Princeton/BaBar/TNDC-96-52

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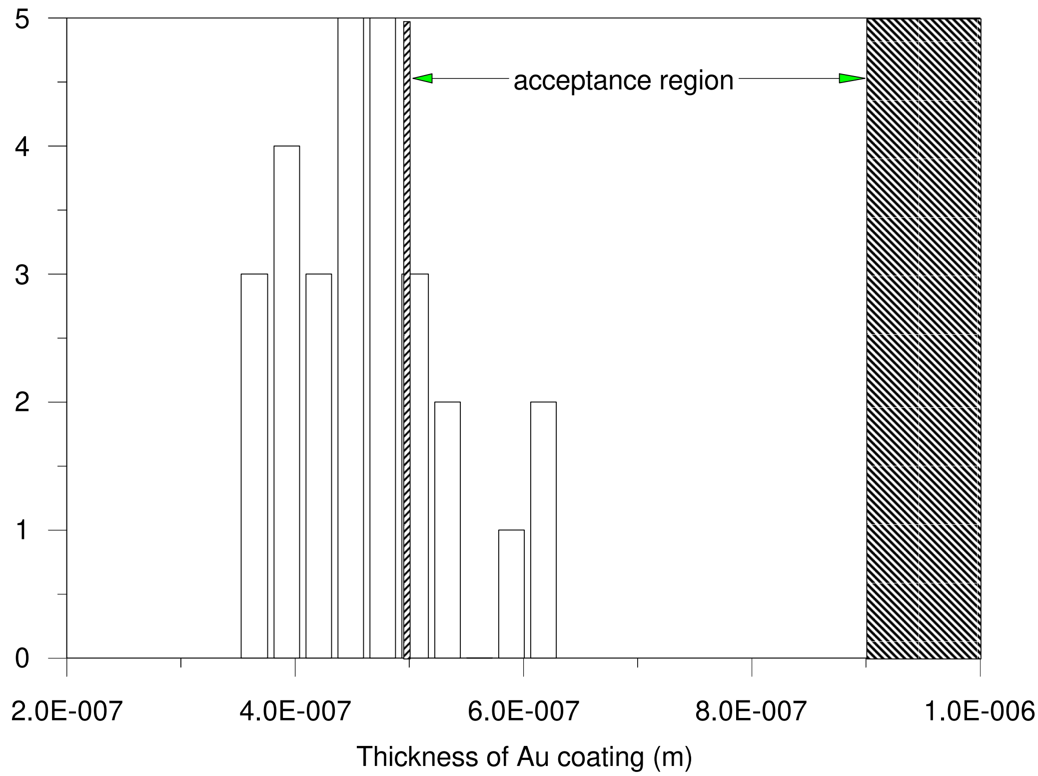
Update on Wire Quality Control

