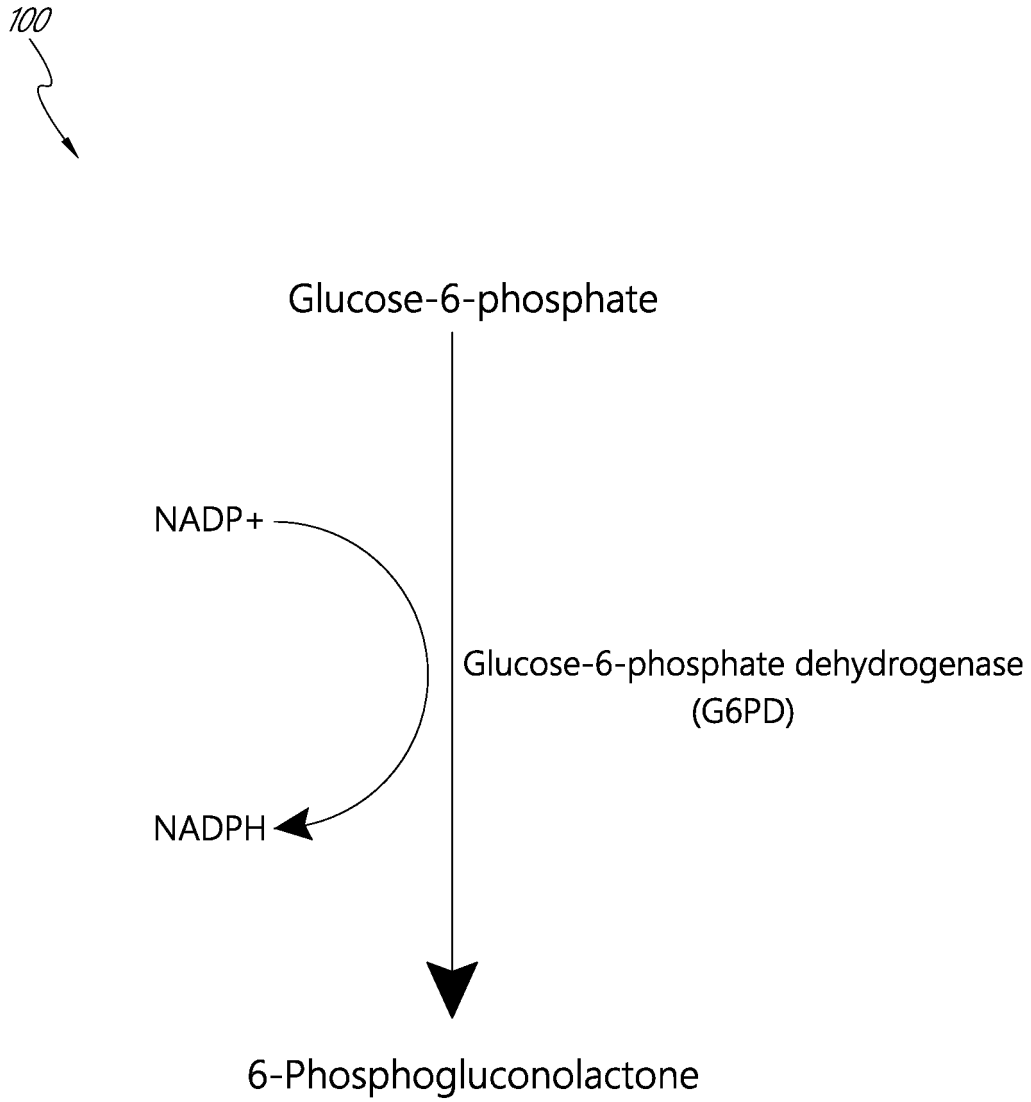

100
Glucose-6-phosphate
NADP+
Glucose-6-phosphate dehydrogenase
(G6PD)
NADPH
6-Phosphogluconolactone

FIG. 1

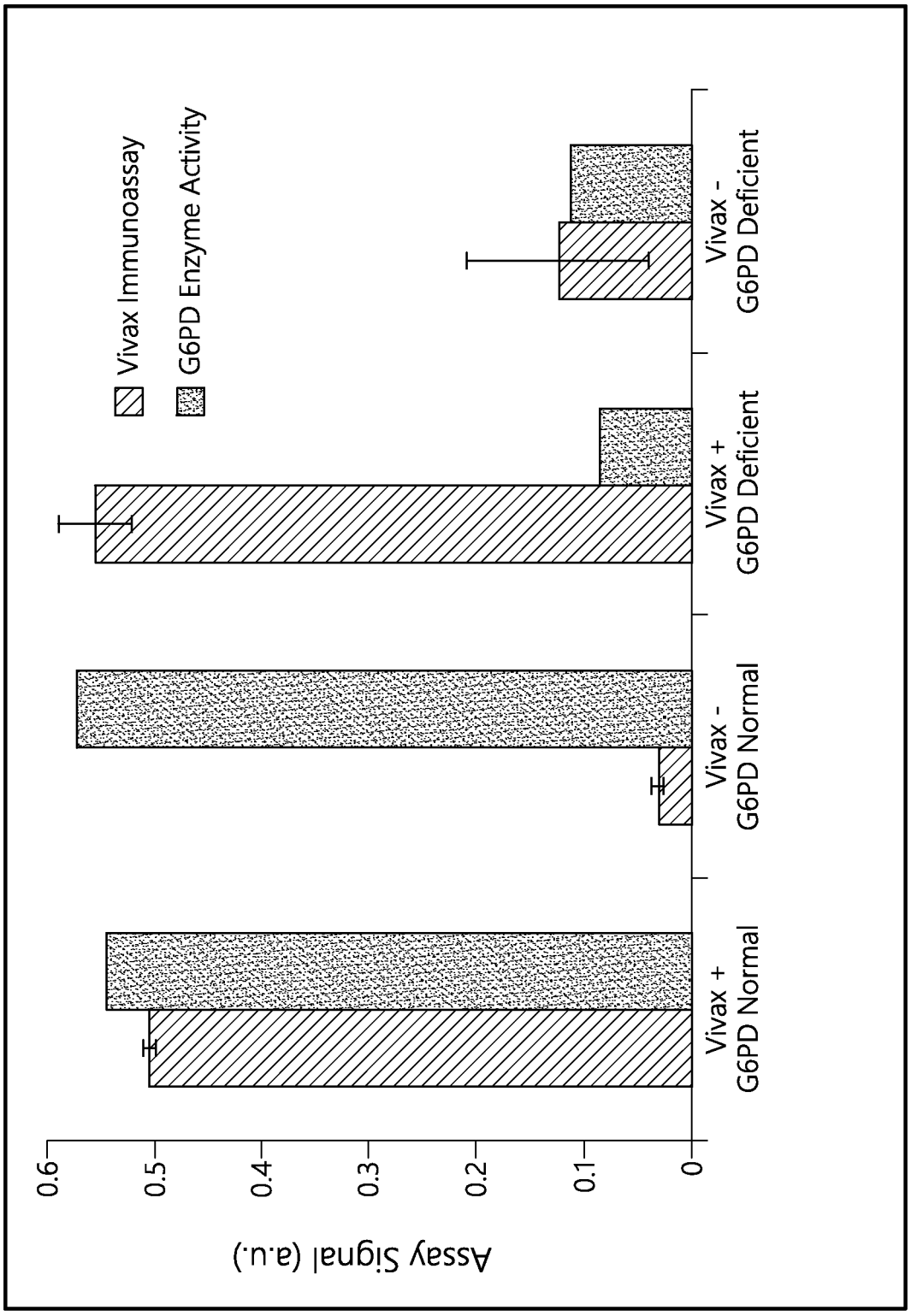

Assay Signal (a.u.)
0
0.1
0.2
0.3
0.4
0.5
0.6
Vivax Immunoassay
G6PD Enzyme Activity
Vivax + G6PD Normal
Vivax - G6PD Normal
Vivax + G6PD Deficient
Vivax - G6PD Deficient

