molecules

MDPI

Article

Contributions of Microelectrochemical Scanning Techniques for the Efficient Detection of Localized Corrosion Processes at the Cut Edges of Polymer-Coated Galvanized Steel

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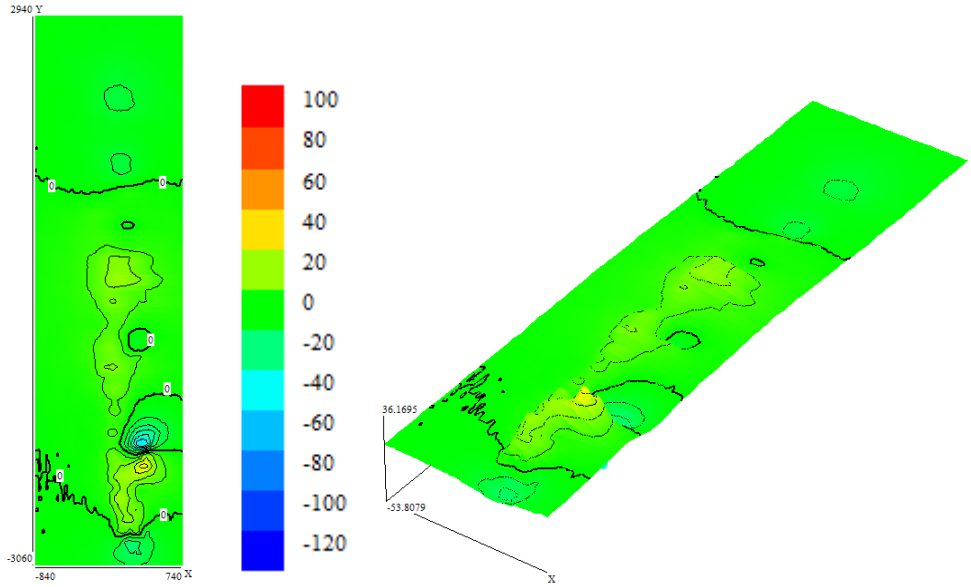
Figure S1. Sequence of SVET maps recorded on the cut edge of galvanized steel without organic coating layers during immersion in 1 mM NaCl solution

The X-Y dimensions of the maps are 1580 × 6000 μm², while the coloring bars give the current density values expressed in μA cm⁻².

15 min



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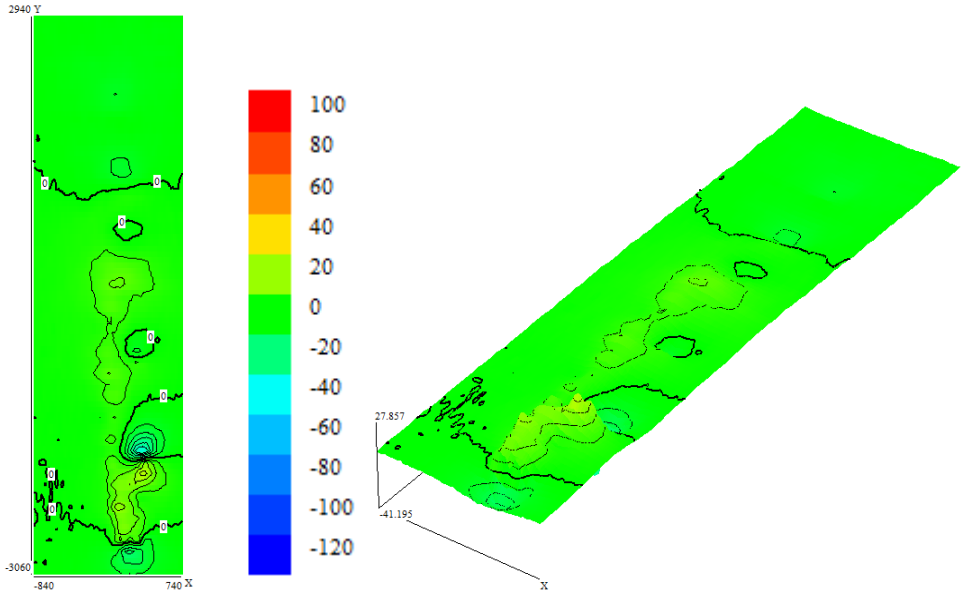

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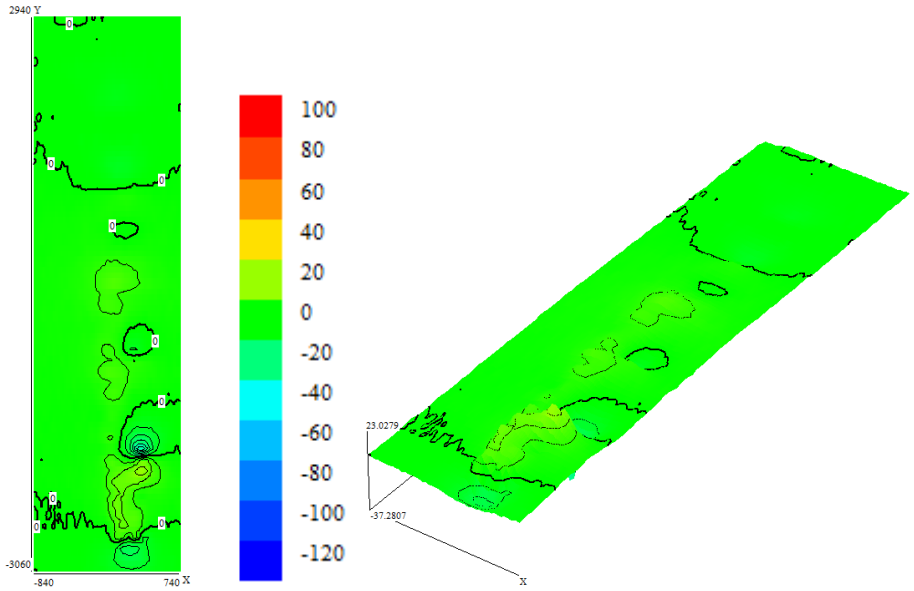

