	0.0	30.0	5.0	0.0	30.0	0.0	0.0	0.0	100.0	0.0

Ammonia Conversion over Temperature

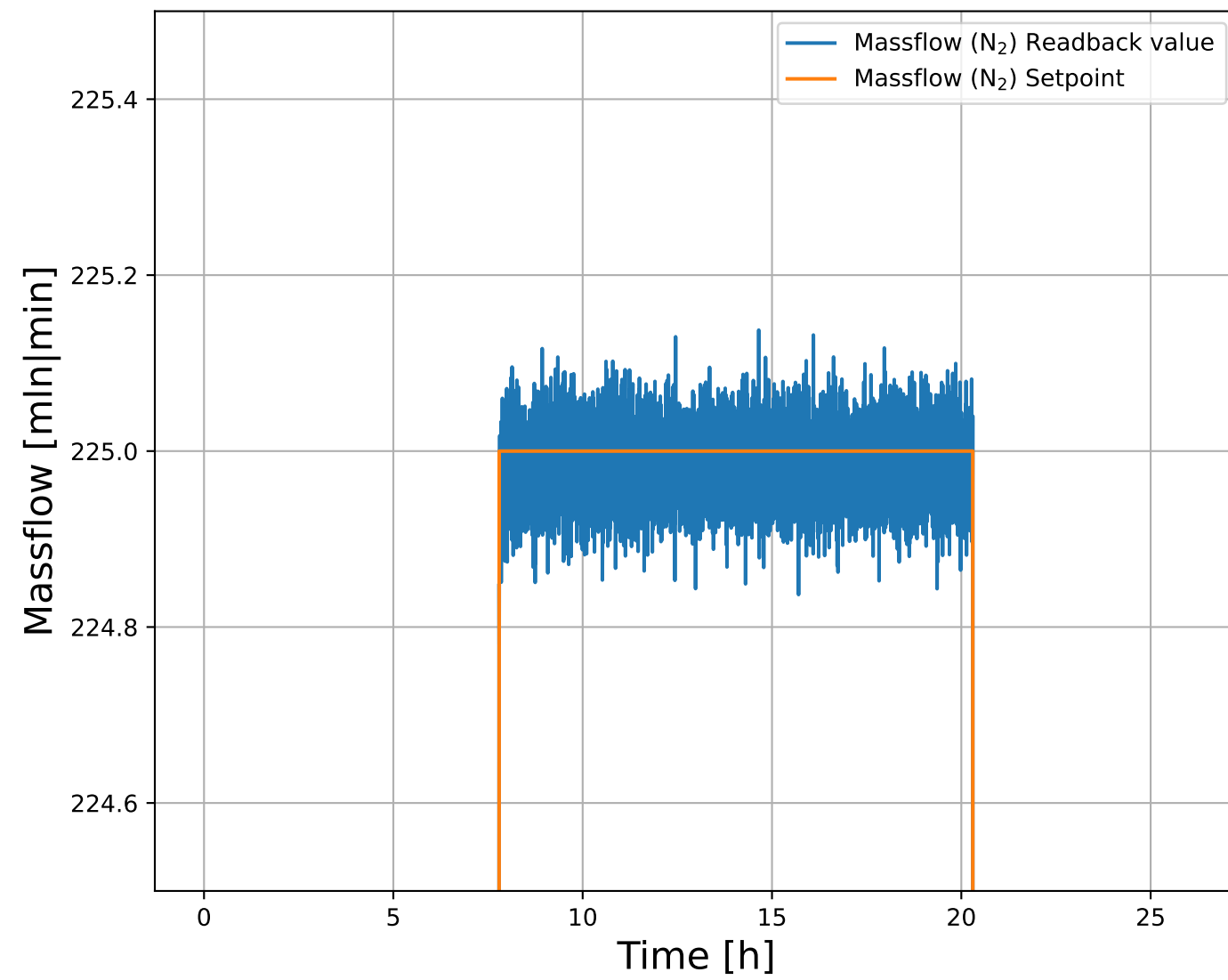


Ammonia Conversion over Time

