

Supplementary Information for “The formation mechanism of 3D porous anodized aluminum oxide templates from an aluminum film with copper impurities”

To compare the anodization behavior of Al-0.22 at.% Cu films, a reference experiment was undertaken with a pure Al sample (99.9995 %, PVD). Figure S.1. shows the current density during anodization at 60 V in 0.3 M $\text{H}_2\text{C}_2\text{O}_4$. For the reference sample, no oscillations were observed during the anodization. Moreover, the steady-state current density is higher for pure Al than for the Al-Cu alloy, indicating the reduced anodization rate when Cu is present in the Al film.

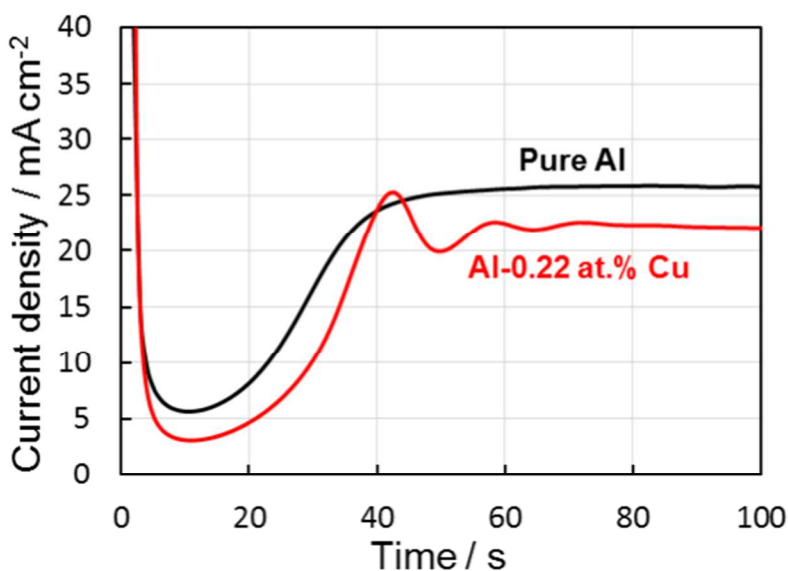


Figure S.I.1: Current density vs. time during anodization of a pure Al and a Al-0.22 at.% Cu film at 60 V in 0.3 M oxalic acid at 30 °C