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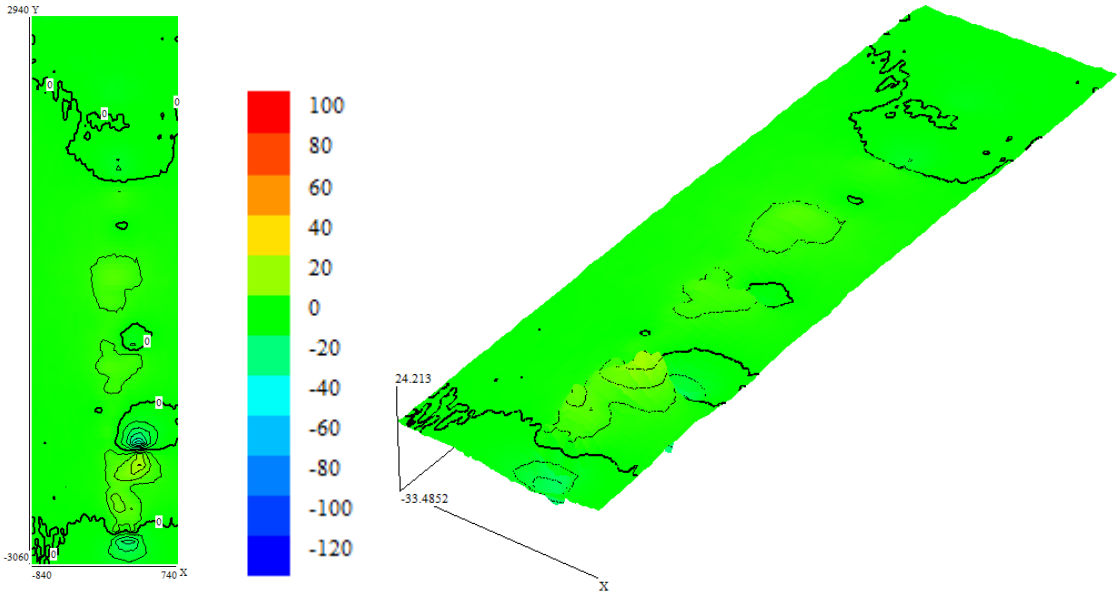
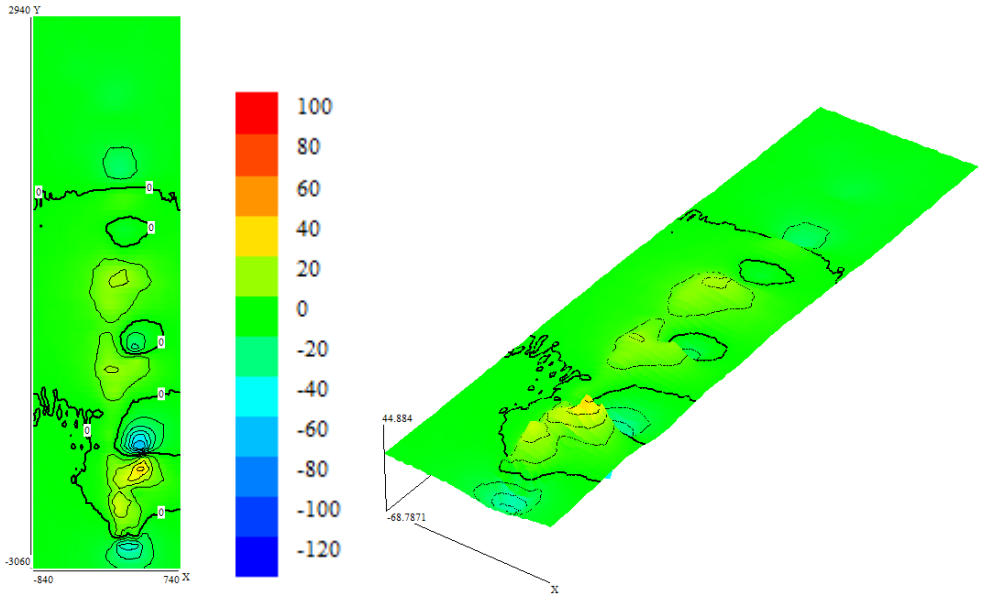

2940 Y
-3060
-840
740 X
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
24.213
-33.4852
X

75 min


2940 Y
-3060
-840
740 X
100
80
60
40
20
0
-20
-40
-60
-80
-100
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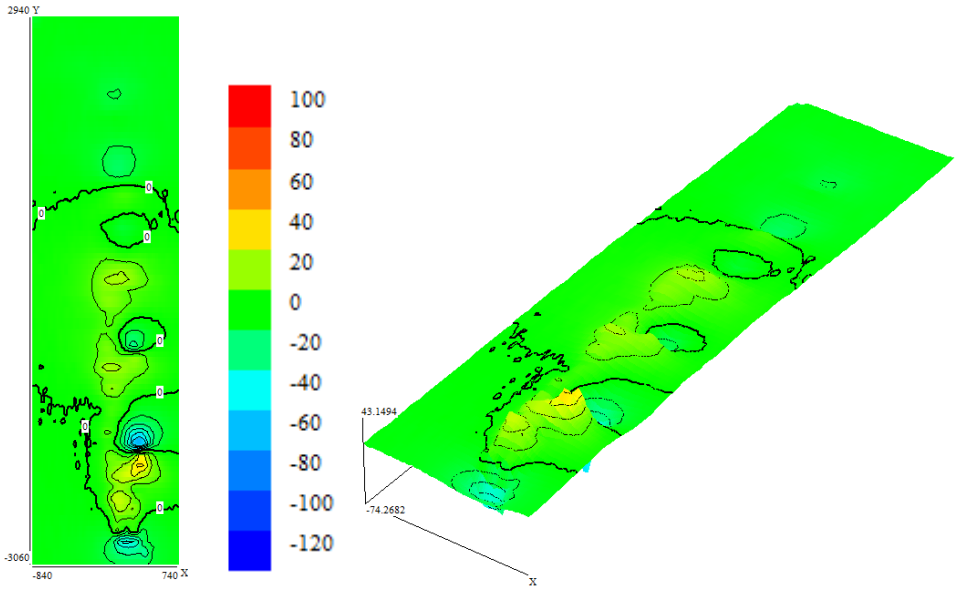
-68.7871
X

