

## Supplementary information

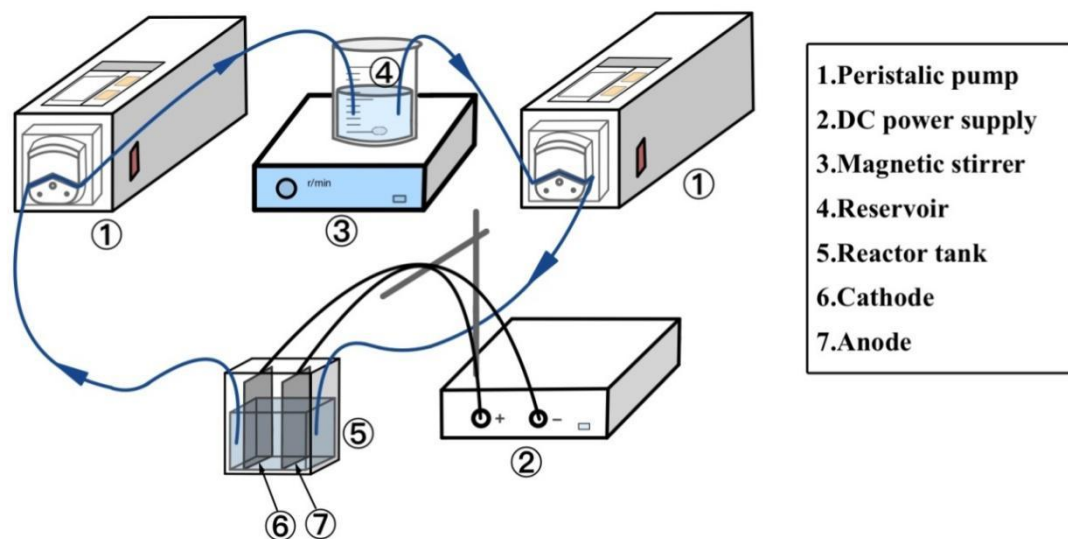


Fig. S1 The experimental diagram.

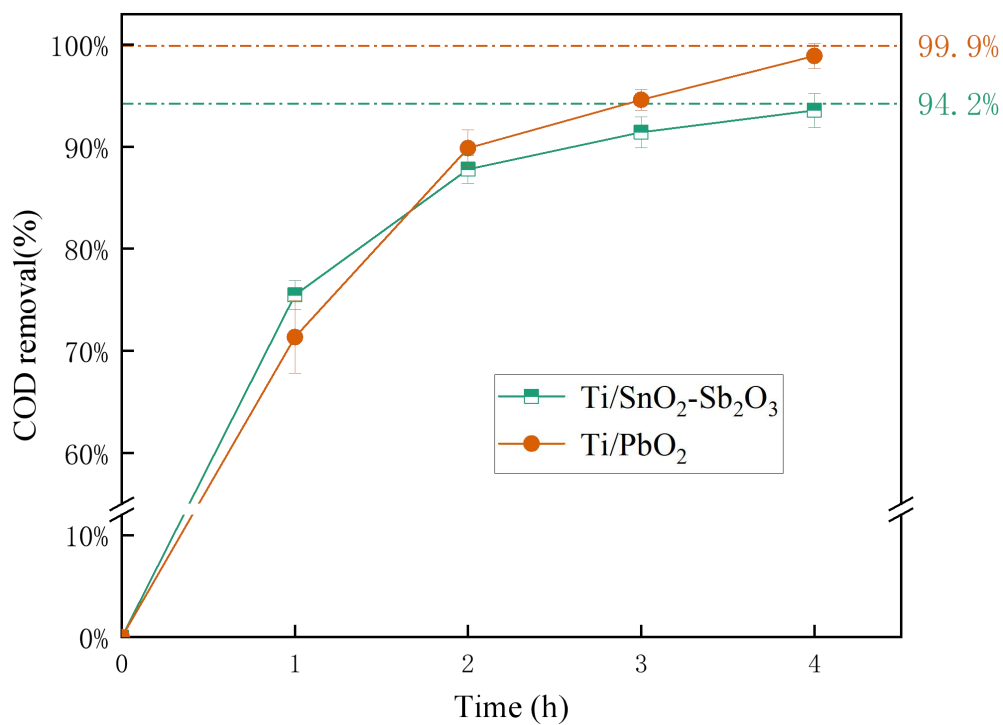


Fig. S2 COD elimination rate (%) of NaCl of Ti/SnO<sub>2</sub>-Sb<sub>2</sub>O<sub>3</sub> (7.3 g/L NaCl, 34 mA/cm<sup>2</sup>) and Ti/PbO<sub>2</sub> anodes (6.0 g/L NaCl, 38 mA/cm<sup>2</sup>).

