

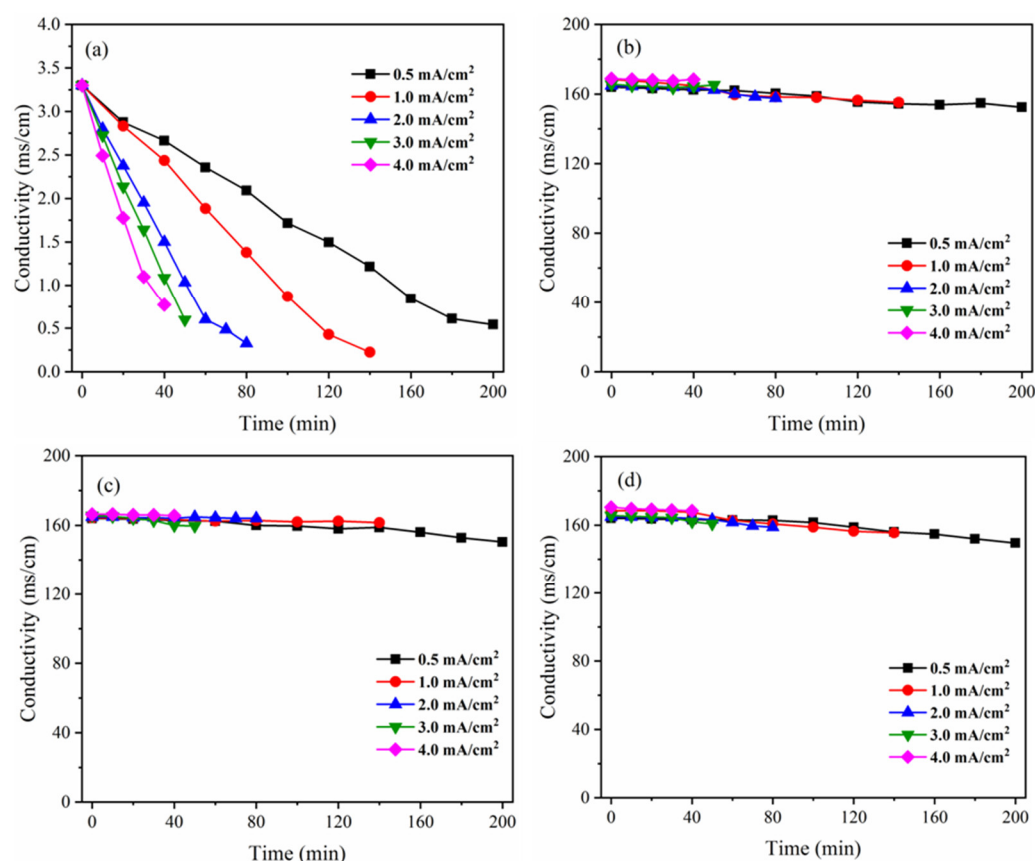
# Separation and Concentration of Nitrogen and Phosphorus in a Bipolar Membrane Electrodialysis System

## S1 Details of membranes

**Table S1.** Characteristics of membranes.

Parameters	CEM	AEM	BPM
Thickness ( $\mu\text{m}$ )	50.8	420	170–260
Conductivity (S/cm)	0.083	0.083	-
Exchange capacity (mol/kg)	0.95–1.01	2.2	-
Moisture content (%)	$5 \pm 3.0$	42	-
Rupture strength (MPa)	-	0.6	0.4–0.7
Selective transmission coefficient (%)	-	90	-
Water decomposition voltage (V)	-	-	0.9–1.7
Water decomposition efficiency (%)	-	-	>98

## S2 Changes of pH in different compartment



**Figure S1.** Changes of solution conductivity in (a) wastewater compartment, (b) ammonia compartment, (c) phosphate compartment and (d) nitric acid compartment under different current density.