90 min



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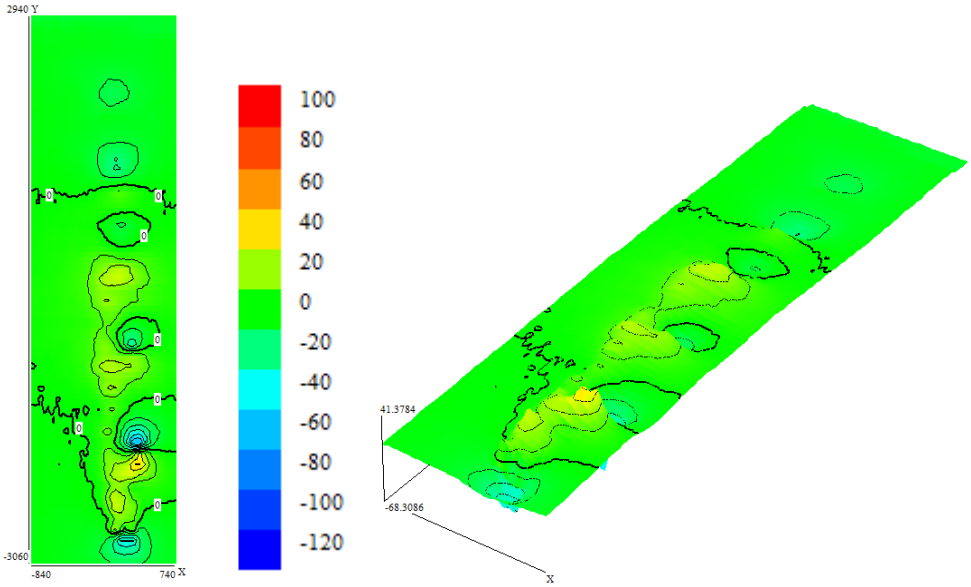

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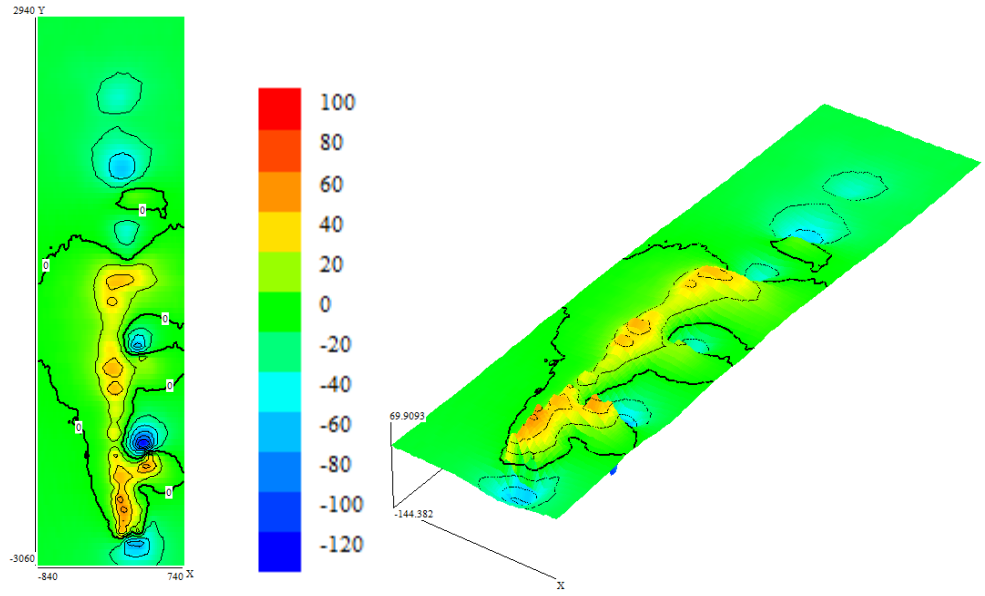

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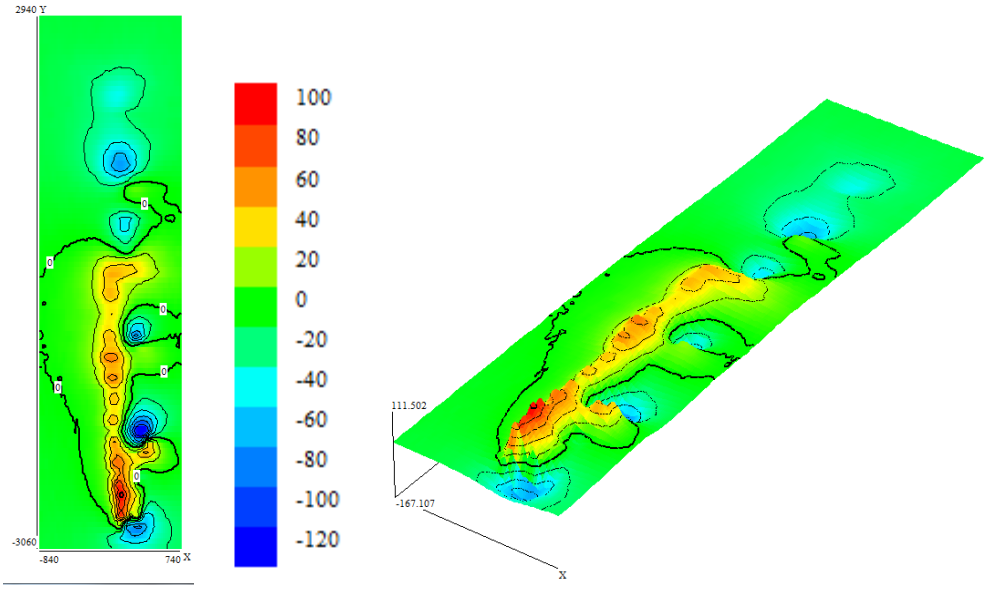