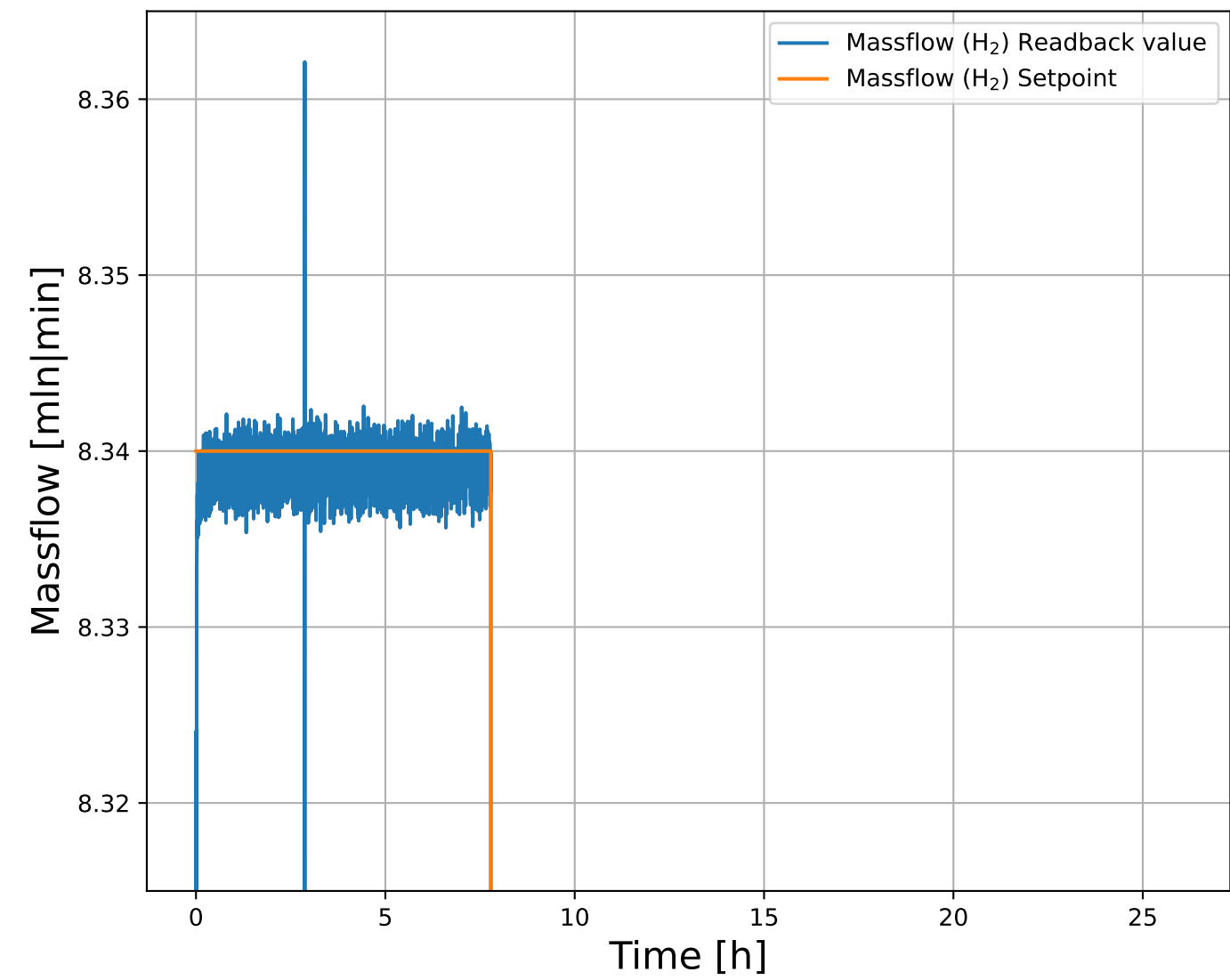


T_Oven	T_Catalyst	NH ₃ conversion [%]
T398, initial	T400, initial	4.06
T398, last	T400, last	0.22
T600, highest	T601, highest	28.47

