- 2 AUG 2004

FIG. 1

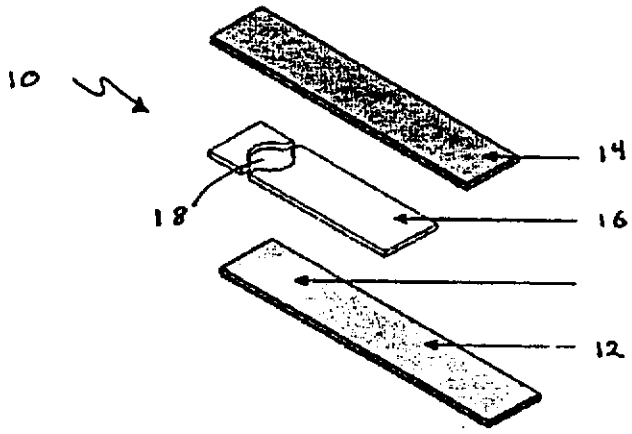


FIG. 2

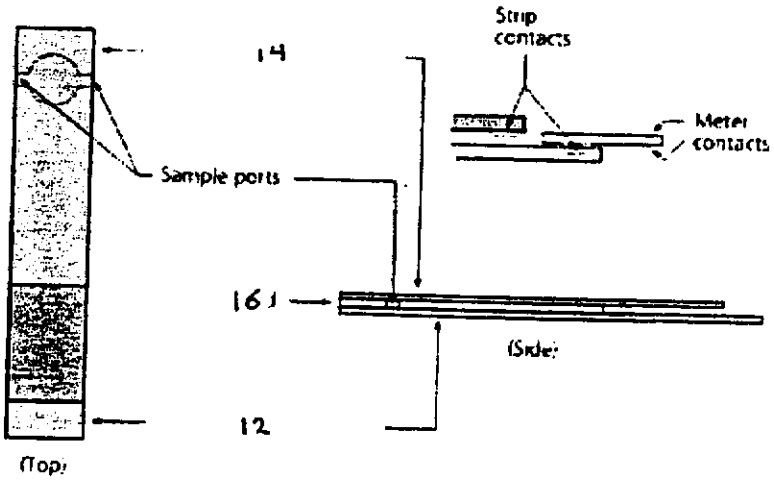


FIG. 3

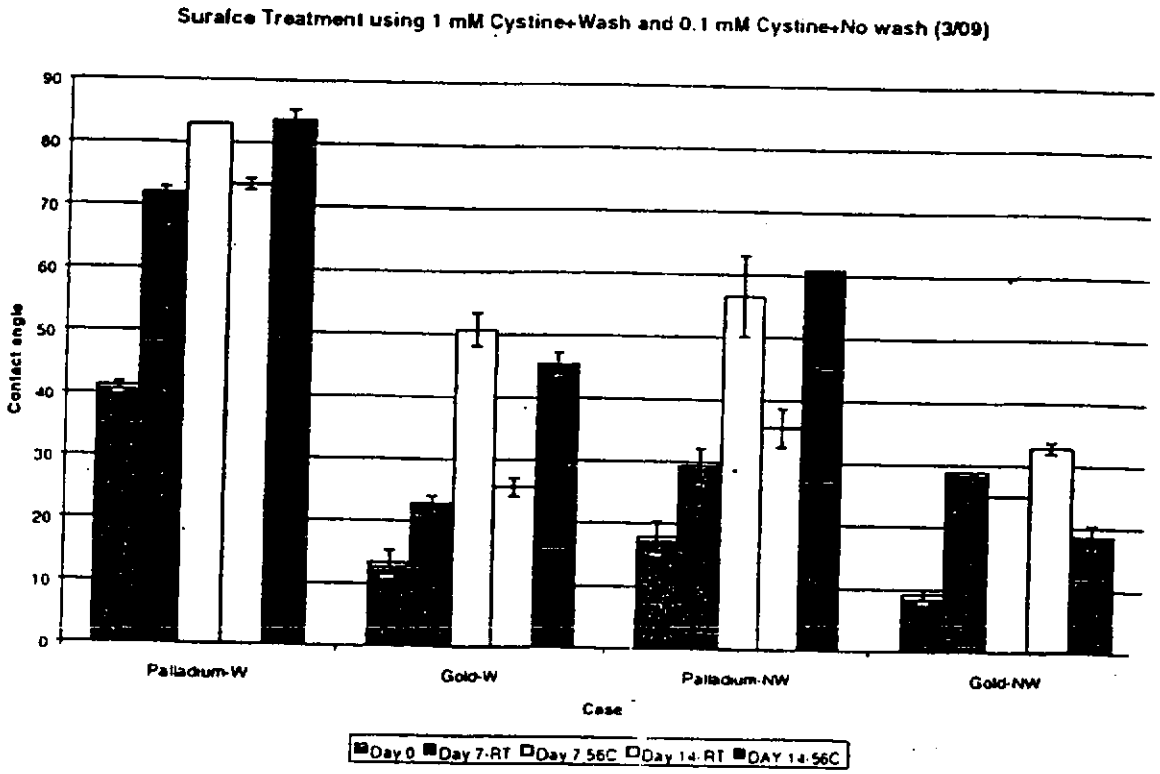

Suralce Treatment using 1 mM Cystine+Wash and 0.1 mM Cystine+No wash (3/09)
Contact angle
90
80
70
60
50
40
30
20
10
0
Palladium-W
Gold-W
Palladium-NW
Gold-NW
Case
Day 0 Day 7-RT Day 7 56C Day 14-RT DAY 14-56C