FIG. 2

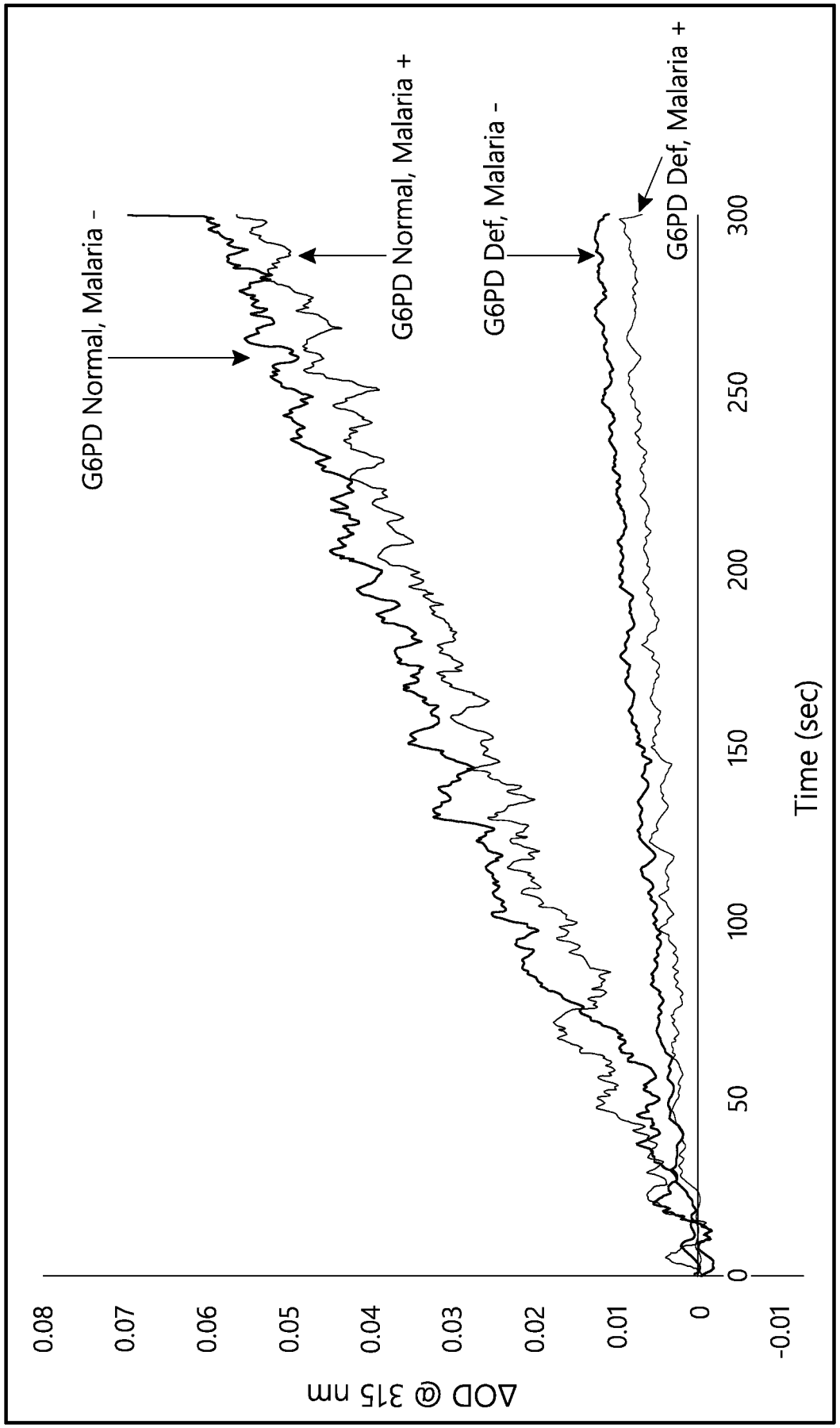

G6PD Normal, Malaria -
G6PD Normal, Malaria +
G6PD Def, Malaria -
G6PD Def, Malaria +
ΔOD @ 315 nm
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
0
50
100
150
200
250
300
Time (sec)

