

Supporting information for publication

Microbial capacitive desalination for integrated organic matter and salt removal
and energy production from unconventional natural gas produced water

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Table S1. Characteristics of the Produced Water used in this study

Produced Water Characteristics	
Analysis	Conc.
TDS (mg/L)	15870 ± 290
pH	7.8 ± 0.2
Conductivity (mS/cm)	25 ± 0.15
Alkalinity (mg/L as CaCO ₃)	700 ± 8
Ba ²⁺ (mg/L)	44.4 ± 18.7
Ca ²⁺ (mg/L)	236.6 ± 64.2
K ⁺ (mg/L)	49.5 ± 1.9
Mg ²⁺ (mg/L)	30.0 ± 2.3
Na ⁺ (mg/L)	5992.0 ± 82.2
Si ⁴⁺ (mg/L)	30.1 ± 0.5
Sr ²⁺ (mg/L)	27.4 ± 4.2
Cl ⁻ (mg/L)	9290.2 ± 241.1
Br ⁻ (mg/L)	67.1 ± 2.9
PO ₄ ³⁻ (mg/L)	54.4 ± 5.43
DOC (mg/L)	233.5 ± 4.3

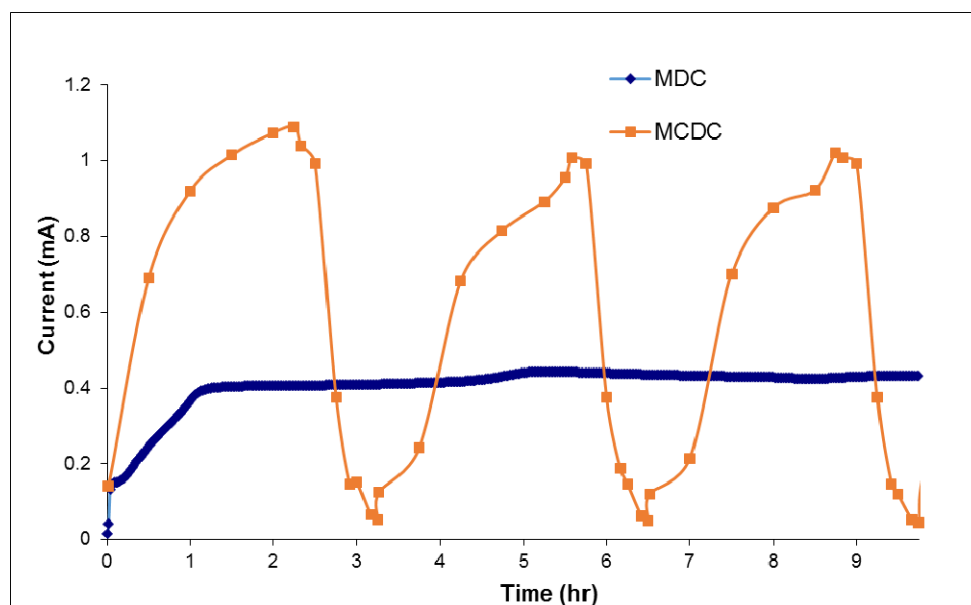


Figure S1: Time course current generation profiles of the MDC and MCDC.

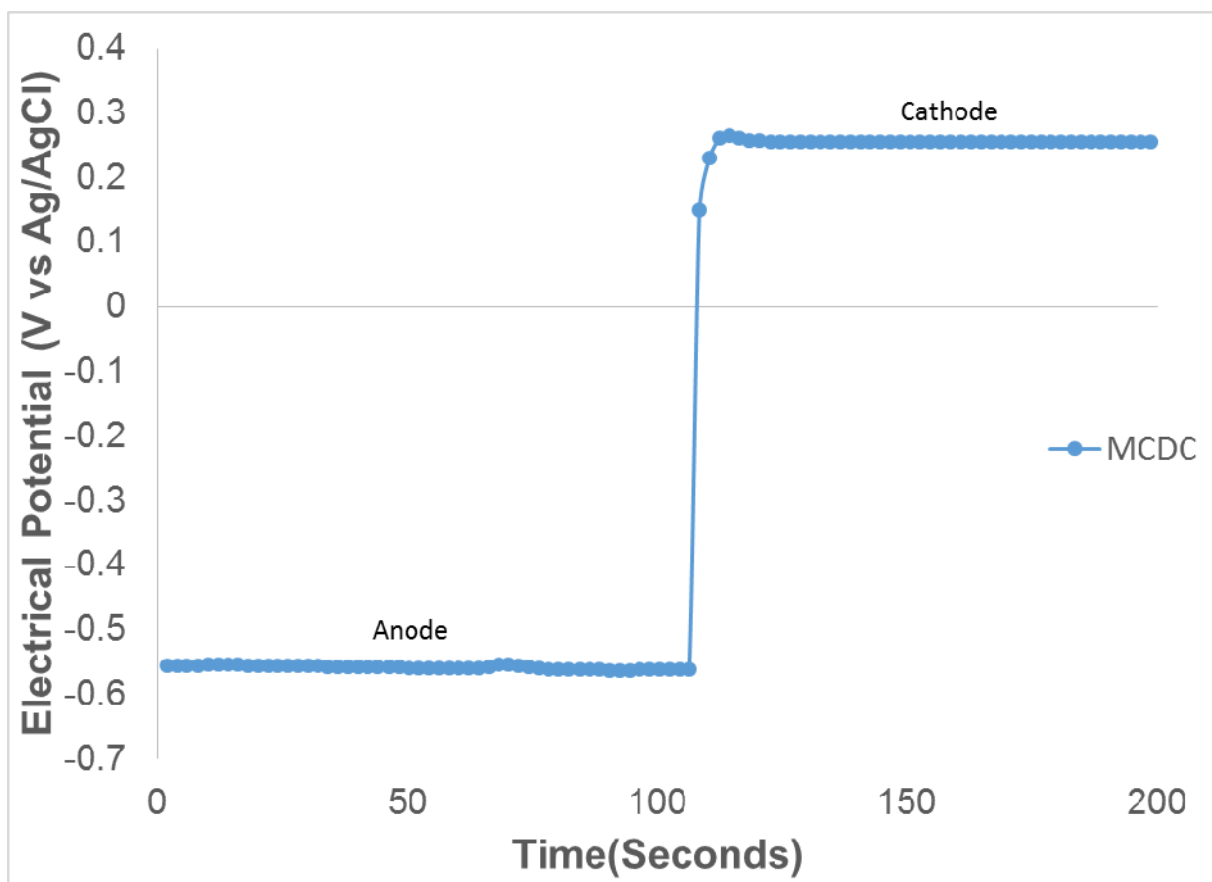


Figure S2. Open circuit potentials of the MCDC system.