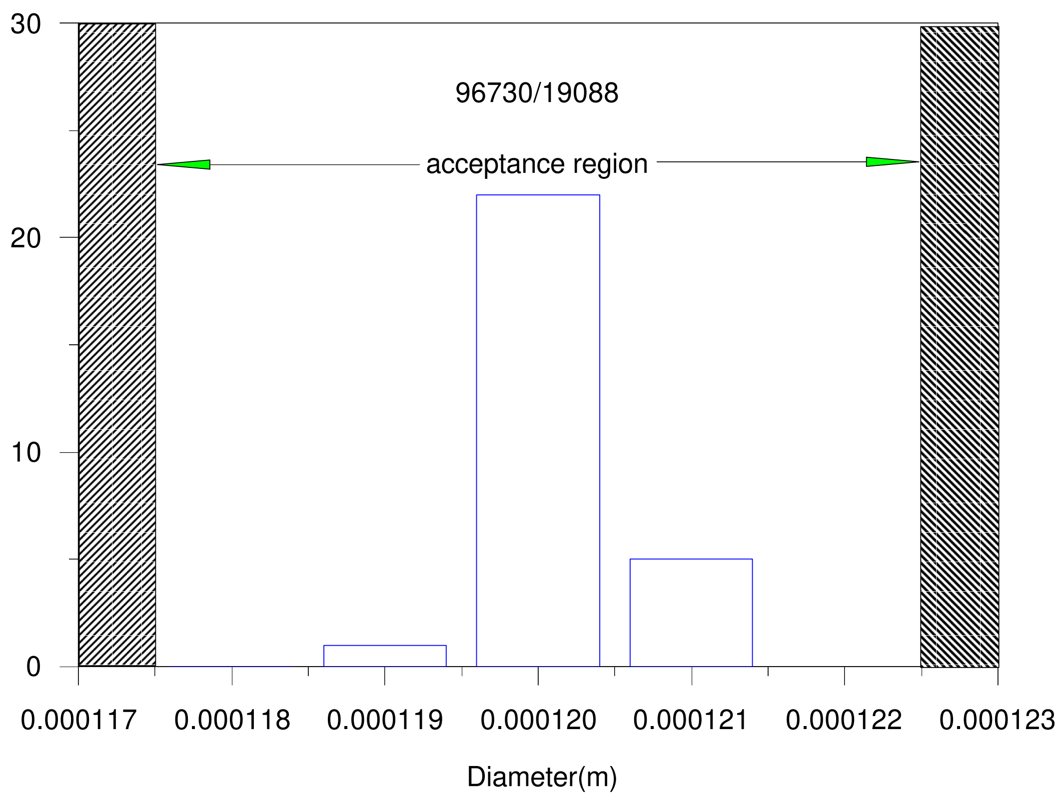
1 The First 28 Spools of 120-μm Aluminum Wire