FIG. 3

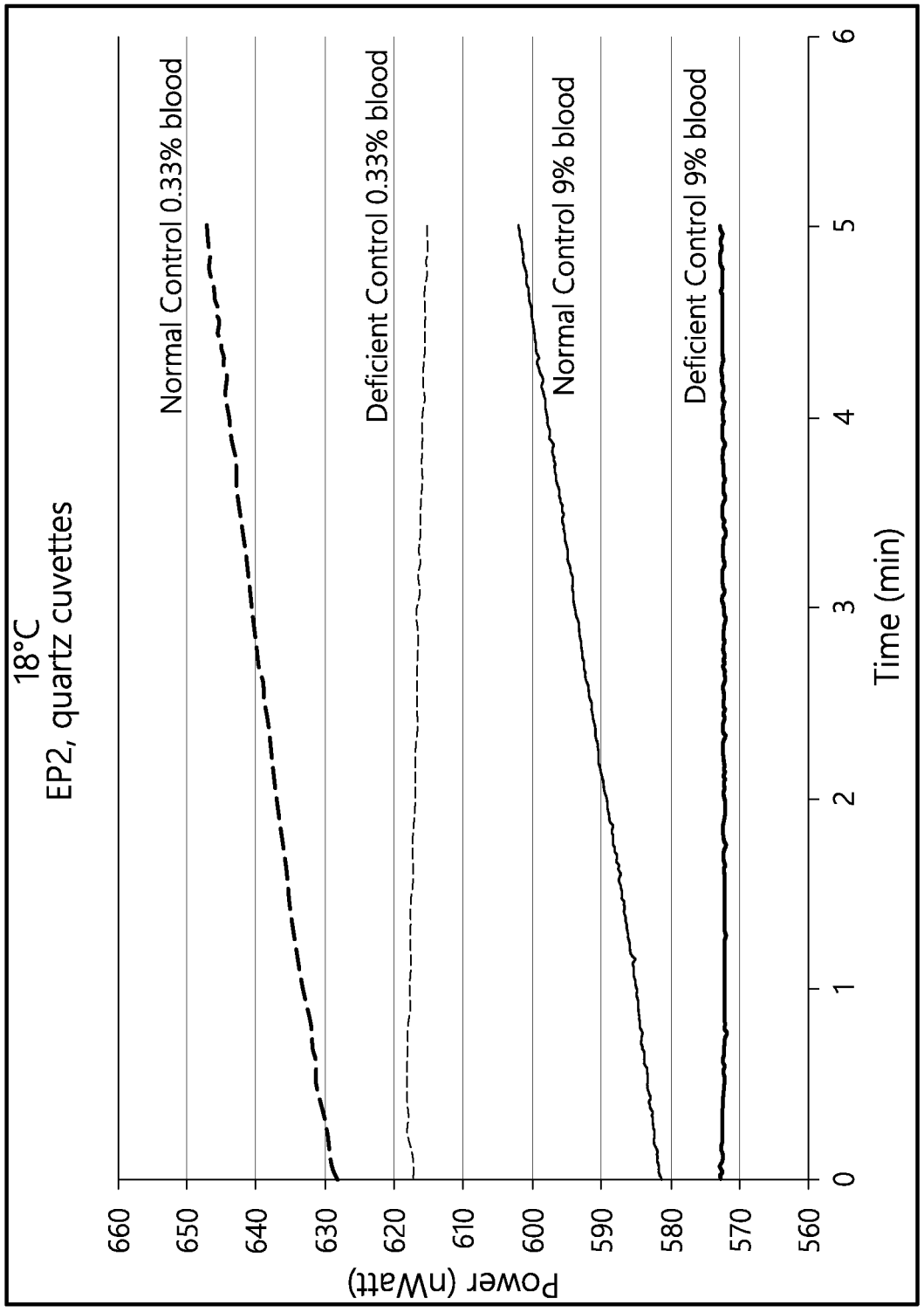

18°C
EP2, quartz cuvettes
Normal Control 0.33% blood
Deficient Control 0.33% blood
Normal Control 9% blood
Deficient Control 9% blood
Power (nWatt)
660
650
640
630
620
610
600
590
580
570
560
0
1
2
3
4
5
6
Time (min)