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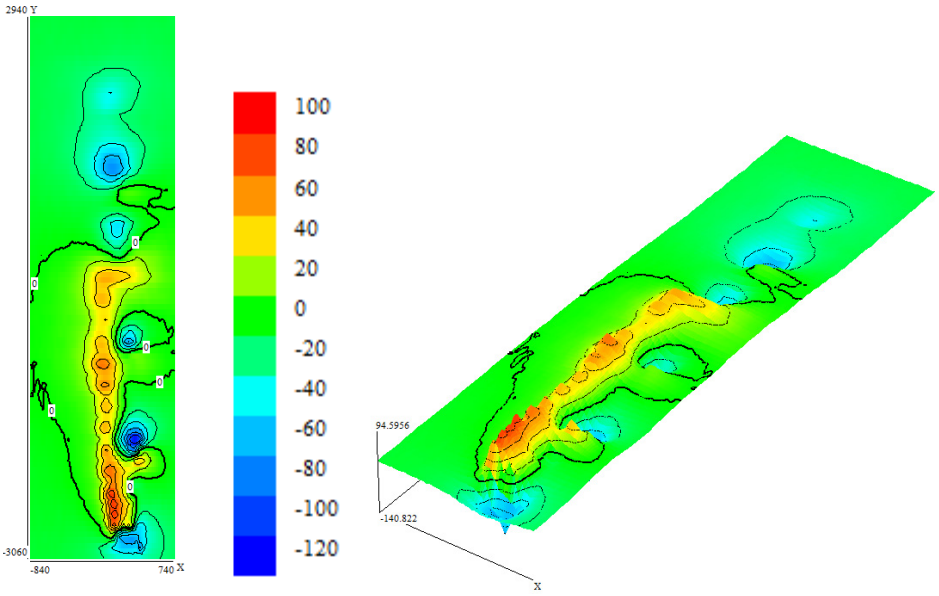

2940 Y
-3060
-840
740 X
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
94.5956
-140.822
X

165 min

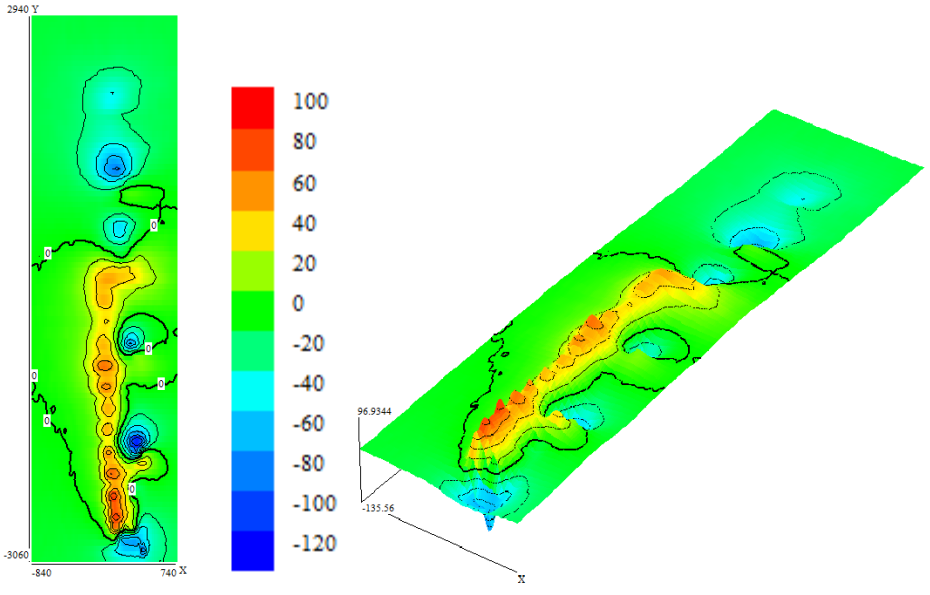
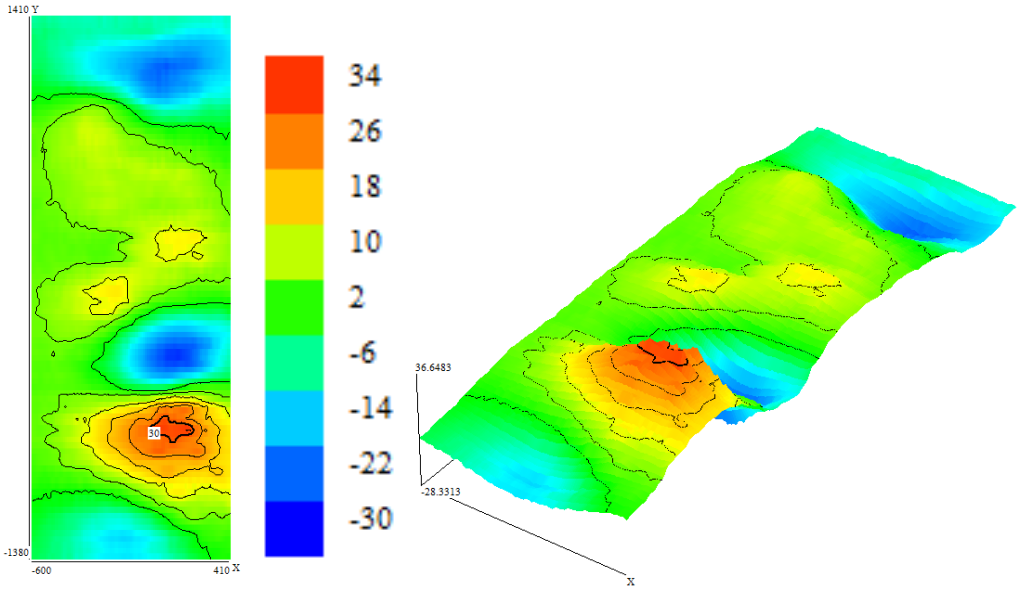