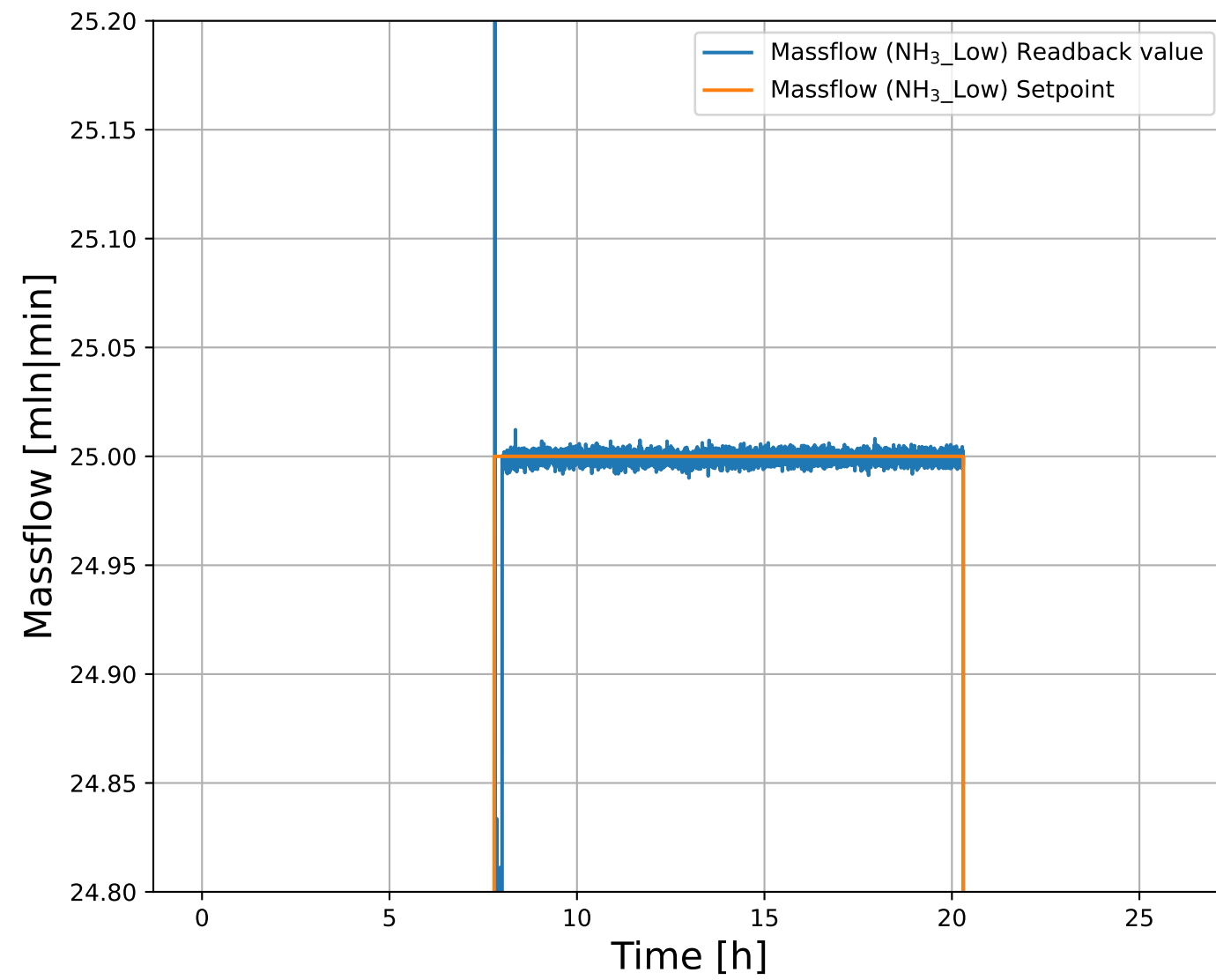
Massflow (N₂) Setpoint and Readback value over Time



