

EBSD detector Test INCA SYSTEM SETTING Parameters

Sample and Camera Geometry

Normal to Mount Rolling Direction

Sample Rotation 0.0

Sample Tilt 70.0

Screen Tilt 0.0

Camera Rotation 0.0

Stage Rotation 0.0

First Pattern Center calibration details

Working Distance 20.000

X 0.511

Y 0.287

Sample to screen distance 0.539

Second Pattern Center calibration details

Working Distance 32.000

X 0.549

Y 0.571

Sample to screen distance 0.539

Phase Details

Phase 1 Aluminum

Acquisition Setup

Integration time 88 ms

Video gain 88

Pattern Size 256

Background divided

Solver Settings

Minimum indexed bands 4

Maximum solution error 2.80

Depth of search for solution High Accuracy

Working distance top 20.000

Working distance bottom 20.000

Pattern center method Single pattern center

Pattern center X 0.511

Pattern center Y 0.287

Sample to screen distance 0.539

Hough Settings

Theta steps 90

Rho steps 90

Filter size 9

Detect minimum number of bands 4

Hough radius 55

Binned pattern size 128

Center X 64

Center Y 63

TopMap Settings

Topmap Width 512

Topmap Height 352

Number of points 15352

Image Width 512

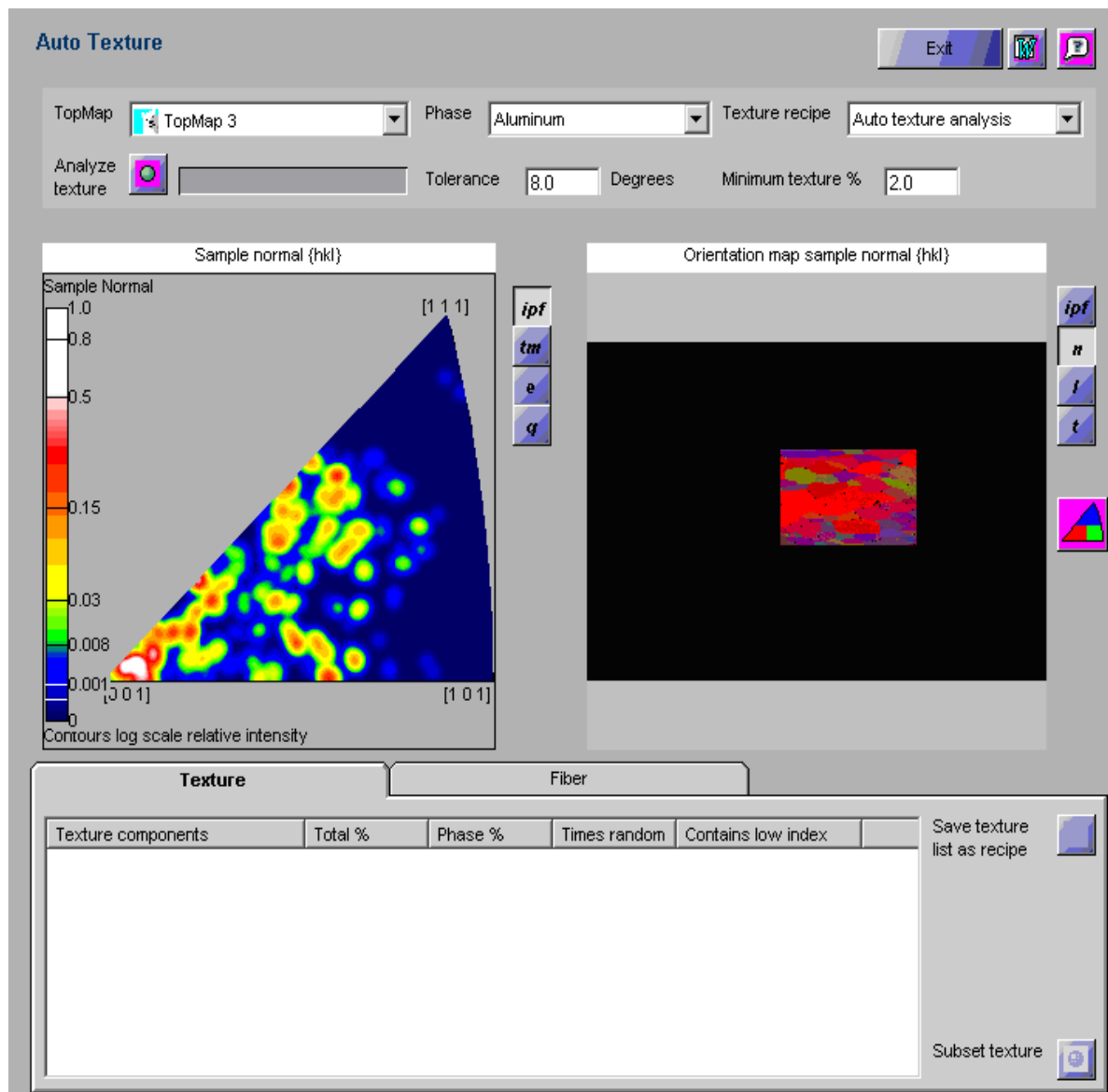
Image Height 352

Microscope Settings

HV (KV) 20.00

Magnification 200

Working Distance (mm) 20.00



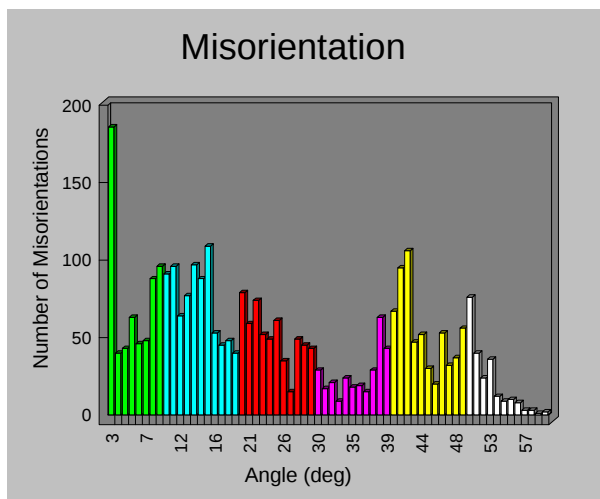
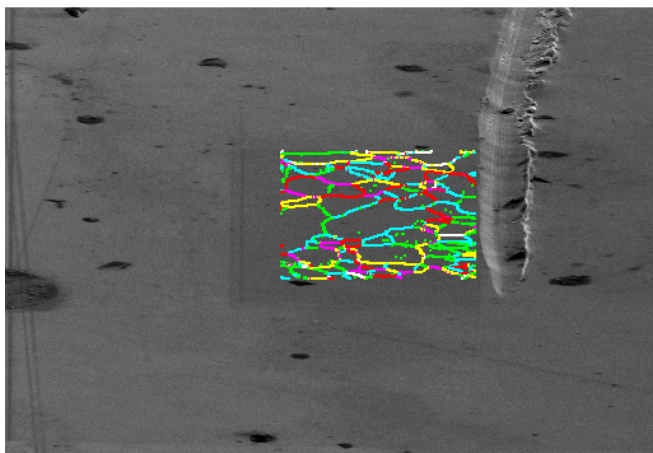


Image: Electron
 Overlay: None
 Selected phase isAll

Misorientations below 2.00 Degrees are rejected.

