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Supplementary Information

Are Type 316L Stainless Steel Coin Cells Stable in Nonaqueous Carbonate Solutions Containing $NaPF_6$ or KPF_6 salt?

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Table S1. The chemical composition of type 316L stainless steel.

Element	Concentration of element (mass %)
C	**0.03**
Mn	**2**
P	**0.045**
S	**0.03**
Si	**0.75**
Cr	**16-18**
Ni	**10-14**
Mo	**2-3**
N	**0.1**
Fe	**Balance**

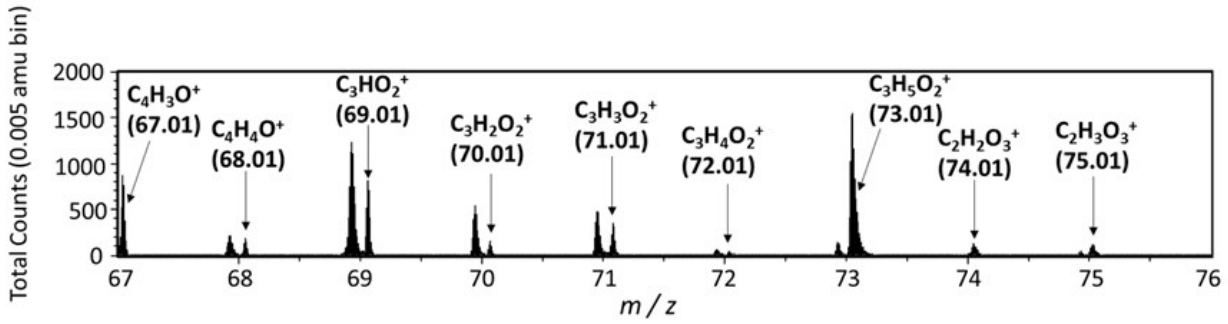

Fig. S1. ToF-SIMS spectra for the surface of type 316L SS transiently polarized at 4 V, and (e) 5 V versus Na^+/Na. For the index of fragments, CrO^+ (m = 67.93), CrF^+ (m = 70.93), FeO^+ (m = 71.92), and FeF^+ (m = 74.93) fragments are indicated in Figs. 3 and 6.

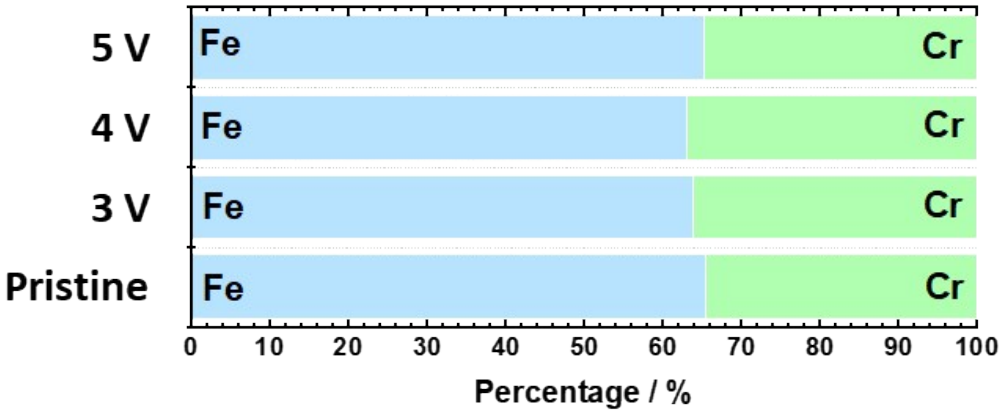

Fig. S2. Chromium/iron atomic ratio in oxide layer on type 316L SS polarized at each potential in Na solution based on XPS analysis.