FIG. 4

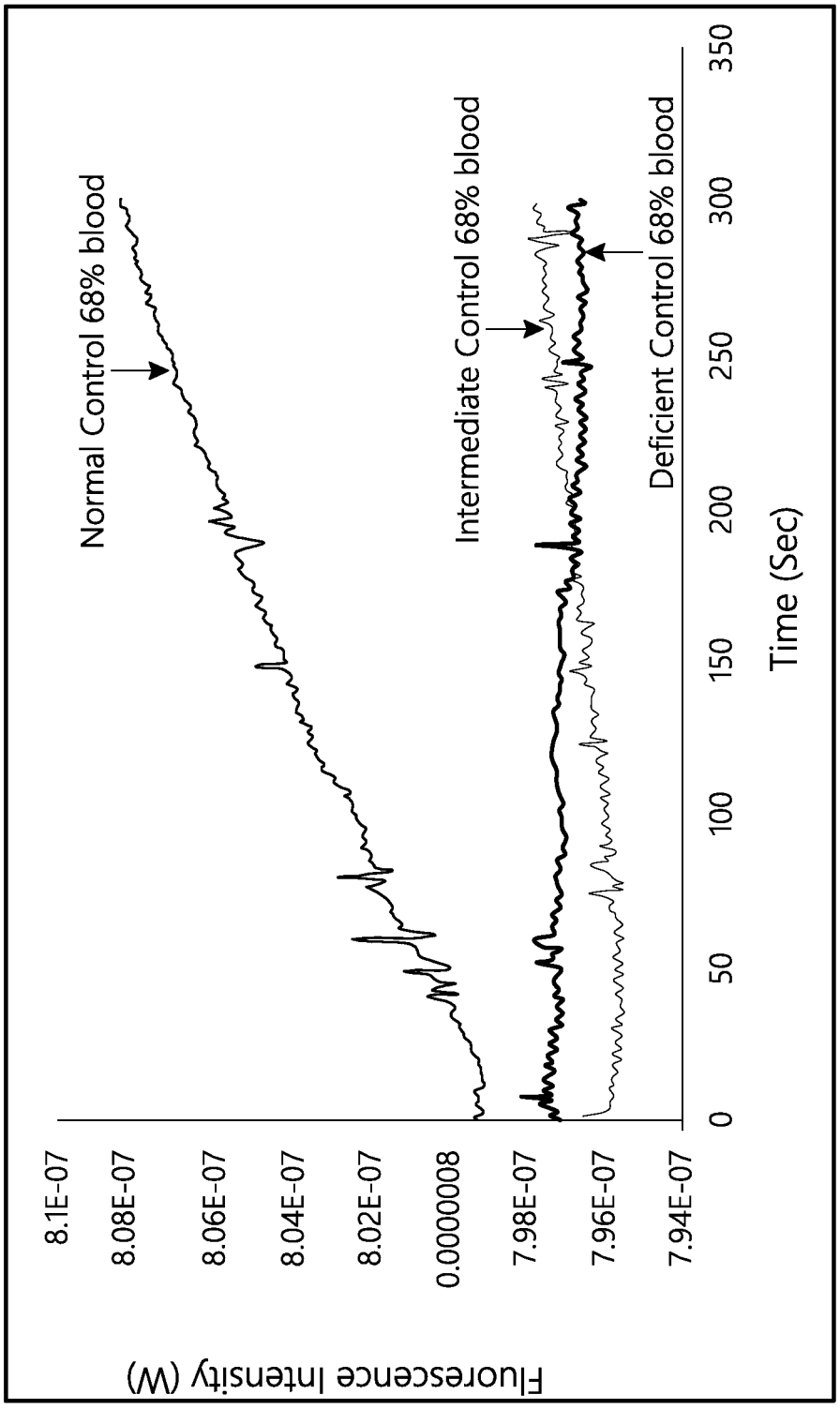

Fluorescence Intensity (W)
8.1E-07
8.08E-07
8.06E-07
8.04E-07
8.02E-07
0.0000008
7.98E-07
7.96E-07
7.94E-07
0
50
100
150
200
250
300
350
Time (Sec)
Normal Control 68% blood
Intermediate Control 68% blood
Deficient Control 68% blood