Green: 2.00 to 10.00 Degrees
 Cyan: 10.00 to 20.00 Degrees
 Red: 20.00 to 29.90 Degrees
 Magenta: 29.90 to 39.90 Degrees
 Yellow: 39.90 to 49.90 Degrees
 White: 49.90 to 59.90 Degrees

Angle (deg) Count %

2.90	186	6.03
3.81	40	1.30
4.71	43	1.39
5.62	63	2.04
6.52	46	1.49
7.43	48	1.56
8.33	88	2.85
9.23	96	3.11
10.14	91	2.95
11.04	96	3.11
11.95	64	2.07
12.85	77	2.50
13.76	97	3.14
14.66	88	2.85
15.56	109	3.53
16.47	53	1.72
17.37	45	1.46
18.28	48	1.56
19.18	40	1.30
20.08	79	2.56
20.99	59	1.91
21.89	74	2.40
22.80	52	1.69
23.70	49	1.59
24.61	61	1.98
25.51	35	1.13
26.41	15	0.49
27.32	49	1.59
28.22	45	1.46
29.13	43	1.39
30.03	29	0.94
30.94	17	0.55
31.84	21	0.68
32.74	9	0.29
33.65	24	0.78
34.55	18	0.58
35.46	19	0.62
36.36	15	0.49
37.27	29	0.94
38.17	63	2.04

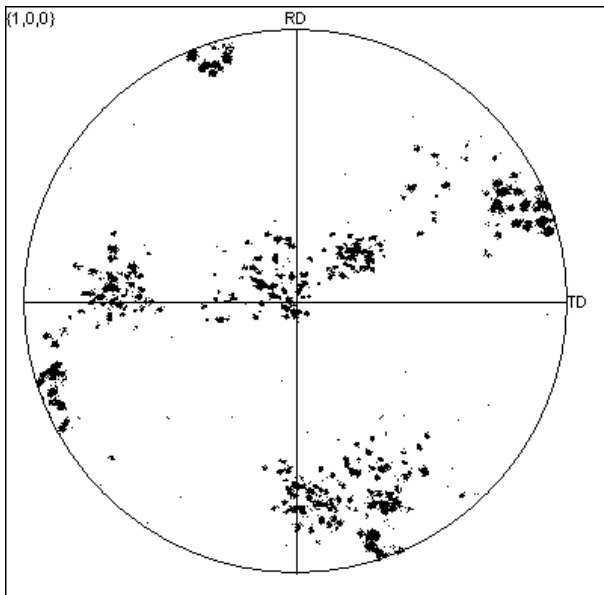
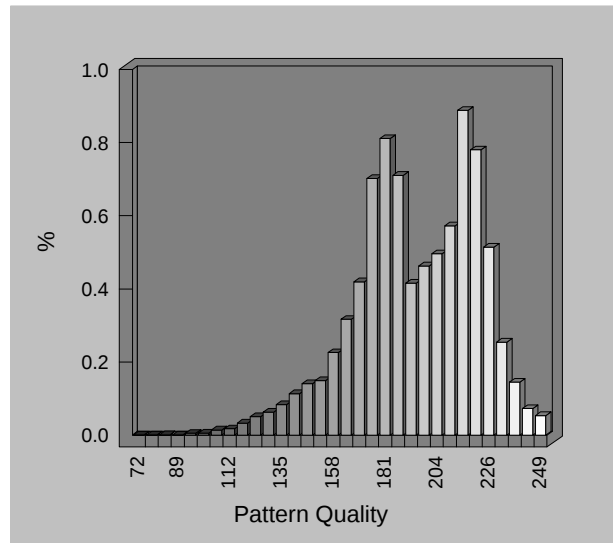
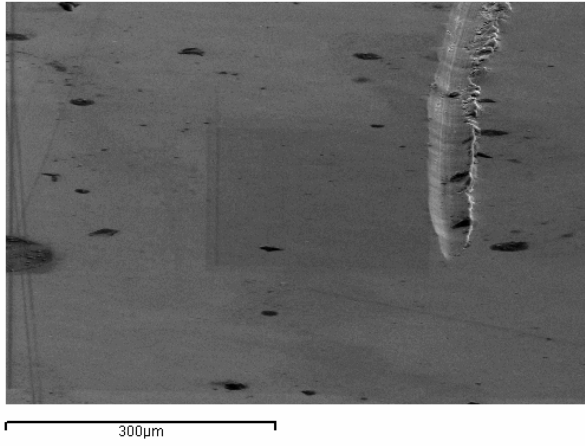
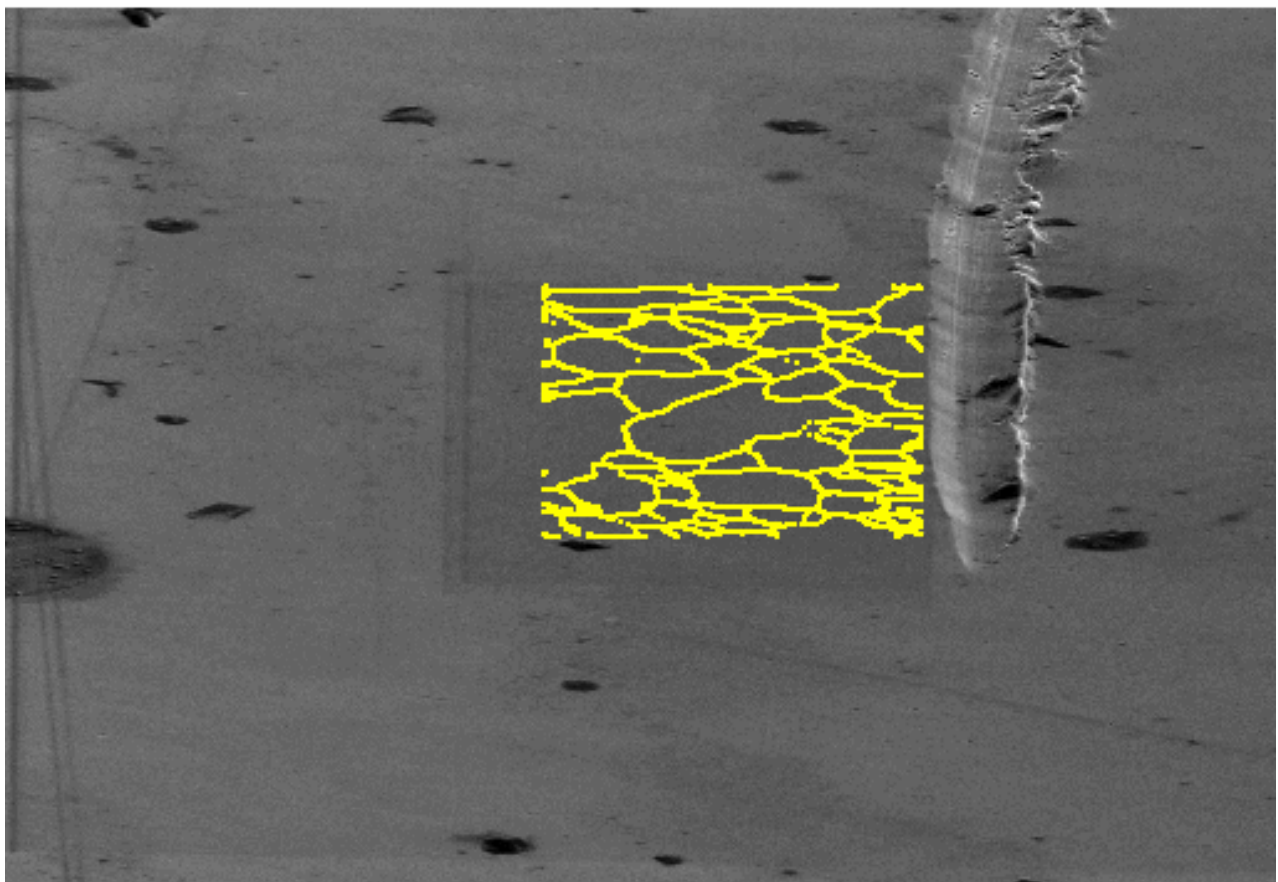


