Supplementary material

Influence of Alloying Elements on the Mechanical Properties of Anodized Aluminum and on the Adhesion of Copper Metallization

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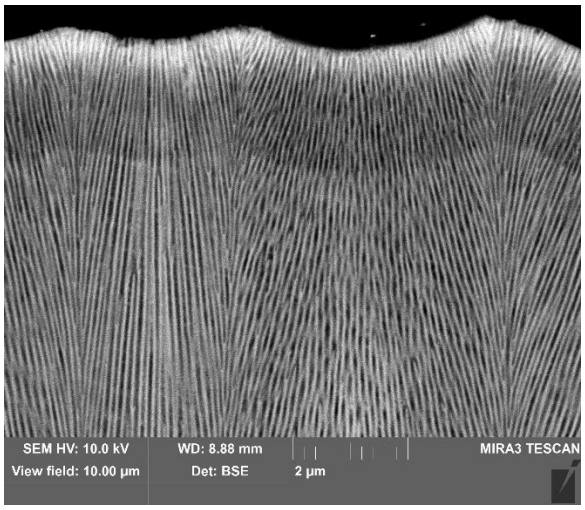
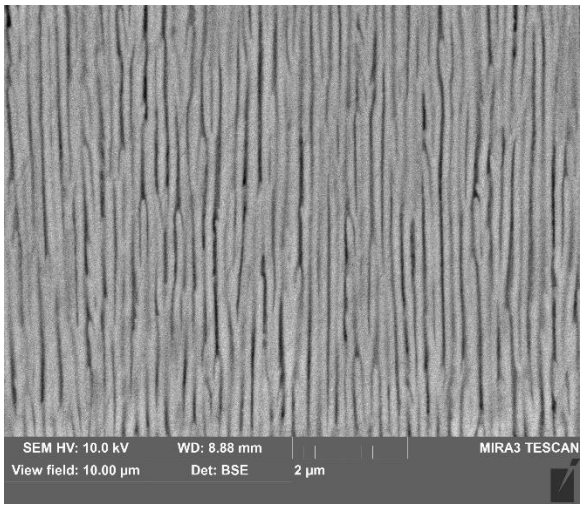
Table S1. The weight elemental composition of investigated aluminum alloys.

Alloy	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Ni
AA#1	99.3	0.107	0.380	0.147	0.004	0.006	0.002	0.008	0.01	0.003
AA#2	99.5	0.095	0.252	0.057	0.006	0.015	0.002	0.008	0.020	0.005
AA#3	99.5	0.041	0.279	0.008	0.005	0.005	0.003	0.006	0.134	0.008
AA#4	99.99	<0.003	<0.003	<0.002	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002


SEM HV: 10.0 kV
WD: 8.88 mm
MIRA3 TESCAN
View field: 10.00 µm
Det: BSE
2 µm

(a)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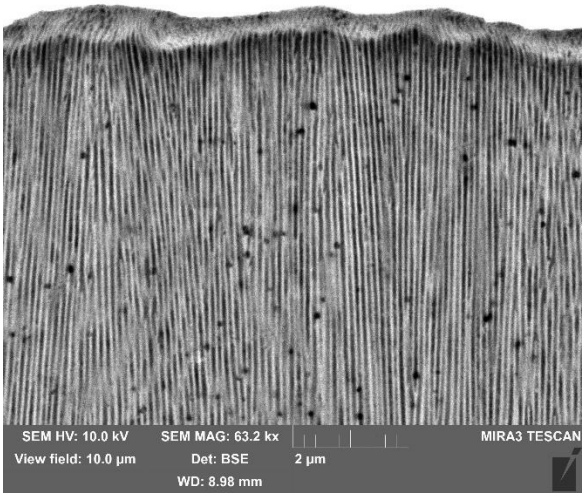
WD: 8.88 mm
MIRA3 TESCAN
View field: 10.00 µm
Det: BSE
2 µm

(b)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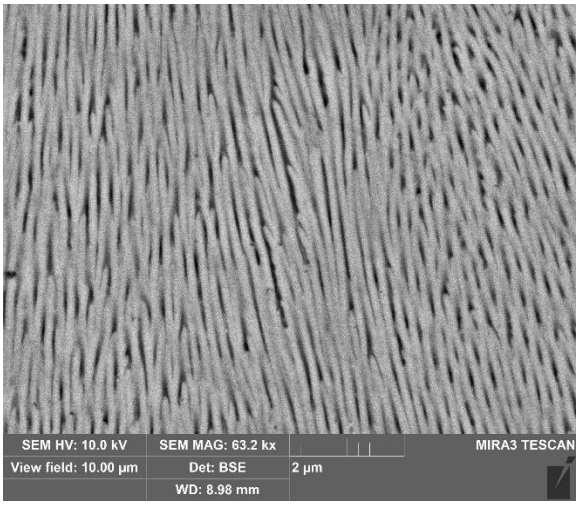
SEM MAG: 63.2 kx
MIRA3 TESCAN
View field: 10.0 µm
Det: BSE
2 µm
WD: 8.98 mm

