

# Supporting Information

## In-Depth Study on the Effects of Impurity Ions in Saline Wastewater Electrolysis

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**Table S1.** Current efficiency data of all cases.

Group	Concentration of the ions (mol/L)						Current efficiency/ %
	Na <sup>+</sup>	K <sup>+</sup>	Ca <sup>2+</sup>	Mg <sup>2+</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	
Group 0 (Control group)	4	0	0	0	0	0	99.53
Group 1 (Effect of K <sup>+</sup> )	3.5	0.5					99.39
	3	1					97.08
	2.5	1.5	0	0	4	0	94.97
	2	2					99.59
	3.99		0.005				99.11
Group 2 (Effect of Ca <sup>2+</sup> )	3.98		0.01				98.52
	3.96	0	0.02	0	4	0	97.00
	3.9		0.05				97.92
	3.8		0.1				99.04
	3.95			0.01			99.96
Group 3 (Effect of Mg <sup>2+</sup> )	3.9			0.05			99.77
	3.8	0	0	0.1	4	0	98.58
	3.7			0.15			98.21
	3.6			0.2			96.97
					3.98	0.01	97.61
Group 4 (Effect of SO <sub>4</sub> <sup>2-</sup> )					3.9	0.05	96.34
	4	0	0	0	3.8	0.1	96.14
					3.6	0.2	99.56
					3	0.5	95.34