2940 Y
-3060
-840
740 X
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
96.9344
-135.56
X

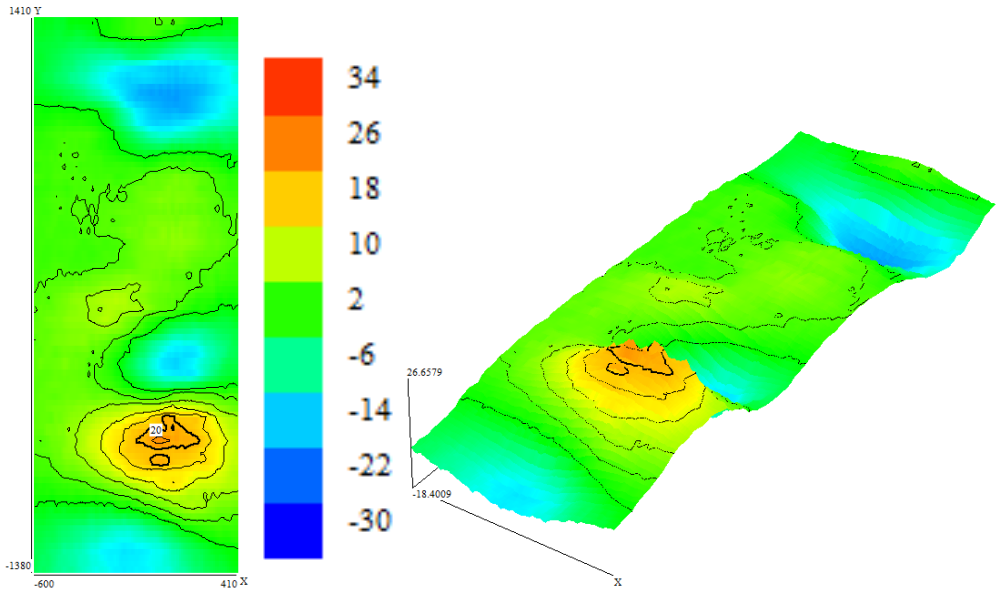
Figure S2. Sequence of SVET maps recorded on the cut edge of the complete coil coating system during immersion in 1 mM NaCl solution

The X-Y dimensions of the maps are 1010 × 2790 μm², while the coloring bars give the current density values expressed in μA cm⁻².