1

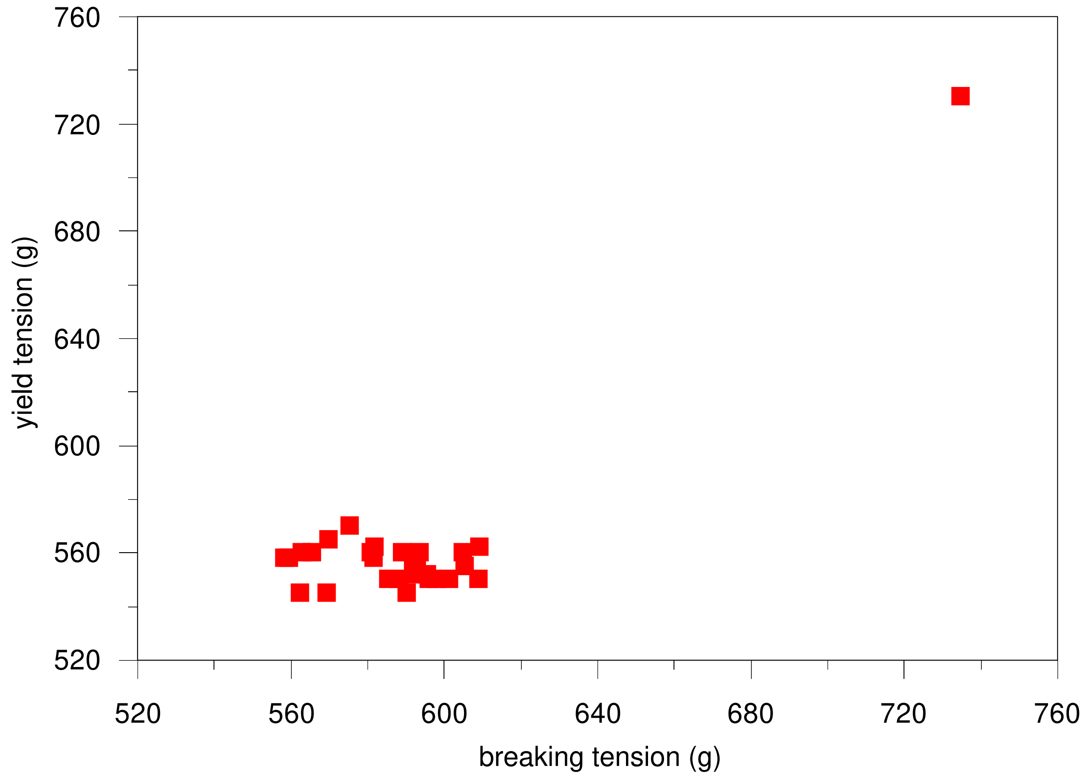
	diameter(m)	Spool_#	Young's(GPa)	mg/m	Au_thk(m)	Break_GT_(g)	yield_(g)	length(ft)
1	1.214E-004	1	64.26	33.49	3.58E-007	575.5	570	1314
2	1.204E-004	2	66.06	33.54	4.52E-007	559.5	558	1524
3	1.204E-004	3	65.70	33.49	4.44E-007	582.0	562	1196
4	1.204E-004	4	64.64	32.90	3.50E-007	558.3	558	2933
5	1.204E-004	5	65.16	33.63	4.66E-007	590.3	545	2909
6	1.204E-004	6	65.06	33.72	4.81E-007	592.1	555	2500
7	1.204E-004	7	65.31	33.59	4.60E-007	601.3	550	2050
8	1.193E-004	8	66.80	33.33	5.05E-007	569.4	545	3000
9	1.204E-004	9	66.64	33.16	3.92E-007	597.9	550	2960
10	1.204E-004	10	63.88	33.30	4.14E-007	596.2	550	2970
11	1.204E-004	11	65.61	34.67	6.32E-007	609.2	562	2940
12	1.204E-004	12	64.85	34.47	6.00E-007	563.0	560	2300
13	1.204E-004	13	65.07	33.77	4.89E-007	609.0	550	2589
14	1.204E-004	14	63.82	33.16	3.92E-007	592.5	552	2150
15	1.204E-004	15	66.99	33.85	5.01E-007	734.8	730	2638
16	1.214E-004	16	64.77	33.53	3.64E-007	565.6	560	2701
17	1.204E-004	17	65.55	34.66	6.30E-007	570.0	565	2960
18	1.214E-004	18	65.59	34.56	5.27E-007	581.0	560	2961
19	1.204E-004	19	65.30	33.28	4.11E-007	604.9	560	1207
20	1.204E-004	20	65.71	33.55	4.54E-007	593.0	555	1612
21	1.204E-004	21	65.08	33.65	4.70E-007	593.6	560	2680
22	1.204E-004	22	61.73	33.16	3.92E-007	562.6	545	2650
23	1.214E-004	23	65.01	33.97	4.34E-007	588.5	550	2700
24	1.204E-004	24	65.04	33.70	4.78E-007	605.5	555	1990
25	1.214E-004	25	64.98	33.70	3.91E-007	595.7	552	2950
26	1.204E-004	26	65.72	33.96	5.19E-007	581.6	558	2700
27	1.204E-004	27	65.68	33.46	4.39E-007	585.6	550	1701
28	1.204E-004	28	65.72	33.97	5.21E-007	589.1	560	2968
29								