FIG. 5

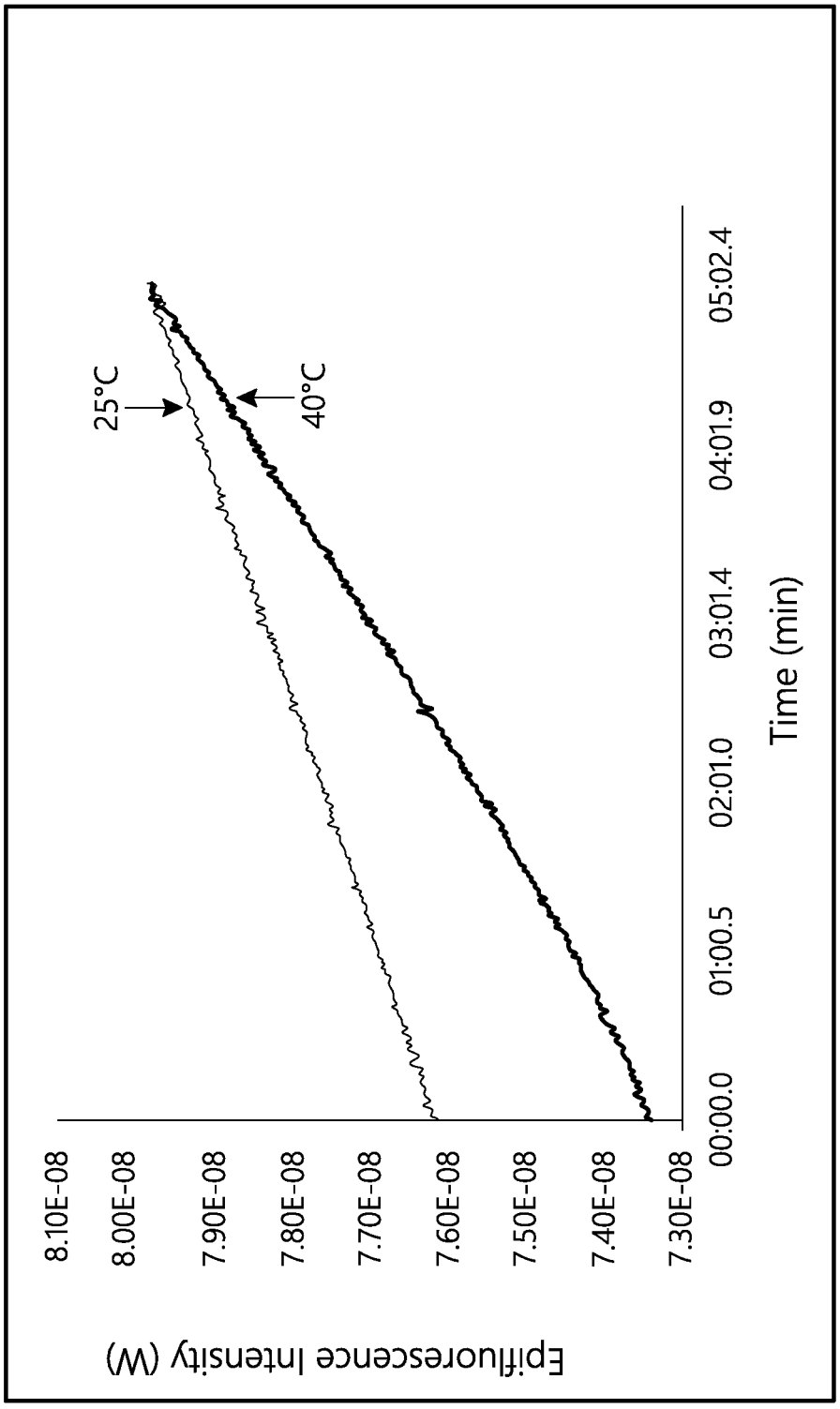

Epifluorescence Intensity (W)
8.10E-08
8.00E-08
7.90E-08
7.80E-08
7.70E-08
7.60E-08
7.50E-08
7.40E-08
7.30E-08
00:00.0
01:00.5
02:01.0
03:01.4
04:01.9
05:02.4
Time (min)
25°C
40°C

FIG. 6