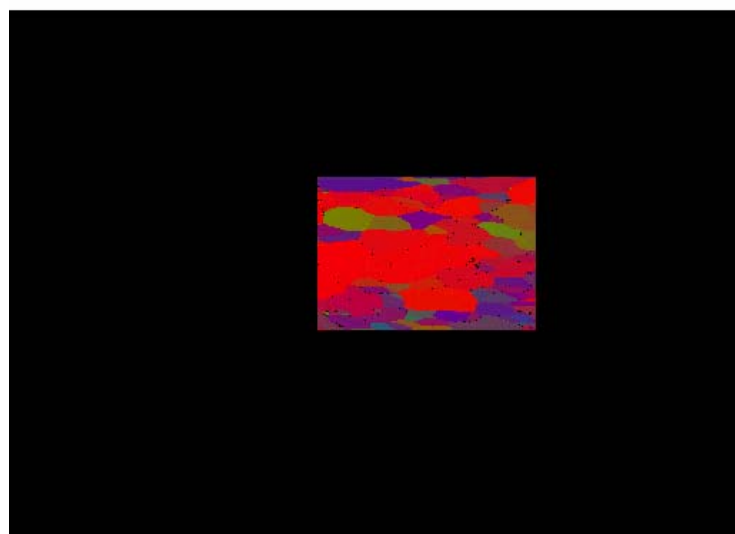
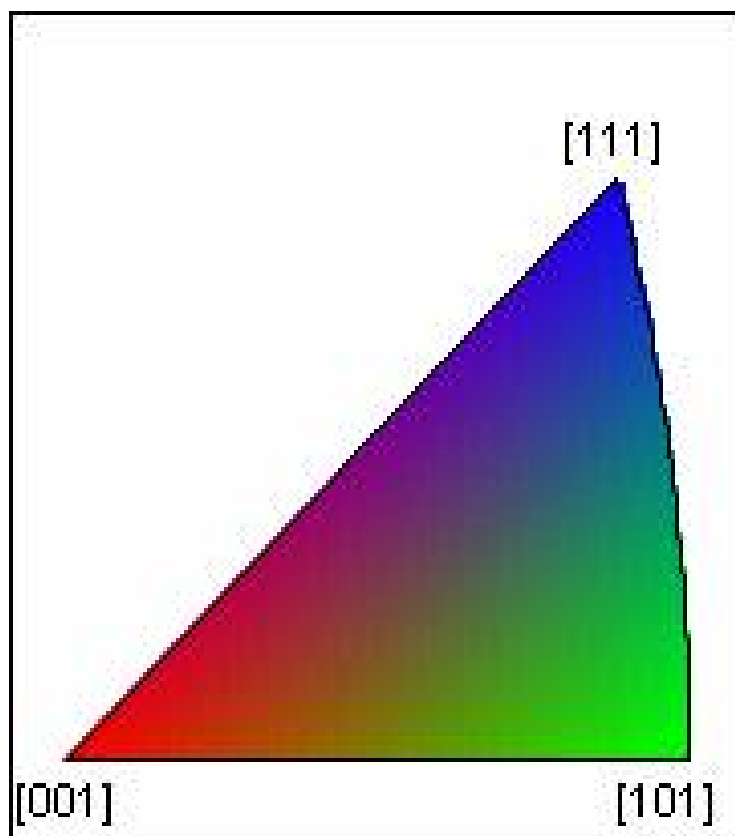
Image: Electron
Overlay: None

Selected phase is Aluminum

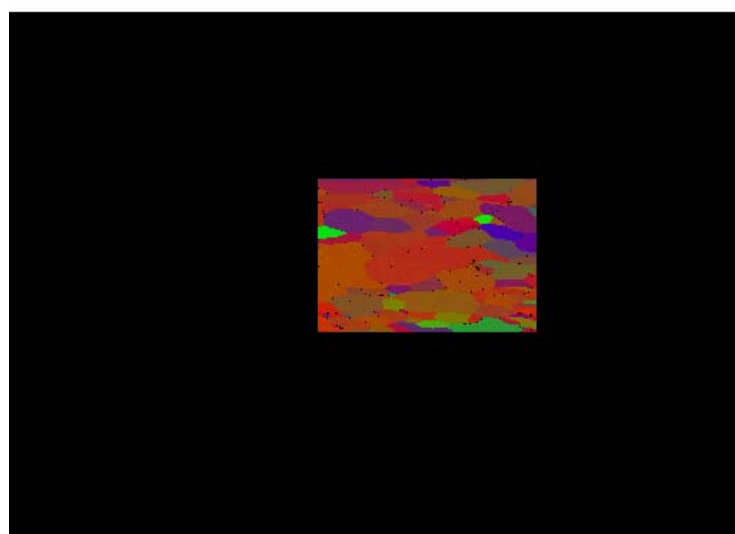
Histogram: Pattern Quality
Histogram of pixels between 72 and 255