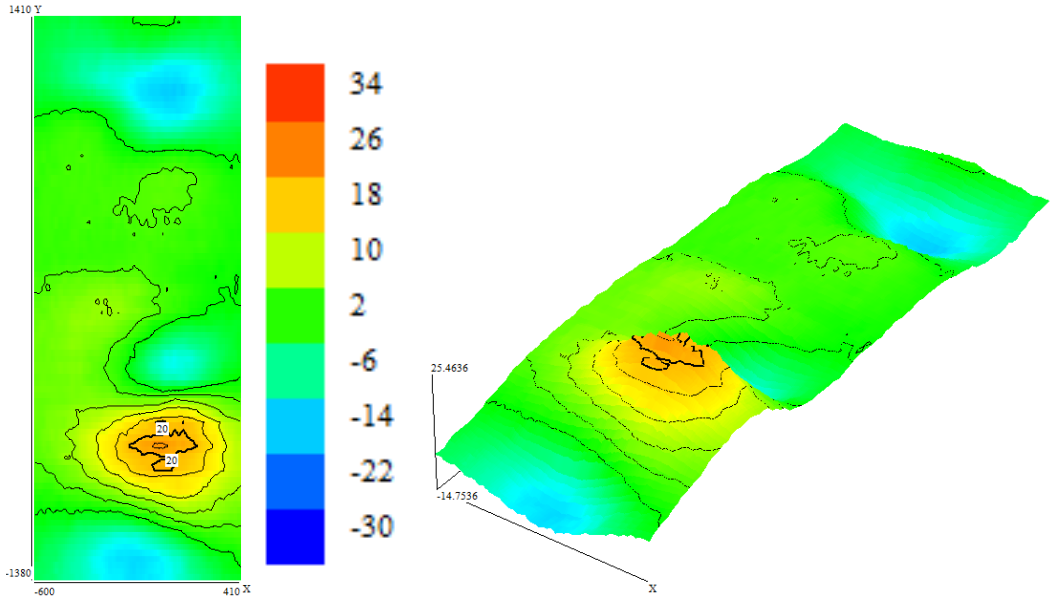
15 min



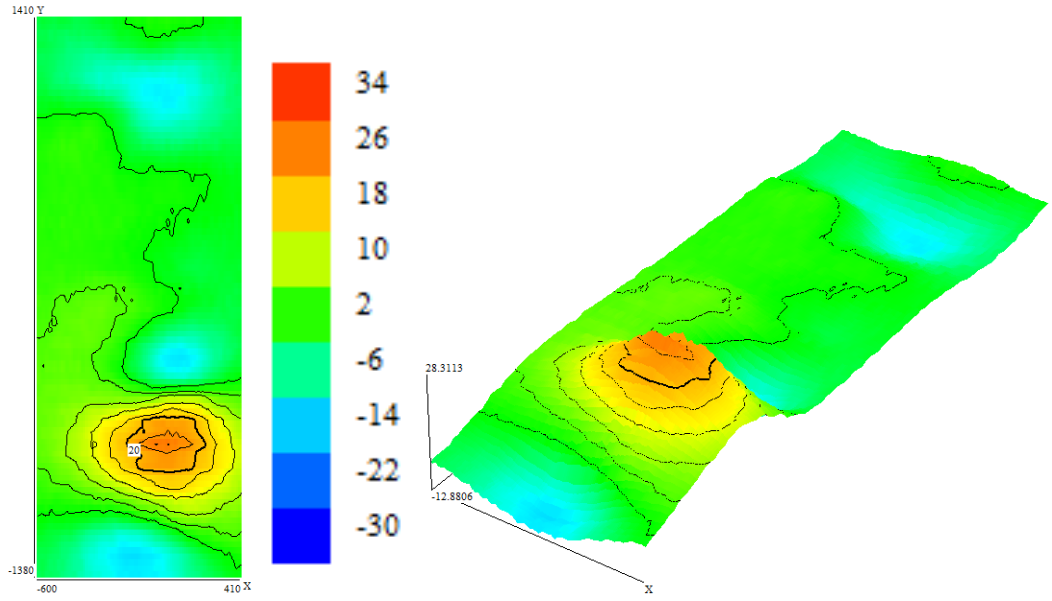
30min



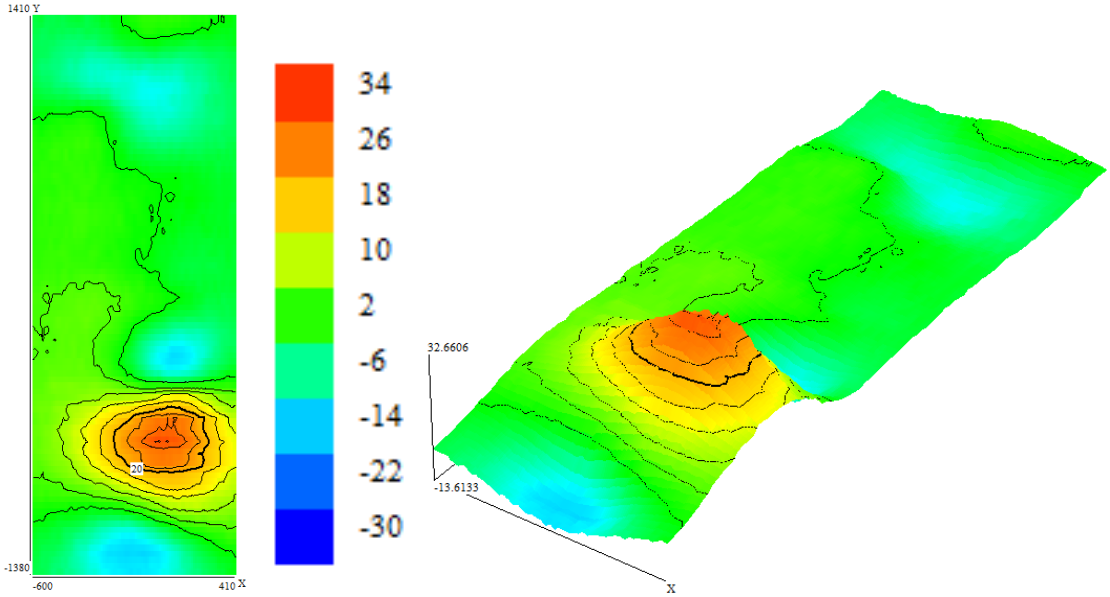
45 min


1410 Y
-1380
-600
410 X
34
26
18
10
2
-6
-14
-22
-30
20
20
25.4636
-14.7536
X

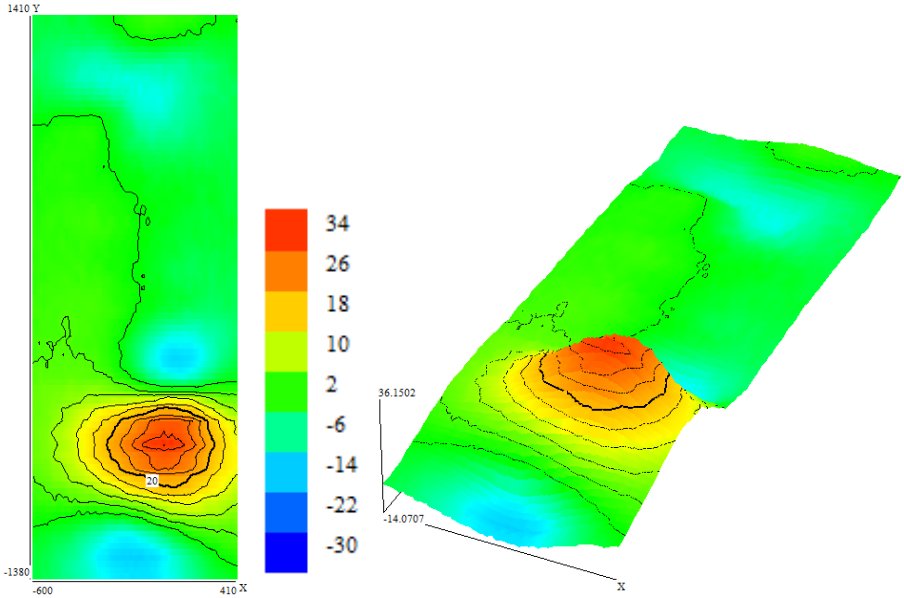
60 min


1410 Y
-1380
-600
410 X
34
26
18
10
2
-6
-14
