

Progress Update



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Latest Update Pilot Arneco (Arnhem, NL)



Performed experiments Pilot Arneco (Arnhem, NL)

run#	Variable of interest	Operational Current density (A/m ²)	Current (A)	Load ratio	PSU duty cycle (%)	Overall Feed rate (L/h)	Loading rate (kg N/d)
1	Current density	50	2.42	1.5	1	30.4	1.31
2		100	4.84	1.5	1	60.8	2.62
3		200	9.68	1.5	1	121.7	5.25
4	Load ratio	100	4.84	1	1	91.2	3.94
5		100	4.84	1.5	1	60.8	2.62
6		100	4.84	2.5	1	36.5	1.57
7	Donnan mode	100	4.84	1.5	0.25	15.2	0.65
8		100	4.84	1.5	0.5	30.4	1.31
9	Validation	100	2.42	1.5	0.25	7.6	0.32
*	Extra (DD)	100	4.84	2.5	0.5	30.4	1.31

Selected results Pilot Arneco (Arnhem, NL)

Current density (A/m ²)	Removal (%)	Product concentration (NH ₄) ₂ SO ₄ (g/L)	Total Ammonia recovered (g _N /day)
50	0.71	205.5	508.4
100	0.56	182.2	1053.3
200	0.27	246.2	1241.2

Next to do Pilot Arneco (Arnhem, NL)

At the pilot:

- Select long-term run conditions
- Optimize CIP for selected conditions
- Long term stability operation and analysis