Supplementary information for

**Efficient Ammonia Recovery from Wastewater using Electrically Conducting Gas Stripping Membranes**

Arpita Iddya\(^a\), Dianxun Hou \(^b\), Chia Miang Khor\(^a\), Zhiyong Ren\(^c\), Jefferson Tester\(^d\), Roy Posmanik\(^e\), Amit Gross\(^f\) and David Jassby \(^*a\)

\(^a\) Department of Civil and Environmental Engineering, University of California, Los Angeles, California 90095, United States

\(^b\) Department of Civil, Environmental and Architectural Engineering, University of Colorado Boulder, Boulder, Colorado 80303, United States

\(^c\) Department of Civil and Environmental Engineering, Princeton University, Princeton, New Jersey 08544, United States

\(^d\) Department of Chemical and Biomolecular Engineering and Energy Systems Institute, Cornell University, Ithaca, New York 14853, United States

\(^e\) Agricultural Research Organization - Volcani Center, Newe Ya’ar Research Center, Ramat Yishai, 30095, Israel

\(^f\) Zuckerberg Institute for Water Research, Ben-Gurion University of Negev, Sede Boqer Campus, 84990, Israel

\(^*\) Corresponding author

jassby@ucla.edu
**Figure S1**: A) Schematic of experimental setup used for ammonia recovery by circulating acid solution (0.01M H$_2$SO$_4$) 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.