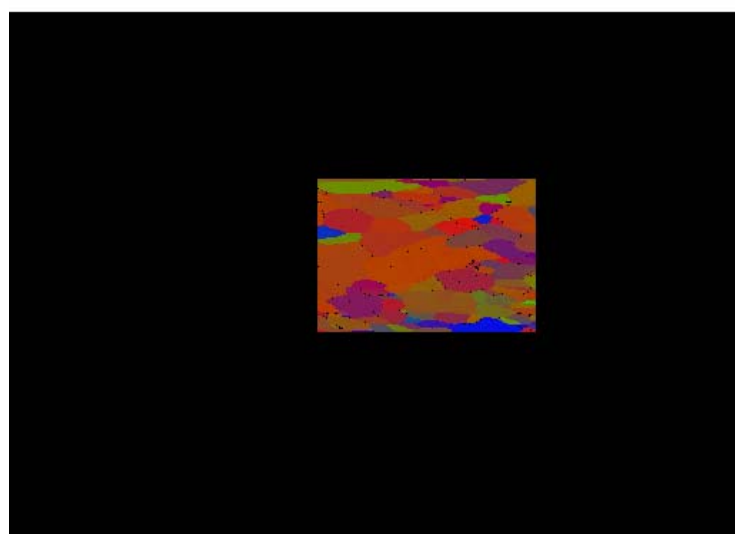
300µm



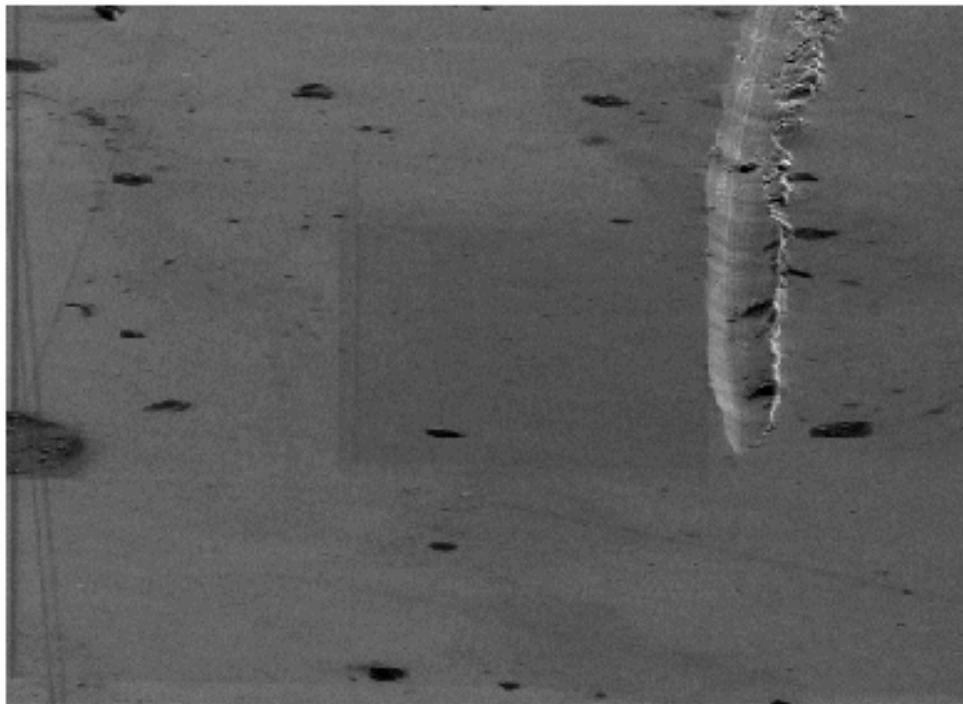
Orientation map normal direction Phase: Aluminum



Orientation map rolling direction Phase: Aluminum



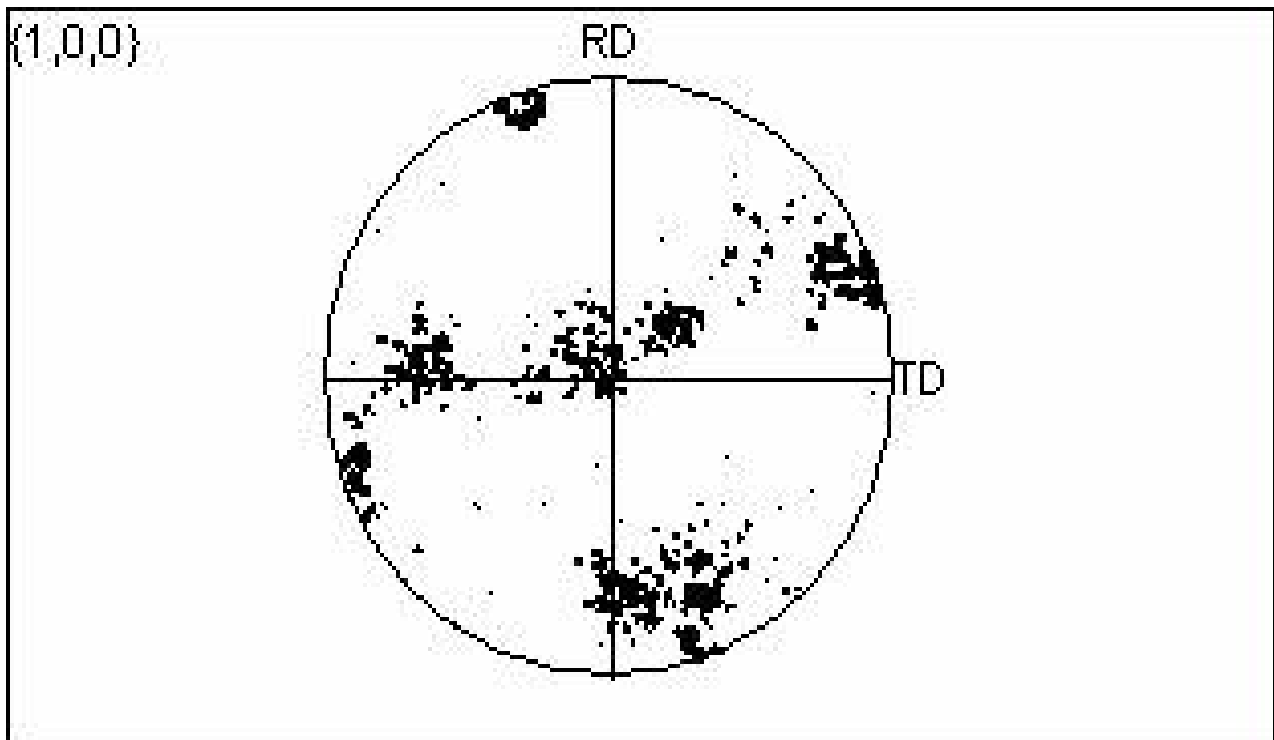
Orientation map transverse direction Phase: Aluminum