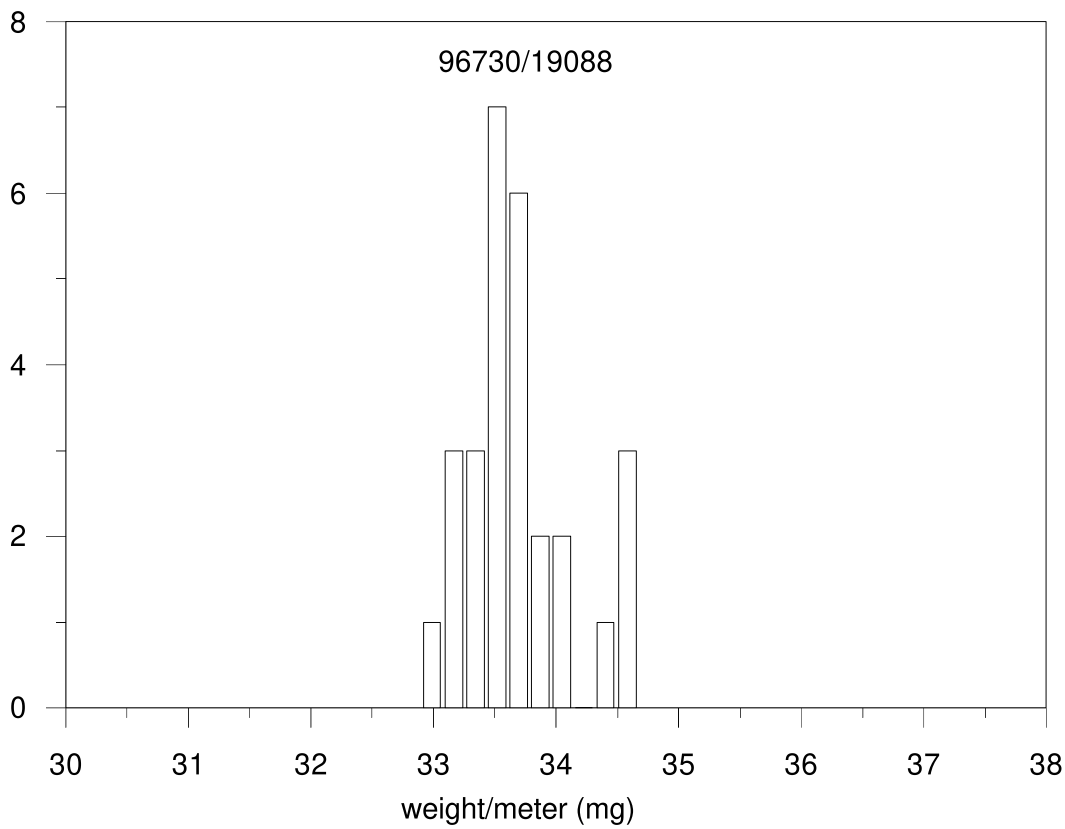


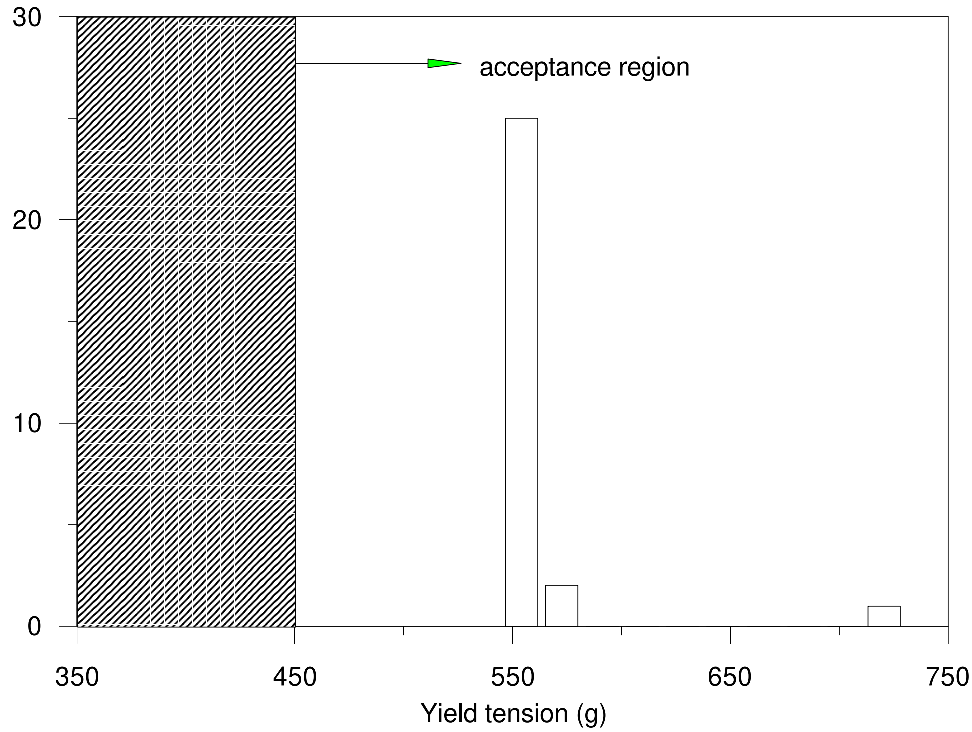
acceptance region
0
1
2
3
4
5
2.0E-007
4.0E-007
6.0E-007
8.0E-007
1.0E-006
Thickness of Au coating (m)