FIG. 4

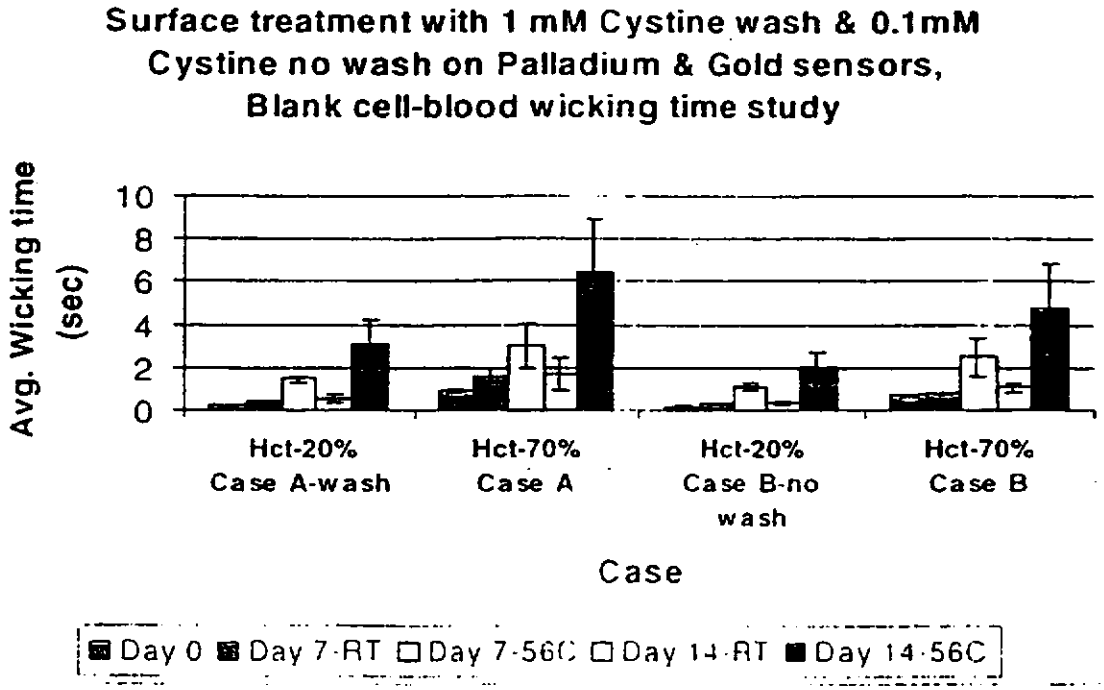

Surface treatment with 1 mM Cystine wash & 0.1mM Cystine no wash on Palladium & Gold sensors, Blank cell-blood wicking time study
Avg. Wicking time (sec)
10
8
6
4
2
0
Hct-20% Case A-wash
Hct-70% Case A
Hct-20% Case B-no wash
Hct-70% Case B
Case
Day 0 Day 7-RT Day 7-56C Day 14-RT Day 14-56C

