

Supporting Information for

**Enhanced photocatalytic activity for the degradation of rhodamine B
by integrating salinity gradient power into a photocatalytic fuel cell**

Mingrui Sui,^{‡a,b} Yue Dong^{‡a,b} and Hong You^{*a,b}

^aState Key Laboratory of Urban Water Resource and Environment, Harbin Institute of Technology. No 73 Huanghe Road, Nangang District, Harbin 150090, China

^bSchool of Municipal and Environmental Engineering, Harbin Institute of Technology. No 73 Huanghe Road, Nangang District, Harbin 150090, China

*Corresponding author. E-mail: youhonghit@sina.com; Phone: (+86)451-86283118;
Fax: (+86)451-86283118

[‡] Both authors contributed equally.

Table S1. Basic parameters of the xenon lamp used in this study

Mode	GY-10A, Tuopu Co. Ltd., China
Bulb power (W)	150
Starting voltage (V)	>10000
Working voltage (V)	18-20
Working current (A)	6-8
Wave length range (nm)	190-2800
Parallel beam diameter (mm)	30-60
Luminous Flux (lm)	3100
Light irradiance (mW/cm ²)	100
Inherent light ripple	<3%

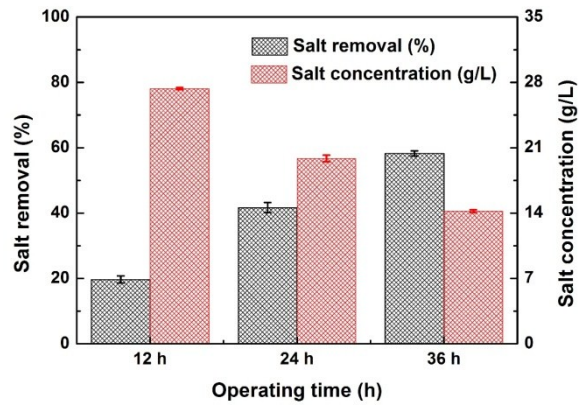


Fig. S1 Desalination performance of the PFC system at HRTs 12 h, 24 h and 36 h for the middle chamber

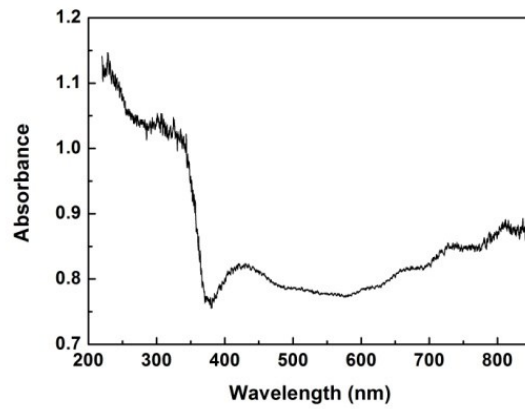


Fig. S2 UV-visible spectra of TiO₂ photoanode.

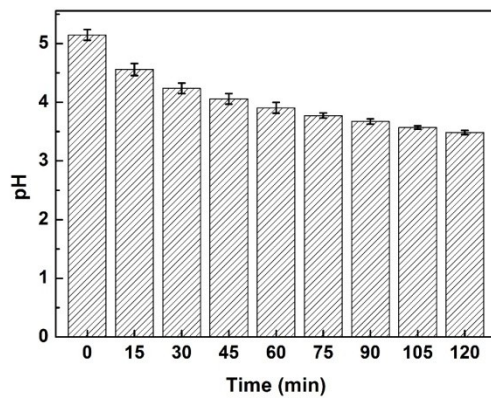


Fig. S3 Change of pH of anode solution during PFC operation.