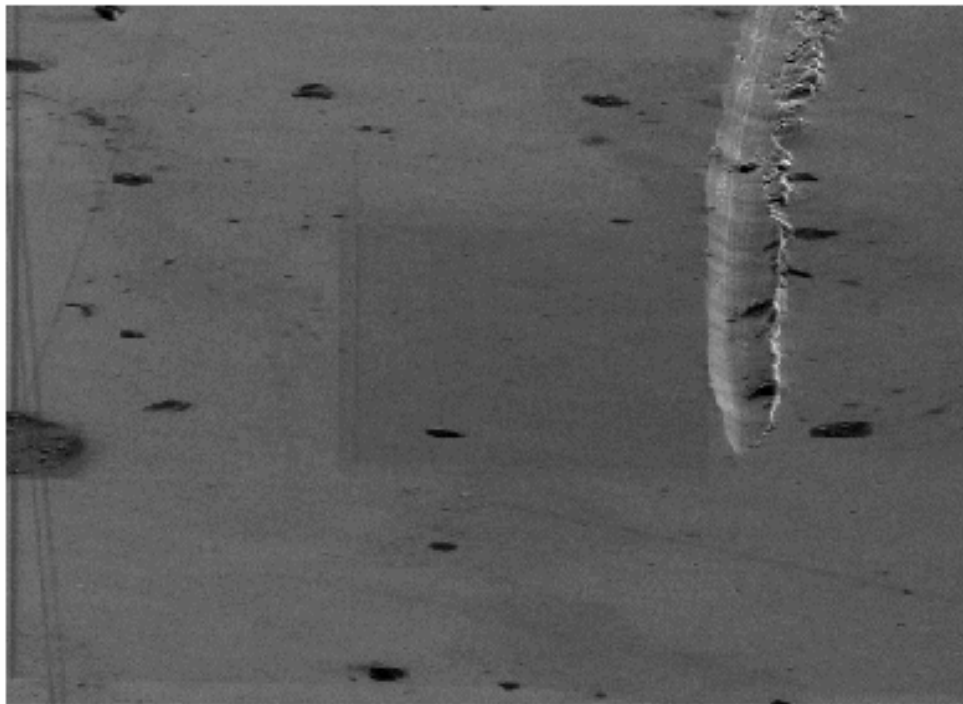
300µm

Electron Image 1

Selected phase: Aluminum
Maximum residual error: 2.8
Minimum bands indexed: 4



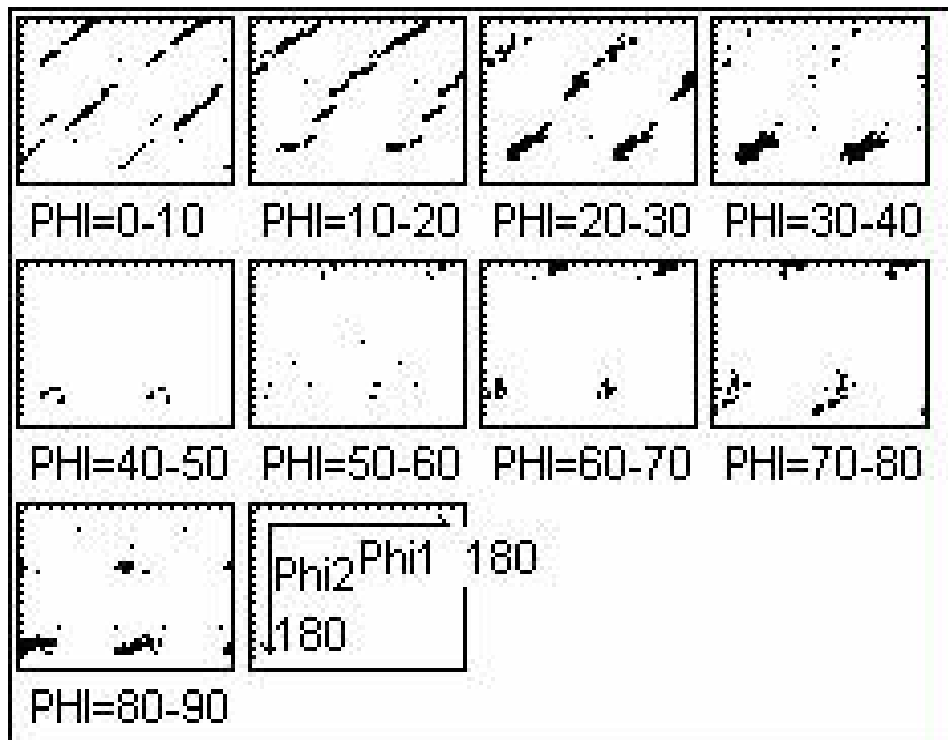
Comment:



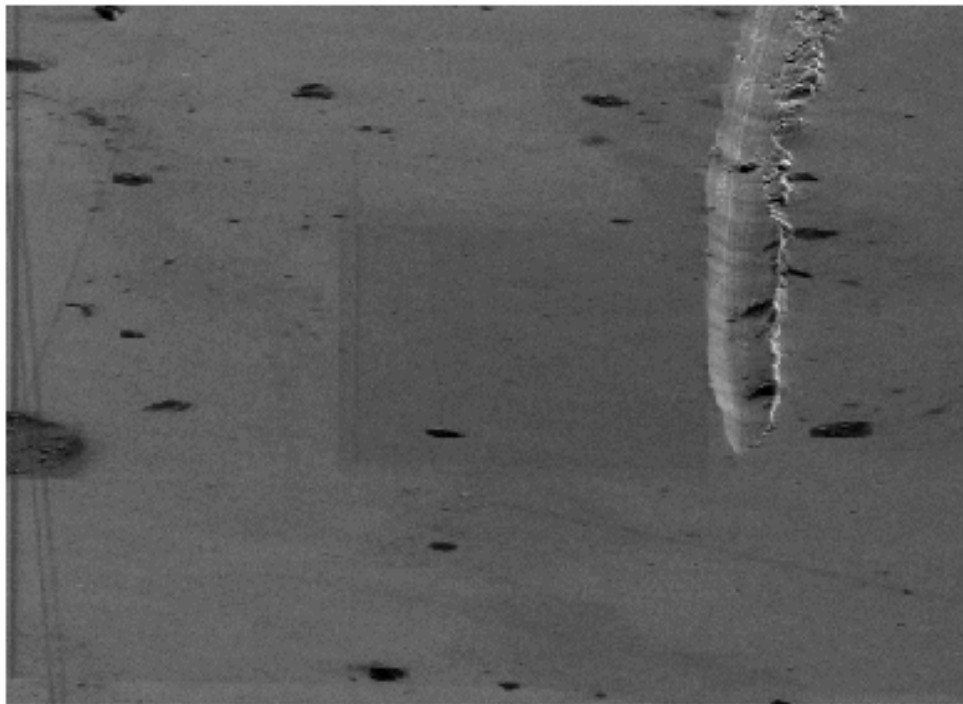
300µm

Electron Image 1

Selected phase: Aluminum
Maximum residual error: 2.8
Minimum bands indexed: 4



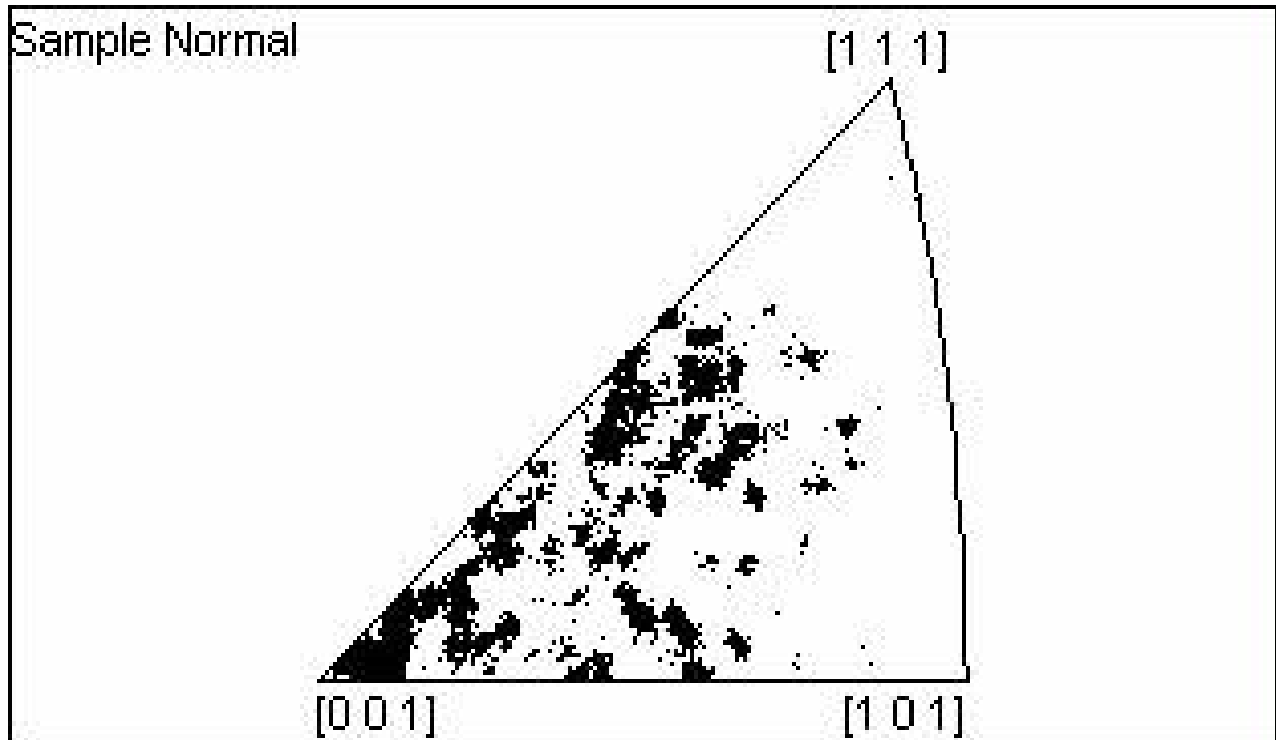
Comment:



300µm

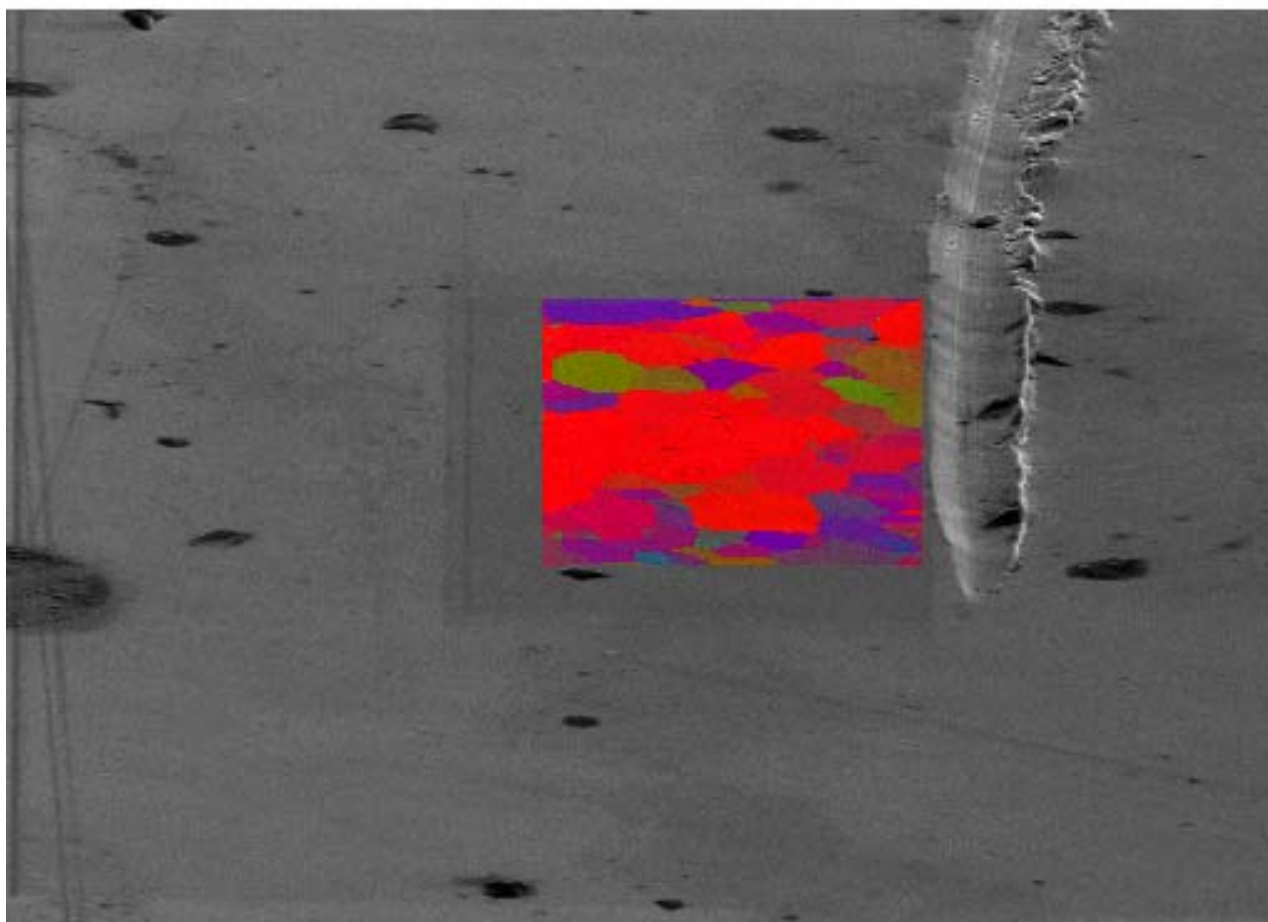
Electron Image 1

Selected phase: Aluminum
Maximum residual error: 2.8
Minimum bands indexed: 4

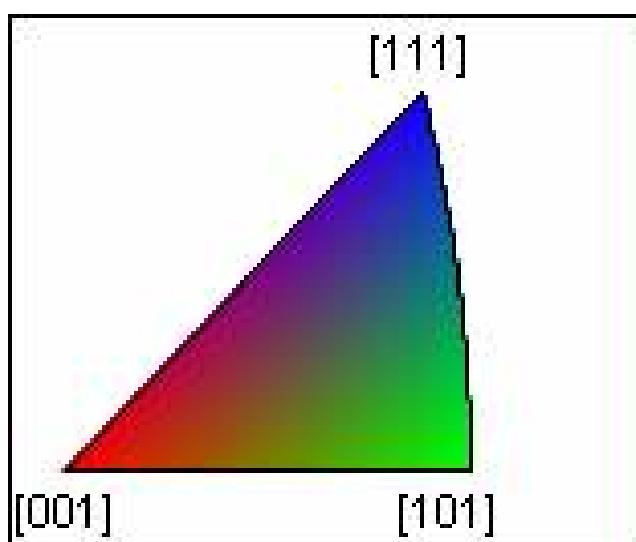


Comment:

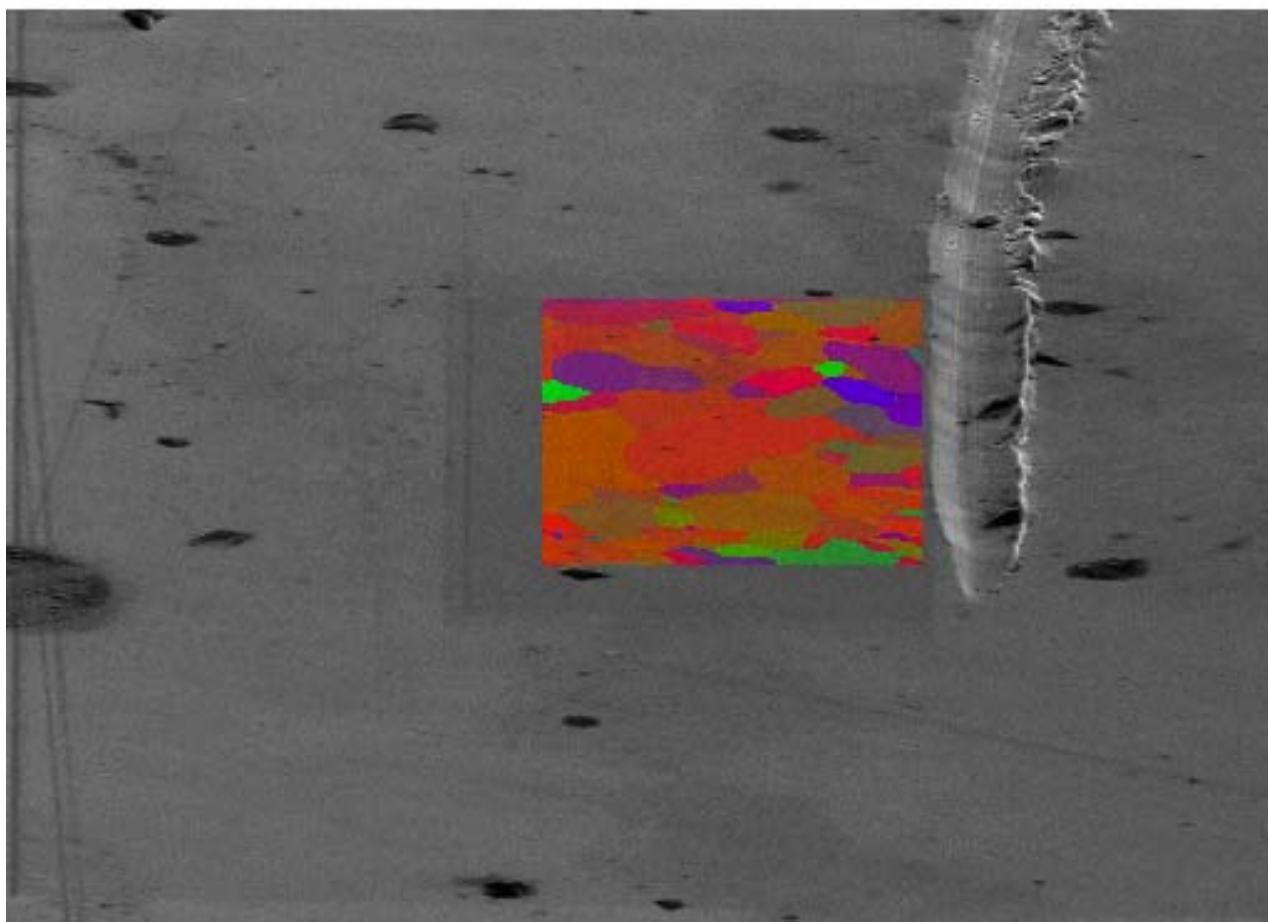
Selected phase: Aluminum
Maximum residual error: 2.8
Minimum bands indexed: 4



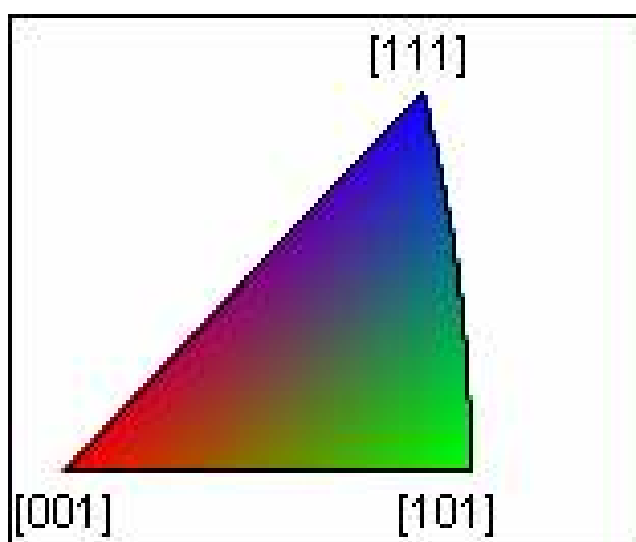
Electron image overlaid with orientation map normal direction Phase: Aluminum



Selected phase: Aluminum
Maximum residual error: 2.8
Minimum bands indexed: 4



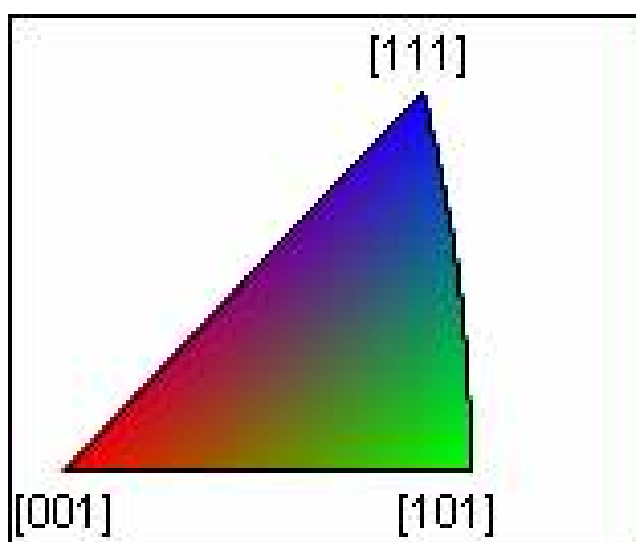
Electron image overlaid with orientation map rolling direction Phase: Aluminum



Selected phase: Aluminum
Maximum residual error: 2.8
Minimum bands indexed: 4



Pattern quality overlayed with orientation map rolling direction Phase: Aluminum



Point	x	y	Crystal name	{h,k,l}	<u,v,w>	Phi1	Phi2	Phi	Pattern Q	Residual error
0	216	111	Aluminum	{1,12,0}	<10,-1,4>	175.37	157.99	89.09	179	1.08
1	217	111	Aluminum	{5,-3,2}	<6,13,4>	59.02	16.34	70.96	228	0.89
2	218	111	Aluminum	{5,12,-7}	<4,6,13>	156.95	94.37	118.96	211	0.46
3	219	111	Aluminum	{13,-6,-8}	<6,-4,13>	66.13	93.99	118.77	230	0.92
4	220	111	Aluminum	{18,-8,-11}	<6,-4,13>	66.24	94.47	118.63	245	1.07
5	221	111	Aluminum	{5,-2,-3}	<6,-4,13>	67.47	94.65	118.73	232	0.70
6	222	111	Aluminum	{5,-3,2}	<6,13,4>	59.24	16.18	70.96	233	0.91
7	223	111	Aluminum	{5,-2,-3}	<6,-4,13>	67.63	95.04	118.75	236	0.81
8	224	111	Aluminum	{3,7,-4}	<4,6,13>	156.67	94.52	118.53	229	0.83
9	225	111	Aluminum	{2,5,-3}	<3,5,11>	157.52	94.05	118.44	241	1.41
10	226	111	Aluminum	{7,3,4}	<6,4,-13>	112.77	274.87	61.47	222	0.57
11	227	111	Aluminum	{3,7,-4}	<4,6,13>	156.72	95.15	118.69	240	0.86
12	228	111	Aluminum	{5,-3,2}	<6,13,4>	59.29	16.47	70.98	223	0.97
13	229	111	Aluminum	{5,2,3}	<6,4,-13>	112.80	275.11	61.21	229	0.62
14	230	111	Aluminum	{2,5,-3}	<4,6,13>	157.28	94.99	118.88	239	1.12
15	231	111	Aluminum	{7,-3,-4}	<6,-4,13>	66.88	94.88	118.60	231	0.80
16	232	111	Aluminum	{2,5,-3}	<4,6,13>	157.18	94.95	118.87	232	0.69
17	233	111	Aluminum	{7,-3,-4}	<6,-4,13>	66.46	94.75	118.56	224	0.75
18	234	111	Aluminum	{2,5,-3}	<4,6,13>	157.47	94.86	118.71	231	0.91
19	235	111	Aluminum	{2,5,-3}	<4,6,13>	157.41	95.00	118.53	217	0.55
20	236	111	Aluminum	{7,-3,-4}	<6,-4,13>	66.85	94.58	118.50	224	0.78
21	237	111	Aluminum	{2,5,-3}	<4,6,13>	157.71	95.14	118.48	229	0.87
22	238	111	Aluminum	{12,5,7}	<6,4,-13>	112.98	275.01	61.10	237	0.95
23	239	111	Aluminum	{5,12,-7}	<4,6,13>	157.12	95.21	118.77	227	0.84
24	240	111	Aluminum	{-5,-7,12}	<-4,13,6>	324.77	136.25	36.34	230	0.78
25	241	111	Aluminum	{2,5,-3}	<4,6,13>	157.70	95.19	118.84	231	0.59
26	242	111	Aluminum	{2,5,-3}	<4,6,13>	157.62	95.19	118.92	234	0.54
27	243	111	Aluminum	{-2,-3,5}	<-4,13,6>	325.86	135.16	35.70	233	0.65
28	244	111	Aluminum	{2,5,-3}	<4,6,13>	157.69	95.12	118.98	237	0.67
29	245	111	Aluminum	{5,-3,2}	<6,13,4>	59.17	16.34	71.10	236	0.81
30	246	111	Aluminum	{2,5,-3}	<4,6,13>	157.14	95.02	119.05	240	0.91
31	247	111	Aluminum	{5,-3,2}	<6,13,4>	59.19	16.13	70.75	235	0.72
32	248	111	Aluminum	{12,-5,-7}	<6,-4,13>	66.57	94.36	118.74	232	0.73
33	249	111	Aluminum	{2,5,-3}	<4,6,13>	157.46	94.72	118.89	226	0.63
34	250	111	Aluminum	{-11,8,18}	<13,4,6>	233.82	137.28	36.57	232	0.97
35	251	111	Aluminum	{5,-2,-3}	<6,-4,13>	68.13	95.28	119.04	221	0.78
36	252	111	Aluminum	{5,12,-7}	<4,6,13>	156.94	94.84	119.00	232	0.76
37	253	111	Aluminum	{5,-3,2}	<5,10,3>	58.79	16.18	70.26	226	0.64
38	254	111	Aluminum	{2,5,-3}	<4,6,13>	157.32	94.90	118.92	235	0.71