FIG. 5A

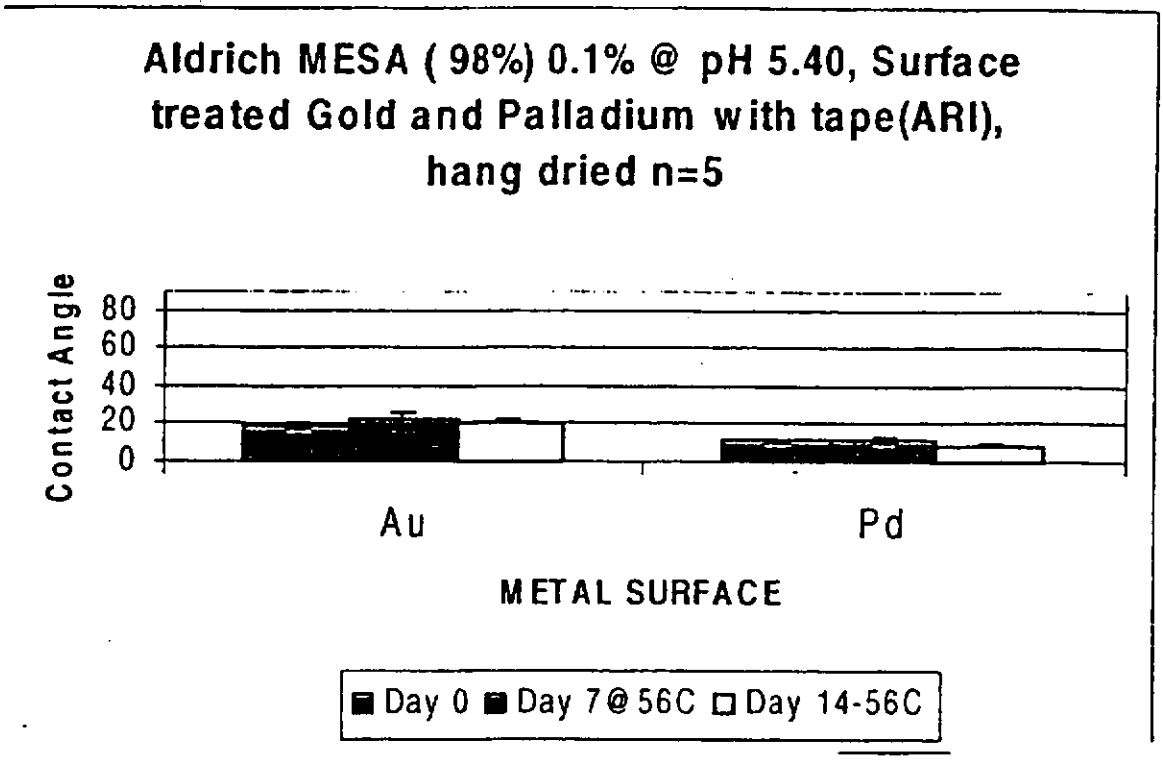

Aldrich MESA (98%) 0.1% @ pH 5.40, Surface treated Gold and Palladium with tape(ARI), hang dried n=5
Contact Angle
80
60
40
20
0
Au
Pd
METAL SURFACE
Day 0
Day 7@56C
Day 14-56C