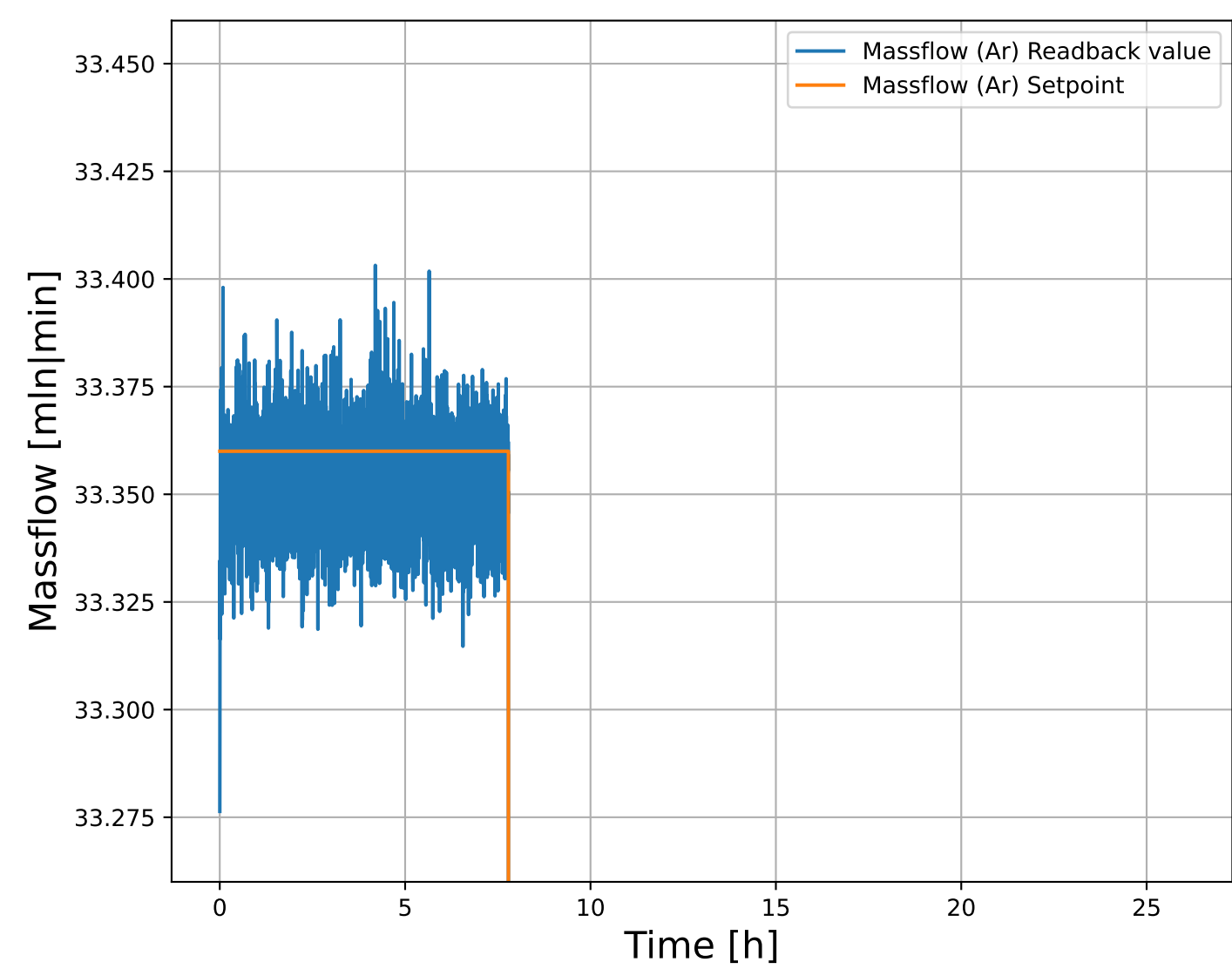
Massflow (H₂) Setpoint and Readback value over Time