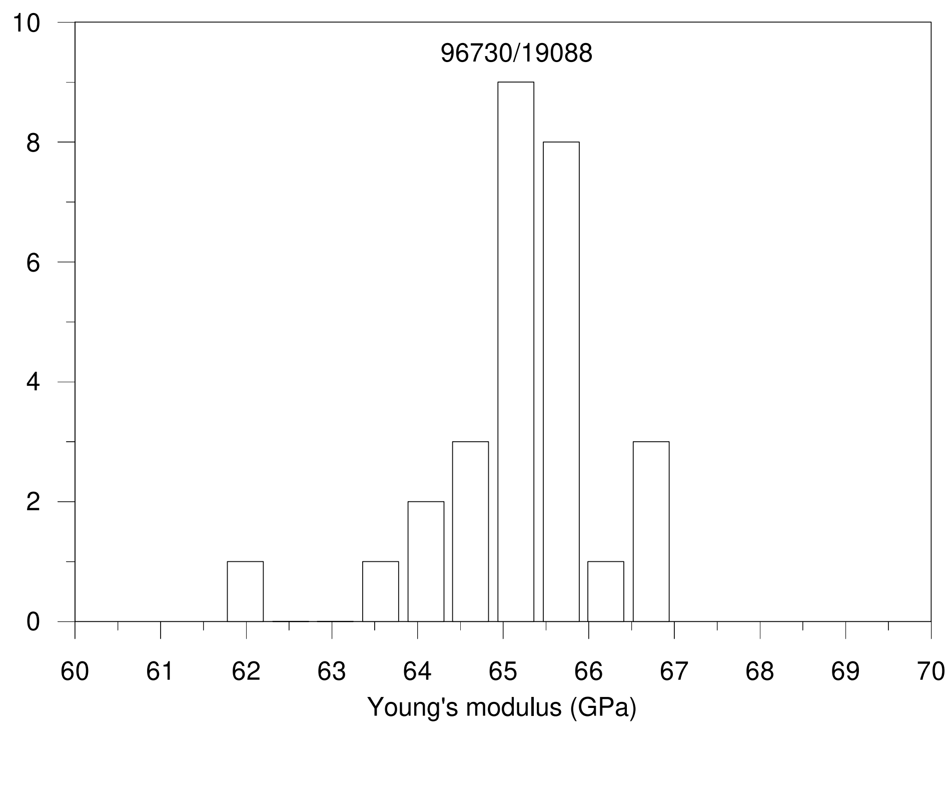


96730/19088
acceptance region
0
10
20
30
0.000117
0.000118
0.000119
0.000120
0.000121
0.000122
0.000123
Diameter(m)


760
720
680
640
600
560
520
yield tension (g)
520
560
600
640
680
720
760
breaking tension (g)


96730/19088
8
6
4
2
0
30
31
32
33
34
35
36
37
38
weight/meter (mg)


30
20
10
0
acceptance region
350
450
550
650
750
Yield tension (g)


10
8
6
4
2
0
96730/19088
60
61
62
63
64
65
66
67
68
69
70
Young's modulus (GPa)

2 Tungsten Wire

Spool#	weight/m(mg)	diamter(m)	Young's)GPa)	yield(g)	break(g)
grade1,3%Re	6.04	1.9962e-005	375.926	375.9	125