-22
-30
20
28.3113
-12.8806
X

75 min



90 min



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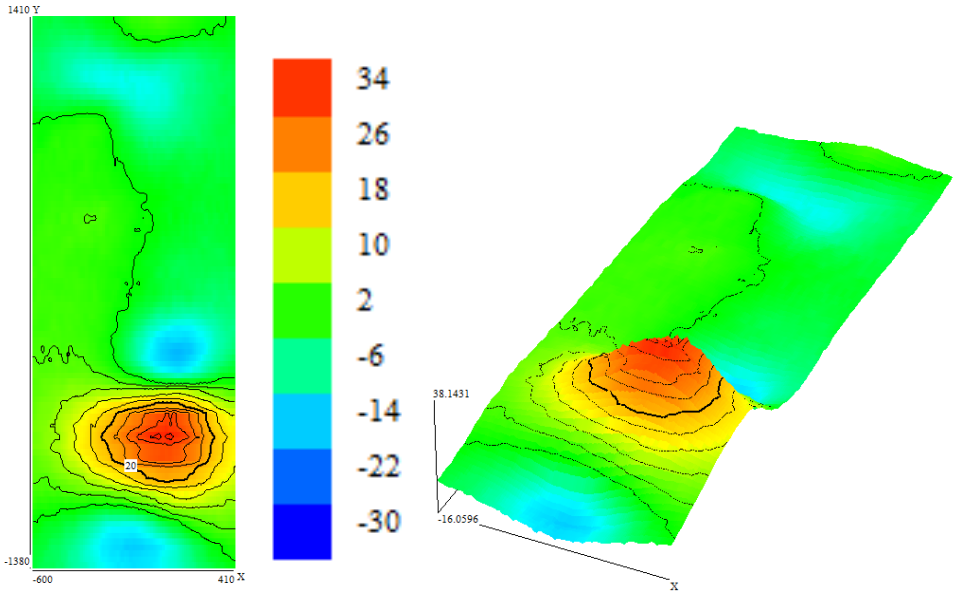

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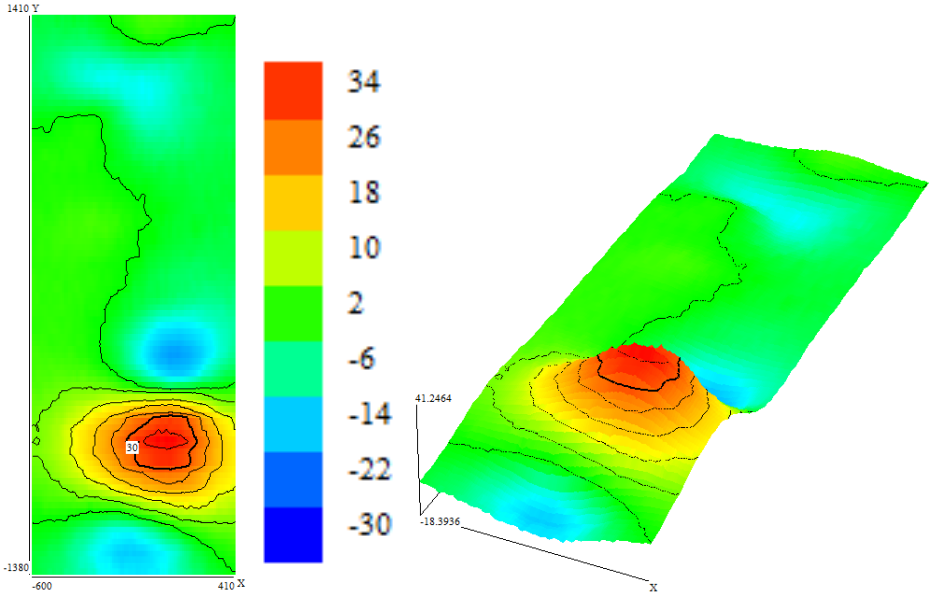
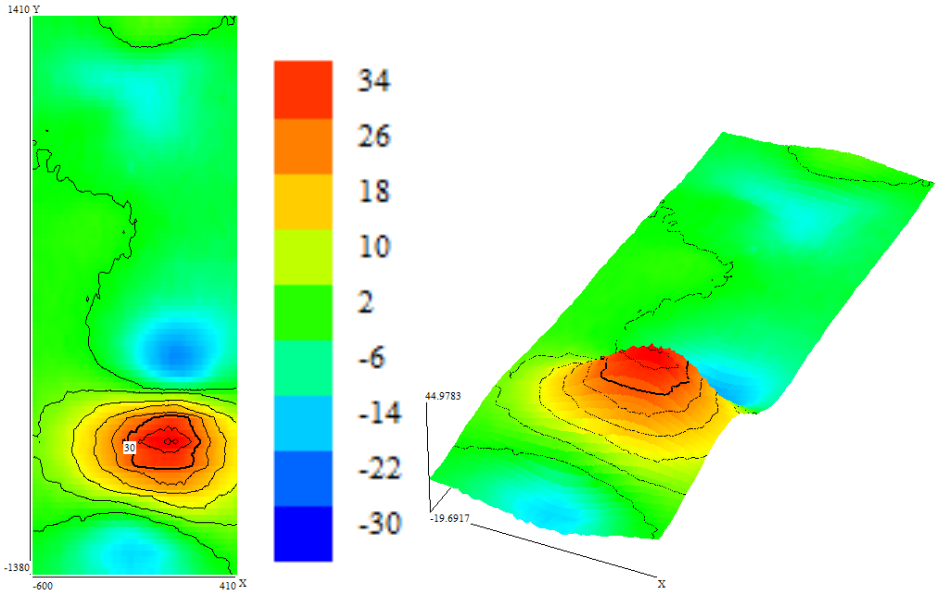
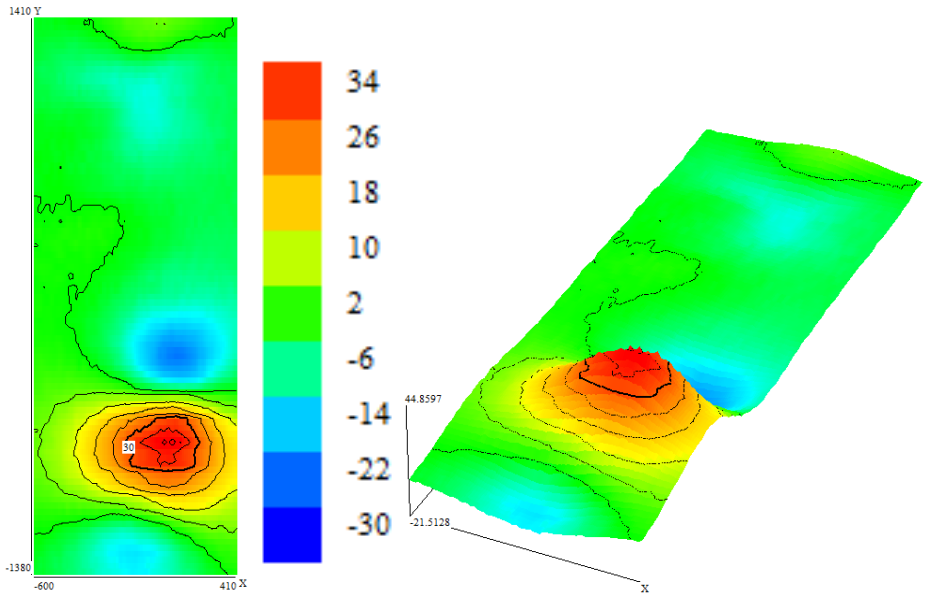