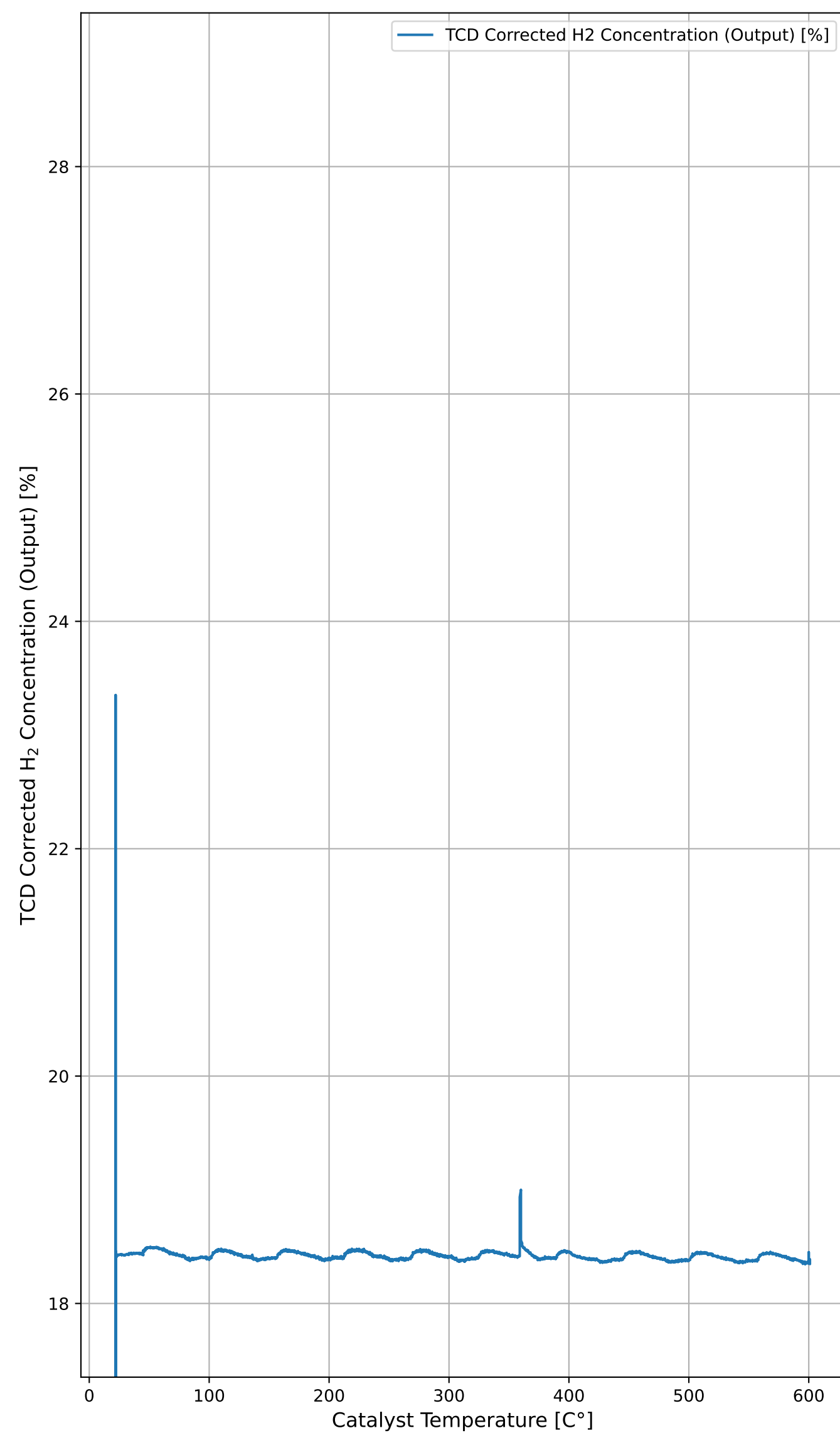
Massflow (NH₃_Low) Setpoint and Readback value over Time