39	255	111	Aluminum	{2,5,-3}	<4,6,13>	157.33	95.00	118.78	246	0.60
40	256	111	Aluminum	{5,12,-7}	<4,6,13>	157.02	95.21	119.16	220	0.89
41	257	111	Aluminum	{7,16,-10}	<4,6,13>	156.49	95.47	119.31	219	1.14
42	258	111	Aluminum	{2,5,-3}	<4,6,13>	157.17	94.76	118.92	219	0.64
43	259	111	Aluminum	{2,5,-3}	<4,6,13>	157.21	94.91	118.74	221	0.60
44	260	111	Aluminum	{2,5,-3}	<4,6,13>	157.29	94.91	118.86	237	0.66
45	261	111	Aluminum	{2,5,-3}	<4,6,13>	157.40	94.88	118.90	225	0.47
46	262	111	Aluminum	{5,-3,2}	<6,13,4>	59.24	15.87	70.58	226	0.68
47	263	111	Aluminum	{5,12,-7}	<4,6,13>	156.99	94.76	119.11	233	0.81
48	264	111	Aluminum	{5,-3,2}	<6,13,4>	59.19	15.98	70.83	236	0.67
49	265	111	Aluminum	{5,12,-7}	<4,6,13>	156.80	94.49	119.02	234	0.55
50	266	111	Aluminum	{5,-3,2}	<6,13,4>	59.25	16.05	70.77	248	0.81
51	267	111	Aluminum	{2,5,-3}	<4,6,13>	158.10	94.85	118.84	246	0.85
52	268	111	Aluminum	{5,-3,2}	<6,13,4>	59.28	16.35	70.94	231	0.68
53	269	111	Aluminum	{7,-3,-4}	<6,-4,13>	66.67	94.53	118.54	236	0.75
54	270	111	Aluminum	{-2,-3,5}	<-3,11,5>	324.74	135.03	35.59	229	1.08
55	271	111	Aluminum	{2,5,-3}	<4,6,13>	157.90	94.98	118.64	236	0.83
56	272	111	Aluminum	{5,2,3}	<6,4,-13>	112.58	275.13	61.16	210	0.81
57	273	111	Aluminum	{2,5,-3}	<4,6,13>	158.57	95.55	118.78	209	1.34
58	274	111	Aluminum	{-6,18,1}	<-2,-1,8>	198.25	73.97	87.46	170	2.64
59	275	111	Aluminum	{6,-18,1}	<2,1,8>	18.41	74.93	87.87	199	0.95
60	276	111	Aluminum	{1,-6,18}	<8,-2,-1>	7.44	337.47	18.24	195	2.02
61	277	111	Aluminum	{5,15,-1}	<2,-1,-8>	161.75	255.29	92.98	200	1.39
62	278	111	Aluminum	{6,1,18}	<2,8,-1>	96.68	338.05	18.50	207	1.23
63	279	111	Aluminum	{5,-1,-15}	<2,-9,1>	80.58	156.57	161.94	218	1.53
64	280	111	Aluminum	{1,20,7}	<9,-1,2>	177.95	166.31	70.95	206	1.01
65	281	111	Aluminum	{18,1,-6}	<-1,8,-2>	92.19	345.25	108.28	186	2.43
66	282	111	Aluminum	{17,-9,7}	<5,12,3>	62.25	13.02	69.52	172	0.80
67	283	111	Aluminum	{17,-7,-9}	<5,-3,12>	67.02	92.83	115.86	225	0.77
68	284	111	Aluminum	{11,-5,-6}	<5,-3,12>	66.42	92.80	115.83	217	1.19
69	285	111	Aluminum	{6,15,-8}	<2,4,9>	157.11	91.75	116.17	201	0.98
70	286	111	Aluminum	{5,12,-6}	<3,5,12>	157.12	92.62	115.69	216	0.81
71	287	111	Aluminum	{4,10,-5}	<2,4,9>	157.71	92.22	115.76	217	1.15
72	288	111	Aluminum	{10,-5,4}	<4,9,2>	62.49	12.57	70.19	217	0.84
73	289	111	Aluminum	{12,-5,-6}	<5,-3,12>	66.80	92.70	115.58	219	1.09
74	290	111	Aluminum	{7,17,-9}	<2,4,9>	156.88	92.05	115.88	222	1.35
75	291	111	Aluminum	{12,-5,-6}	<5,-3,12>	66.85	92.49	115.51	218	1.04
76	292	111	Aluminum	{14,-7,6}	<5,12,3>	62.56	13.43	68.93	187	1.05
77	293	111	Aluminum	{10,-5,4}	<6,14,3>	62.45	12.88	70.32	180	0.81
78	294	111	No Solution						165	0.00
79	295	111	Aluminum	{12,-6,5}	<5,12,3>	62.50	13.54	69.11	172	1.03
80	296	111	Aluminum	{4,10,-5}	<2,4,9>	157.70	92.38	115.61	207	0.93
81	297	111	Aluminum	{10,-4,-5}	<4,-2,9>	67.69	92.32	115.57	193	1.91
82	298	111	Aluminum	{17,-9,7}	<5,12,3>	62.34	13.53	69.28	210	0.85
83	299	111	Aluminum	{4,10,-5}	<3,5,12>	157.86	92.86	115.71	223	0.86
84	300	111	Aluminum	{14,-7,6}	<5,12,3>	62.38	13.61	69.14	222	0.84