**Table S1** Nature of waste leachate.

Water quality indicators	Raw landfill leachate	After UASB	After EO
COD (mg/L)	1800–2200	1000–1200	20–200
TOC (mg/L)	1200–1500	200–400	130–330
TN (mg/L)	900–1500	150–200	30–70
Cl <sup>-</sup> (mg/L)	4200–4500	2500–2700	800–1400
NH <sub>4</sub> <sup>+</sup> -N (mg/L)	800–1400	90–130	–
NO <sub>3</sub> <sup>-</sup> -N (mg/L)	3100–3240	–	50–60
PO <sub>4</sub> <sup>3-</sup> (mg/L)	35–40	30–33	30–33
SO <sub>4</sub> <sup>2-</sup> (mg/L)	500–520	480–500	480–500
Color (Dilution ratio)	4000x	2500x	< 5x

**Table S2** Experimental operating conditions.

Anode	Cathode	Current density (mA/cm <sup>2</sup> )	NaCl concentration (g/L)
Ti/SnO <sub>2</sub> -Sb <sub>2</sub> O <sub>3</sub>	Ni	30, 50, 65	0
	Ni	50	0, 3, 10
	Ni, Pt and steel	50	0
Ti/PbO <sub>2</sub>	Ni	30, 50, 65	0
	Ni	50	0, 3, 10
	Ni, Pt and steel	50	0

**Table S3** Code and level of independent variables.

Factors	Variable	Factor level		
		-1	0	1
A	Current density (mA/cm <sup>2</sup> )	30	50	65
B	Time (h)	1	3	4
C	Nacl concentration (g/L)	0	3	10

**Table S4** Analysis of variance when the anode is Ti/SnO<sub>2</sub>-Sb<sub>2</sub>O<sub>3</sub>.

Source	Sum of Squares	df	Mean Square	F-value	p-value	Significance
Model	6057.94	9	673.10	36.49	< 0.0001	significant
A-Current density	618.84	1	618.84	33.55	0.0007	
B-Time	2286.49	1	2286.49	123.96	< 0.0001	
C-NaCl concentration	1044.75	1	1044.75	56.64	0.0001	
AB	13.00	1	13.00	0.7049	0.4289	
AC	12.69	1	12.69	0.6877	0.4343	
BC	296.67	1	296.67	16.08	0.0051	
A <sup>2</sup>	1529.37	1	1529.37	82.91	< 0.0001	
B <sup>2</sup>	246.85	1	246.85	13.38	0.0081	
C <sup>2</sup>	803.81	1	803.81	43.58	0.0003	
Residual	129.12	7	18.45			
Lack of Fit	80.32	3	26.77	2.19	0.2313	not significant
Pure Error	48.80	4	12.20			
Cor Total	6187.06	16				

Notes: R<sup>2</sup>=0.9791 , R<sub>adj</sub><sup>2</sup>=0.9523 , Adequate Precision=22.0402

**Table S5** Analysis of variance when the anode is Ti/PbO<sub>2</sub>.

Source	Sum of Squares	df	Mean Square	F-value	p-value	Significance
Model	3453.04	9	383.67	78.48	< 0.0001	significant
A-Current density	596.31	1	596.31	121.98	< 0.0001	
B-Time	1106.48	1	1106.48	226.33	< 0.0001	
C-NaCl concentration	213.35	1	213.35	43.64	< 0.0001	
AB	257.66	1	257.66	52.71	< 0.0001	
AC	6.03	1	6.03	1.23	0.2928	
BC	21.25	1	21.25	4.35	0.0637	
A <sup>2</sup>	9.69	1	9.69	1.98	0.1894	
B <sup>2</sup>	29.03	1	29.03	5.94	0.0350	
C <sup>2</sup>	128.88	1	128.88	26.36	0.0004	
Residual	48.89	10	4.89			
Lack of Fit	20.81	3	6.94	1.73	0.2476	not significant
Pure Error	28.07	7	4.01			
Cor Total	3501.93	19				

Notes: R<sup>2</sup>=0.9860 , R<sub>adj</sub><sup>2</sup>=0.9735 , Adequate Precision=37.4999