Electronic Supplementary Material (ESI) for Environmental Science: Nano.

Supplementary information for

Efficient Ammonia Recovery from Wastewater using Electrically Conducting Gas Stripping Membranes

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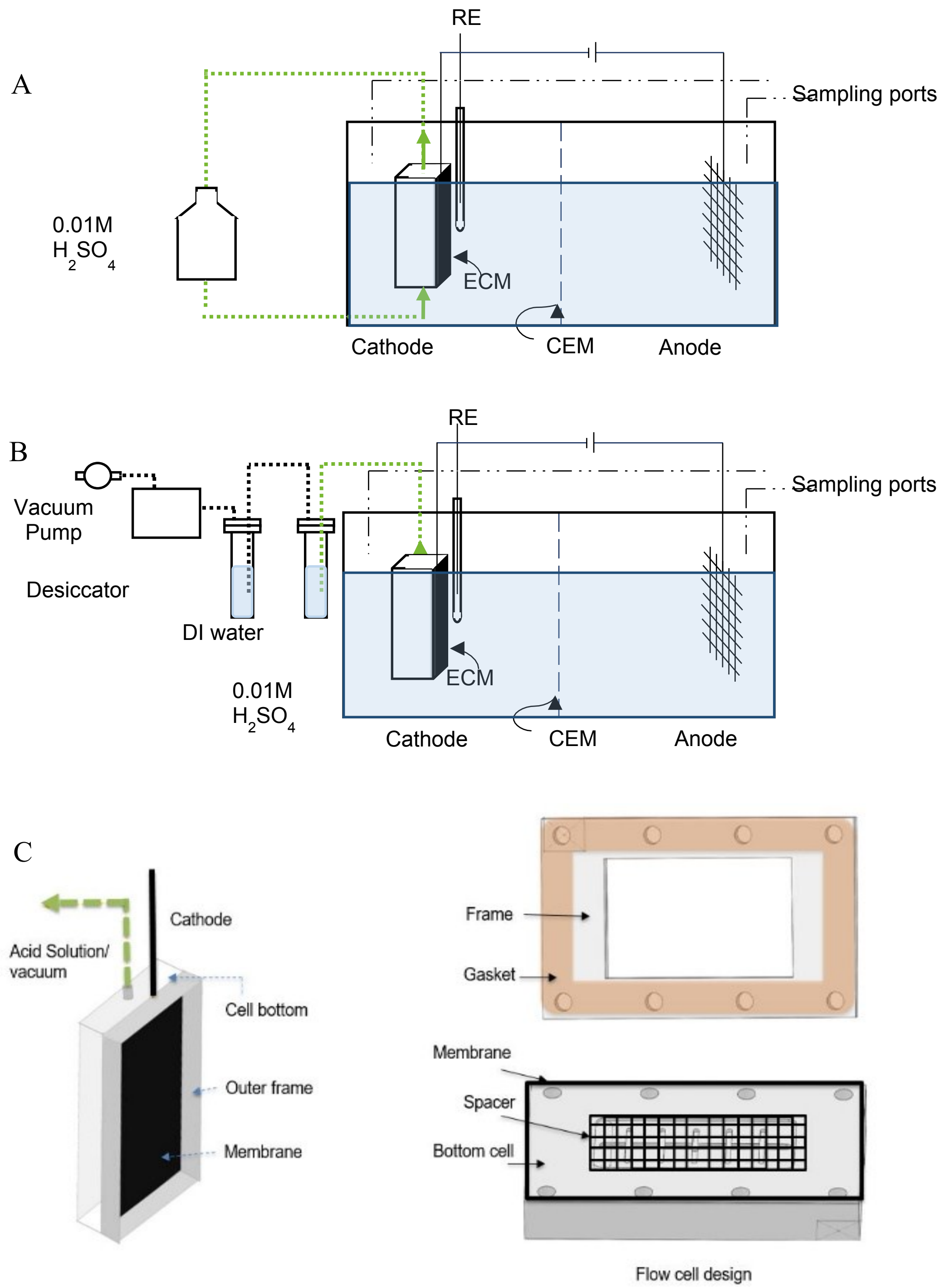

Figure S1: A) Schematic of experimental setup used for ammonia recovery by circulating acid solution (0.01M H_2SO_4) on the back-side of the Electrically Conducting Membrane (ECM). B) Schematic of experimental setup used for ammonia recovery by applying vacuum on the back-side of the ECM. The vacuum line was first passed through an acid scrubber to convert NH_3 back to NH_4^+. This was connected to a water trap to capture any escaping ammonia and/or acid vapour. The water traps are connected to the vacuum pump through a desiccator to prevent possible water vapour in the air stream. The two chambers are separated by a Cation Exchange Membrane (CEM) C) Flow cell housing for recovering ammonia from solution.

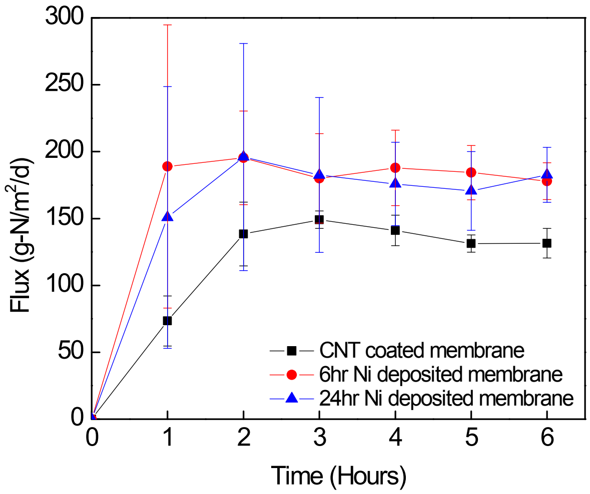

Figure S2: Variation of flux of NH_3-N with time. The flux, normalized to the ECM surface area, decreases as the current decreases and ECM fouls over time.