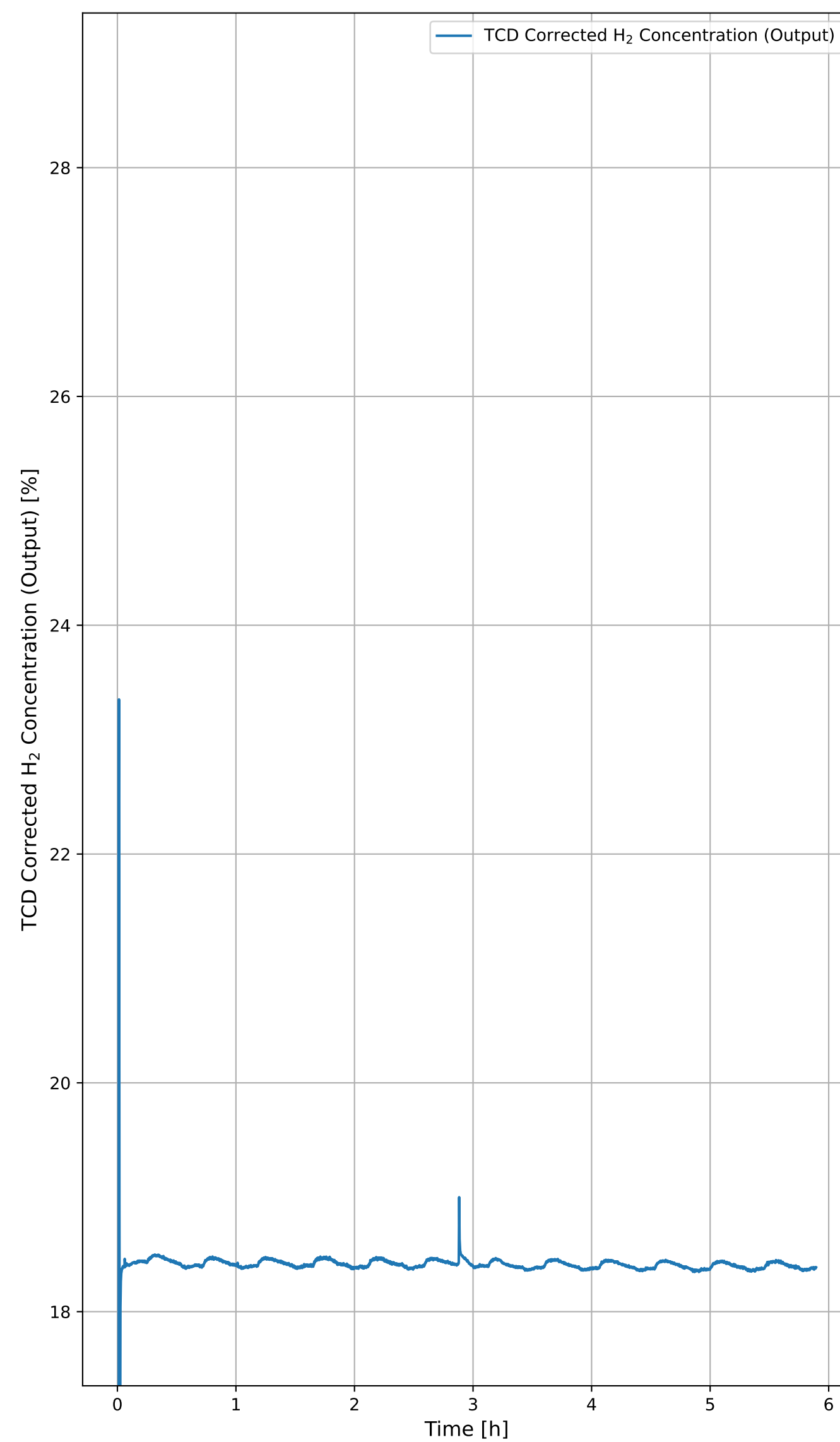
Massflow (Ar) Setpoint and Readback value over Time



TCD Corrected H₂ Concentration (Output) over Catalyst Temperature



TCD Corrected H₂ Concentration (Output) over Time



Catalyst Temperature and Oven Temperature over Time

