

Fig. S1. Variation of I (amp) with time during diluted sea water desalination containing TDS (a) 2000 and (b) 5000 mg/L respectively with CEM-3 at 1.5-2 volt/cell pair applied potential.

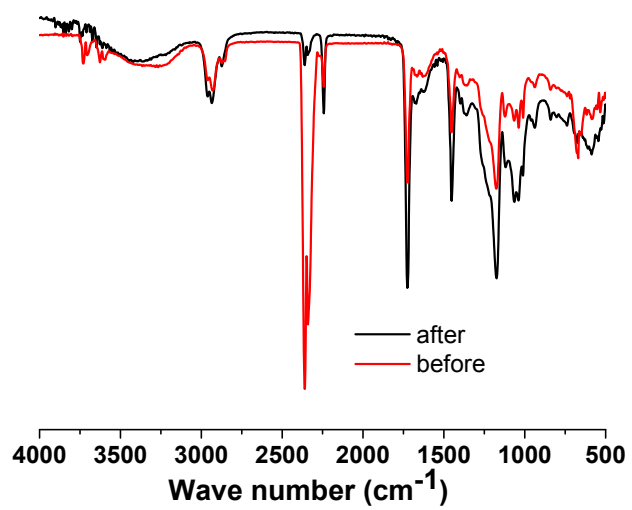


Figure S2. ATR-IR spectrum of CEM-3 before and after exposure with Fentons reagent at 70 °C for 9 h.

Table S1. Values of W, CE(%) and J during diluted sea water desalination containing TDS 2000 mg/L using CEM-3 at 2 volt/cell pair applied potential and at different pH

| pH | W (KW.h/Kg) | CE (%) | J (Kg/m ² s) |
|----|----------------|-----------|----------------------------|
| 5 | 1.25 | 73.2 | 0.000149 |
| 8 | 1.06 | 86.0 | 0.000164 |
| 10 | 1.16 | 79.2 | 0.000157 |
| 12 | 1.24 | 74.2 | 0.000122 |