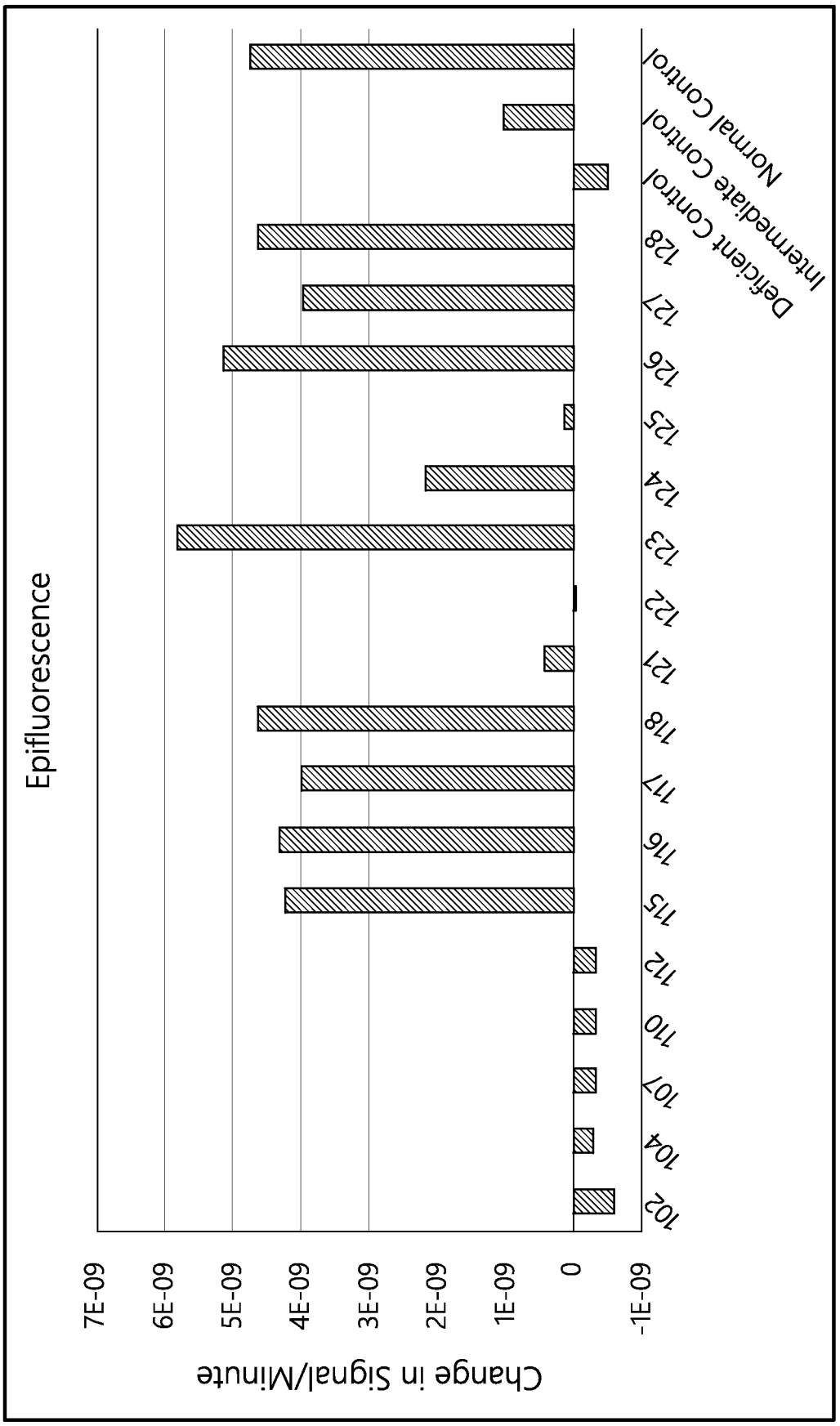

Epifluorescence
Change in Signal/Minute
7E-09
6E-09
5E-09
4E-09
3E-09
2E-09
1E-09
0
-1E-09
102
104
107
110
112
115
116
117
118
121
122
123
124
125
126
127
128
Deficient Control
Intermediate Control
Normal Control

