

Assessment of data capture conditions effect on reverse electrodialysis process using a DC electronic load

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Support Materials

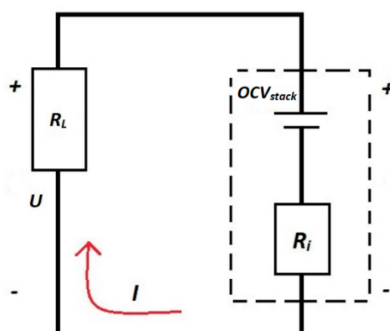


Figure S1. Equivalent circuit of RED process.

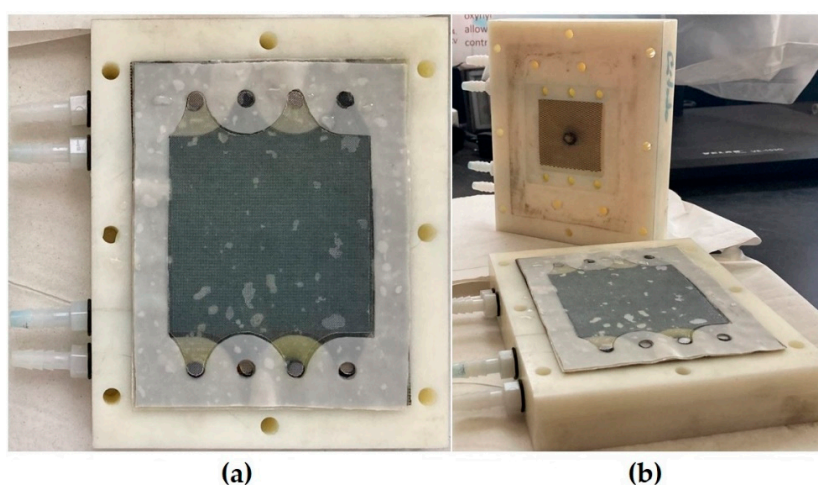


Figure S2. RED prototype (RU1) (a) Endplate and stack design, (b) Prototype before assembly.

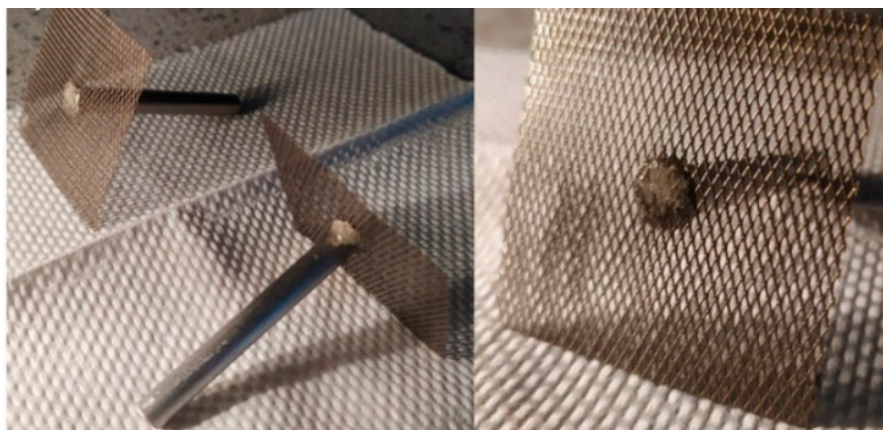


Figure S3. In-house built Pt/Ti mesh electrodes used for RED experiments.

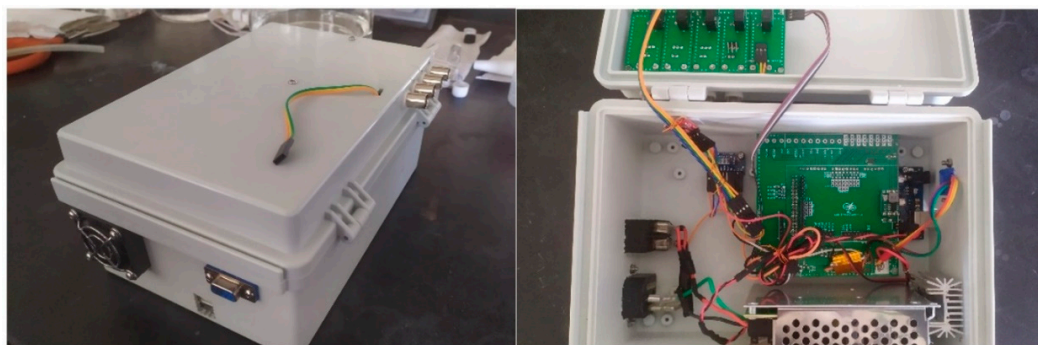


Figure S4. DC electronic load module (DCELM).

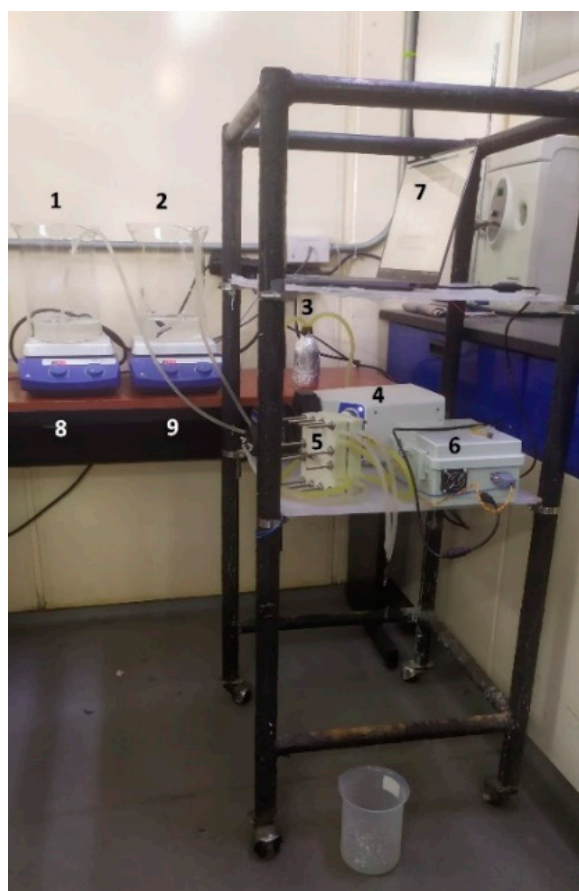


Figure S5. Lab scale experimental setup of the RED test bench. Components of test bench:

1. Low concentration (LC) solution container, 2. High concentration (HC) solution container, 3. Electrode rinse solution (ERS) container, 4. Double head peristaltic pump, 5. RED prototype (RU1), 6. DC electronic load module (DCELM), 7. MATLAB® interface, 8. Hot plate for LC solution and 9. Hot plate for HC solution.

Table S1. Properties of IEM used for RED experiments

IEM properties	Fuji Type 10	
	AEM	CEM
Thickness dry (μm)	125	135
Permselectivity (%)	95	99
Resistance ($\Omega \text{ cm}^2$)	1.7	2.0
Reinforcement	Polyolefin	

Table S2. Parameters of the MOSFET IRFZ44N.

Parameter	Value
$V_{\text{gs}} (\text{on})$	10.0 V
$V_{\text{gs}} (\text{th})$	2.1 V
$I_{\text{D}} (\text{on}) \text{ max.}$	25 A