FIG. 5B

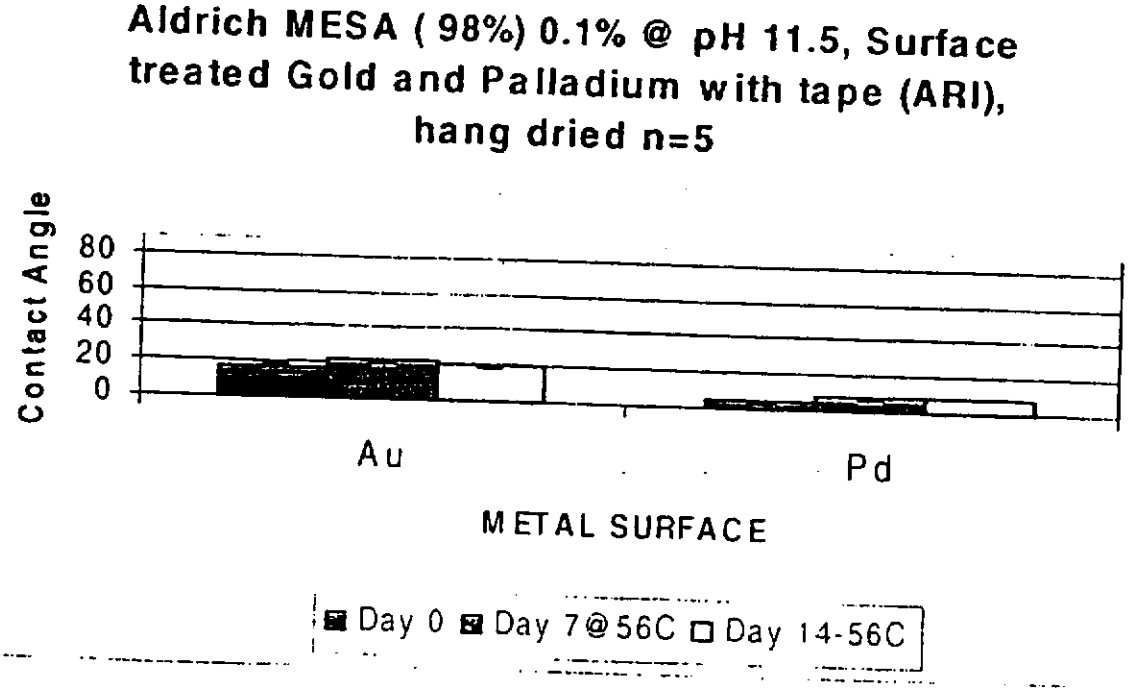

Aldrich MESA (98%) 0.1% @ pH 11.5, Surface treated Gold and Palladium with tape (ARI), hang dried n=5
Contact Angle
80
60
40
20
0
Au
Pd
METAL SURFACE
Day 0
Day 7@56C
Day 14-56C