FIG. 7A

Trinity
Change in Signal/Minute
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
102
104
107
110
112
115
116
117
118
121
122
123
124
125
126
127
128
Deficient Control
Intermediate Control
Normal Control

FIG. 7B

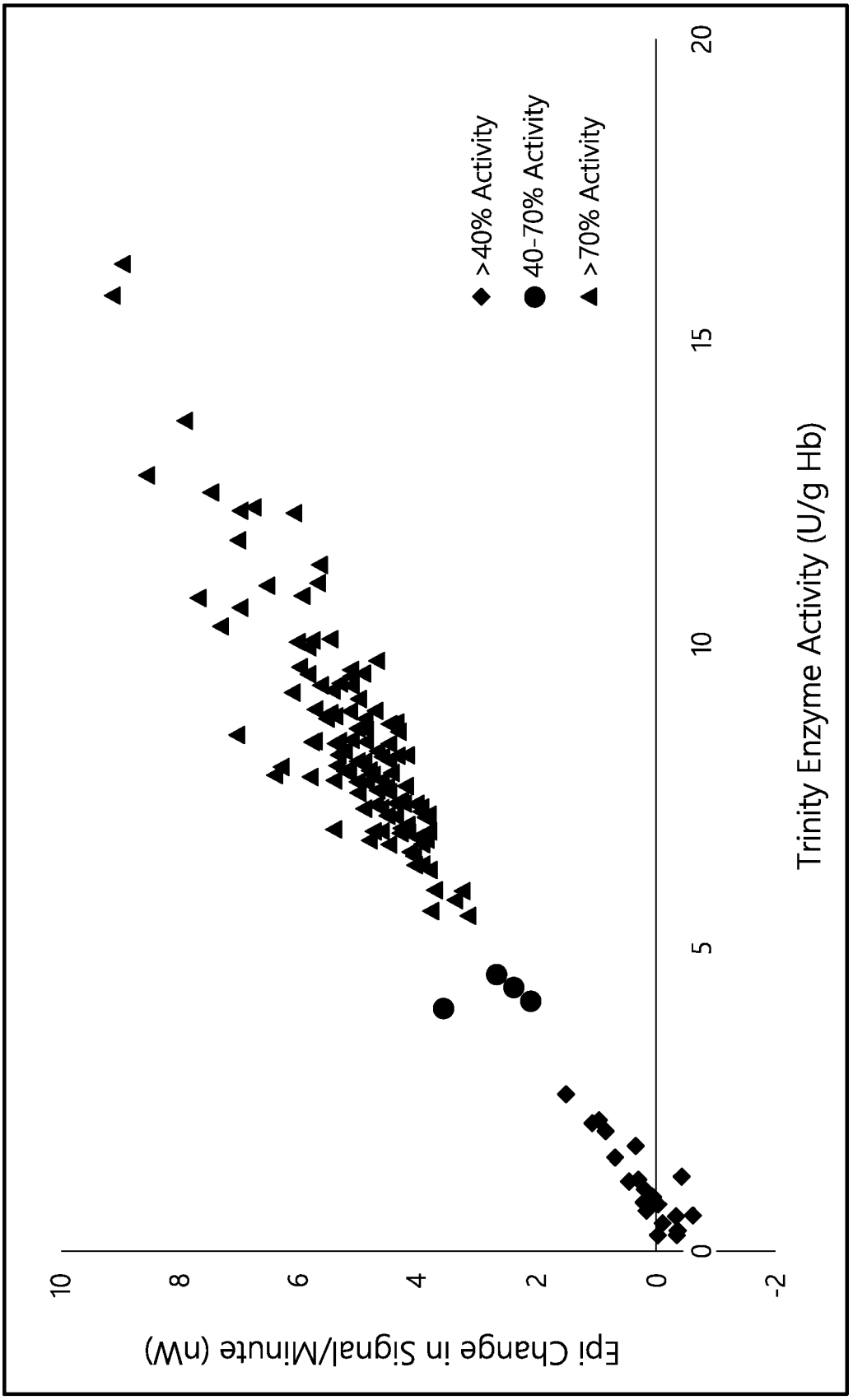

Epi Change in Signal/Minute (nW)
10
8
6
4
2
0
-2
0
5
10
15
20
Trinity Enzyme Activity (U/g Hb)
>40% Activity
40-70% Activity
>70% Activity