(c)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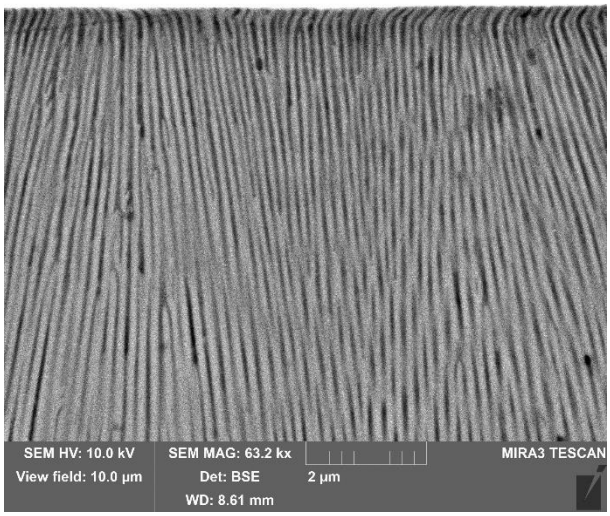
SEM MAG: 63.2 kx
MIRA3 TESCAN
View field: 10.00 µm
Det: BSE
2 µm
WD: 8.98 mm

(d)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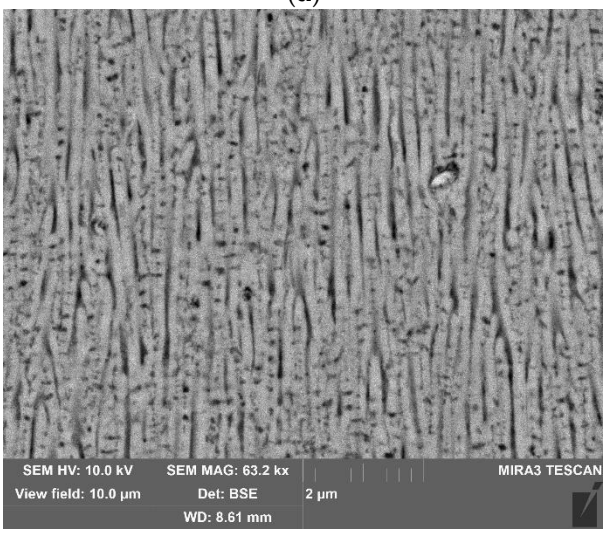
SEM MAG: 63.2 kx
MIRA3 TESCAN
View field: 10.0 µm
Det: BSE
2 µm
WD: 8.61 mm

(e)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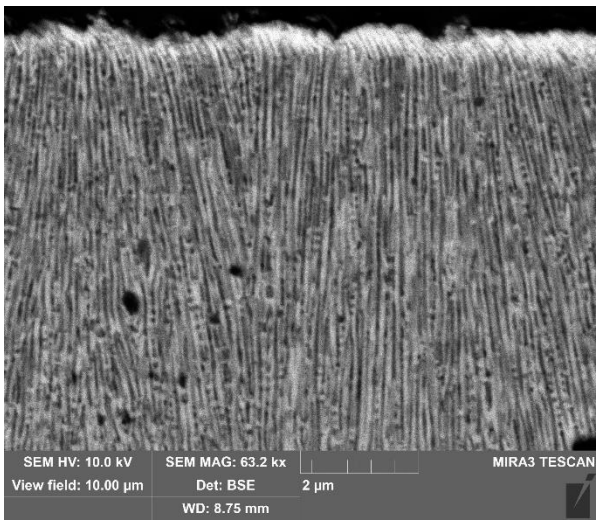
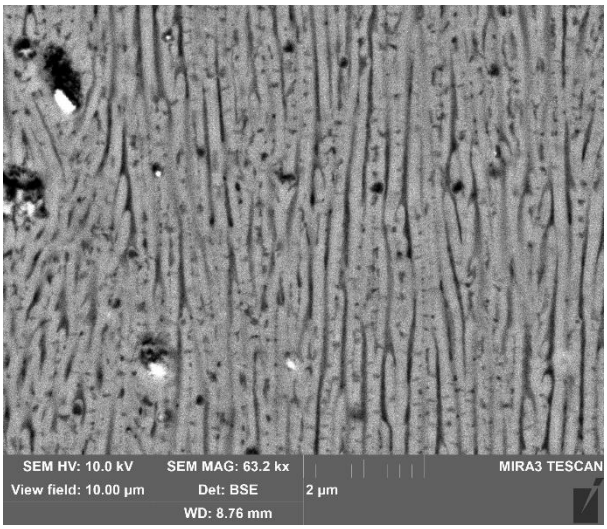
MIRA3 TESCAN
View field: 10.0 µm
Det: BSE
2 µm
WD: 8.61 mm

(f)



(g)



(h)

Figure S1. Scanning electron images of cross section AA#4 (**a**, **b**), AA#3 (**c**, **d**), AA#2 (**e**, **f**) and AA#1 (**g**, **h**). SEM images (**a**, **c**, **e** and **g**) obtained near the surface of anodic aluminum oxide, images (**b**, **d**, **f** and **h**) – near the interface of anodic aluminum oxide and bulk aluminum.