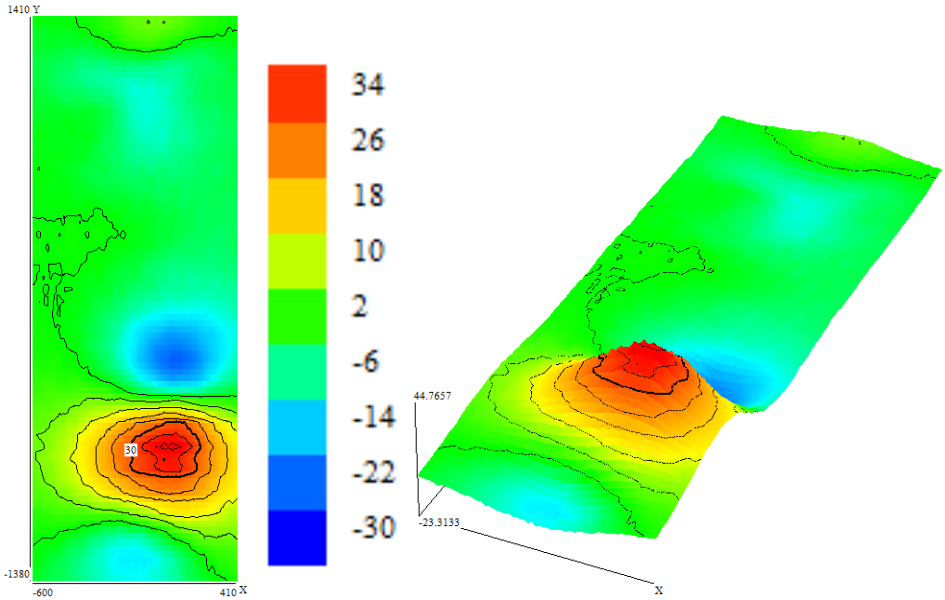
135 min



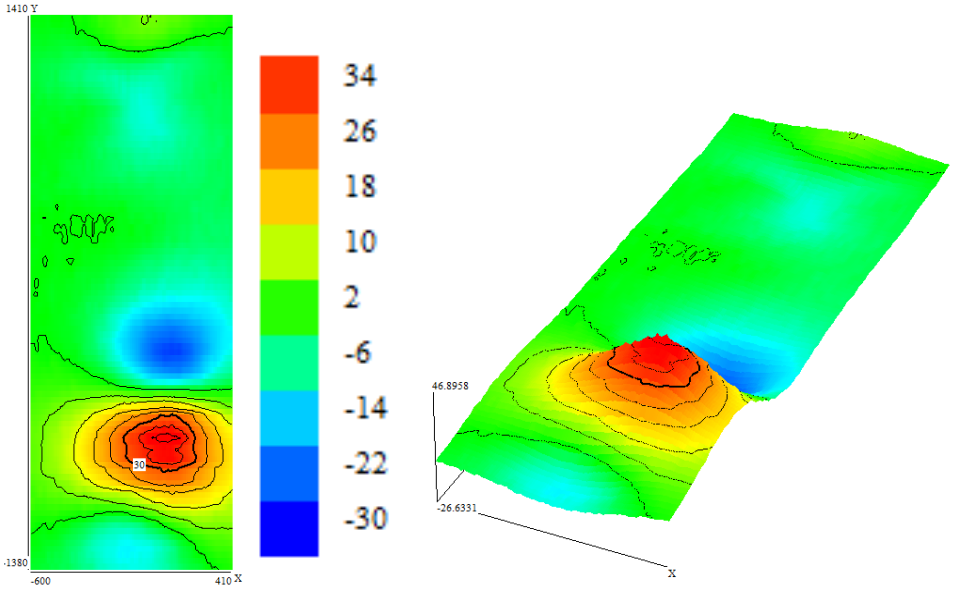
150 min



165 min


1410 Y
34
26
18
10
2
-6
-14
-22
-30
30
-1380
-600
410 X
44.7657
-23.3133
X

180 min


1410 Y
34
26
18
10
2
-6
-14
-22
-30
30
-1380
-600
410 X
46.8958
-26.6331
X