FIG. 8

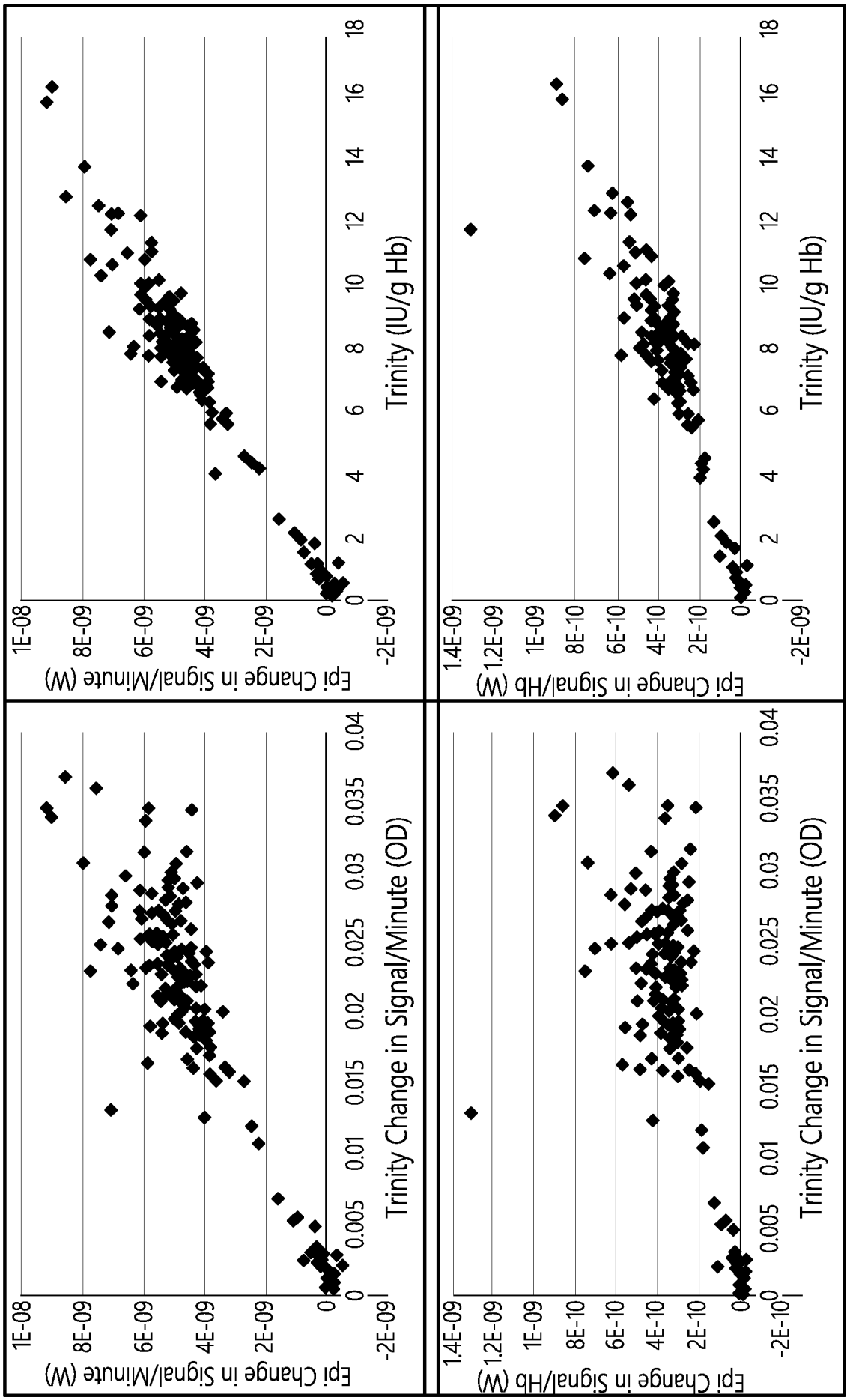

Epi Change in Signal/Minute (W)
1E-08
8E-09
6E-09
4E-09
2E-09
0
-2E-09
0
2
4
6
8
10
12
14
16
18
Trinity (IU/g Hb)
Epi Change in Signal/Hb (W)
1.4E-09
1.2E-09
1E-09
8E-10
6E-10
4E-10
2E-10
0
-2E-09
0
2
4
6
8
10
12
14
16
18
Trinity (IU/g Hb)
Epi Change in Signal/Minute (W)
1E-08
8E-09
6E-09
4E-09
2E-09
0
-2E-09
0
0.005
0.01
0.015
0.02
0.025
0.03
0.035
0.04
Trinity Change in Signal/Minute (OD)
Epi Change in Signal/Hb (W)
1.4E-09
1.2E-09
1E-09
8E-10
6E-10
4E-10
2E-10
0
-2E-10
0
0.005
0.01
0.015
0.02
0.025
0.03
0.035
0.04
Trinity Change in Signal/Minute (OD)

FIG. 9