FIG. 6

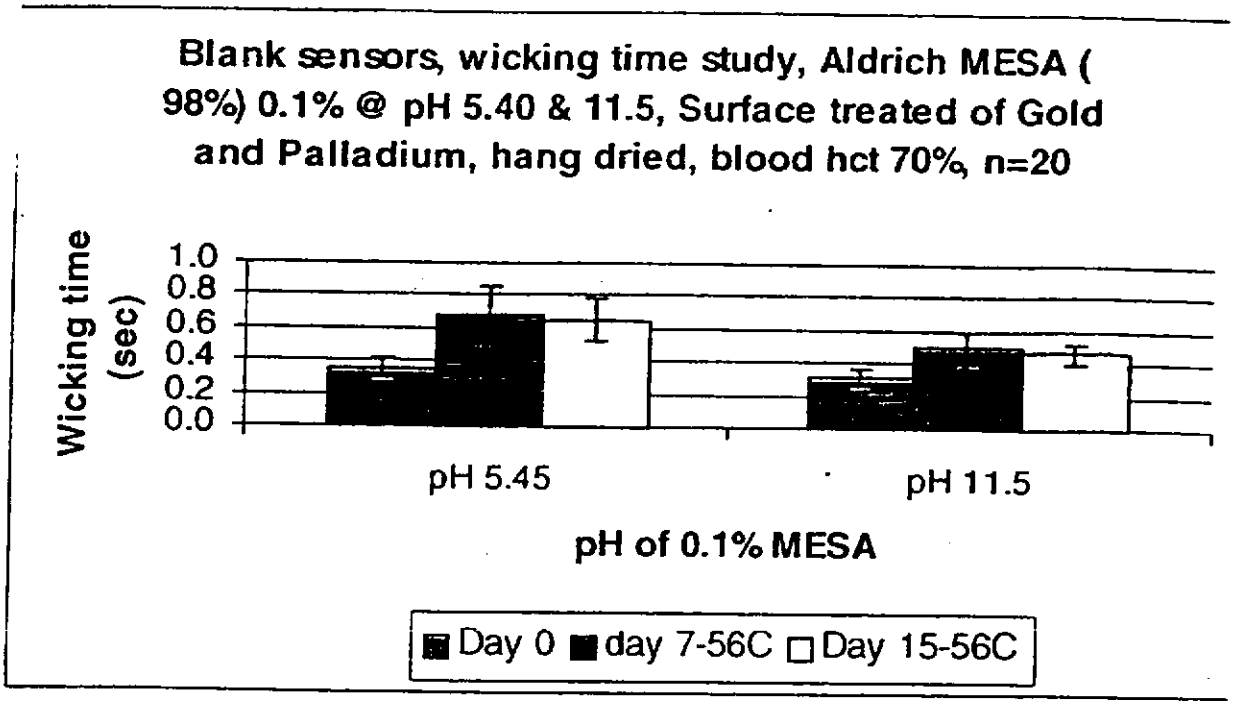
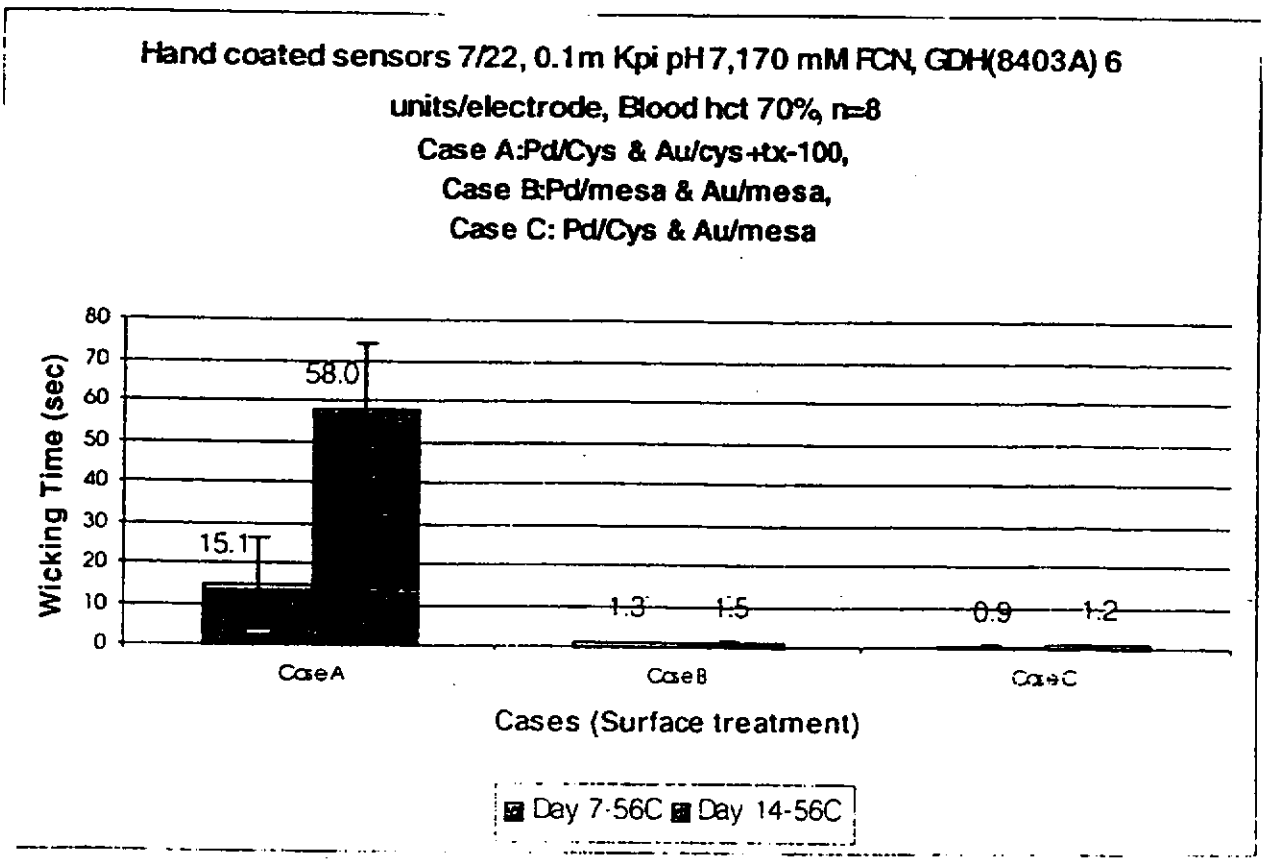

Blank sensors, wicking time study, Aldrich MESA (98%) 0.1% @ pH 5.40 & 11.5, Surface treated of Gold and Palladium, hang dried, blood hct 70%, n=20
Wicking time (sec)
1.0
0.8
0.6
0.4
0.2
0.0
pH 5.45
pH 11.5
pH of 0.1% MESA
Day 0
day 7-56C
Day 15-56C

FIG. 7


Hand coated sensors 7/22, 0.1m Kpi pH 7,170 mM FCN, GDH(8403A) 6 units/electrode, Blood hct 70%, n=8
Case A:Pd/Cys & Au/cys+tx-100,
Case B:Pd/mesa & Au/mesa,
Case C: Pd/Cys & Au/mesa
Wicking Time (sec)
80
70
60
50
40
30
20
10
0
58.0
15.1
1.3
1.5
0.9
1.2
CaseA
CaseB
CaseC
Cases (Surface treatment)
Day 7-56C
Day 14-56C