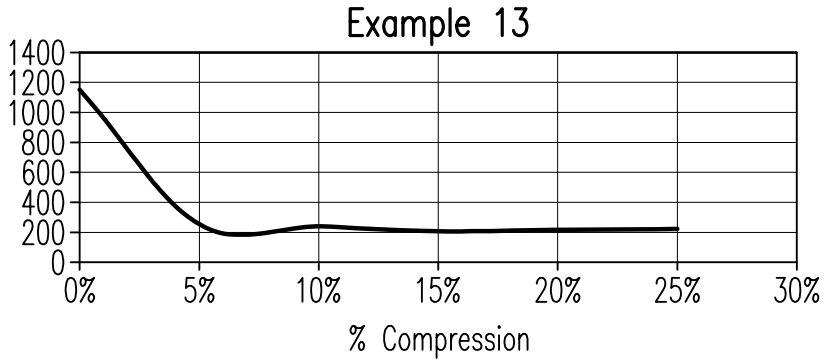
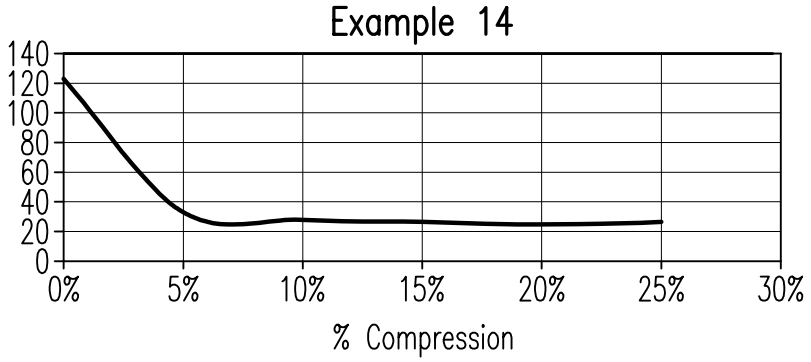
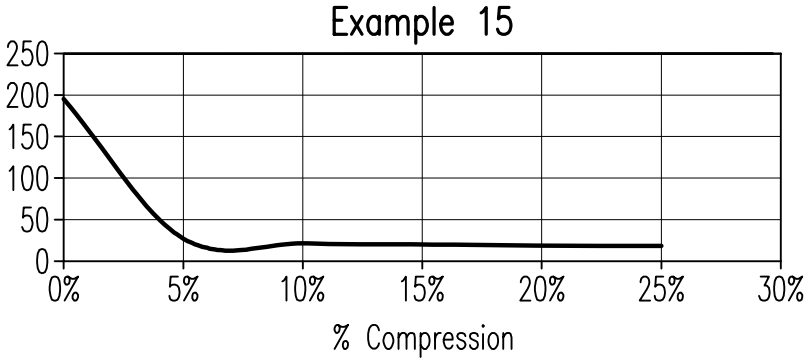
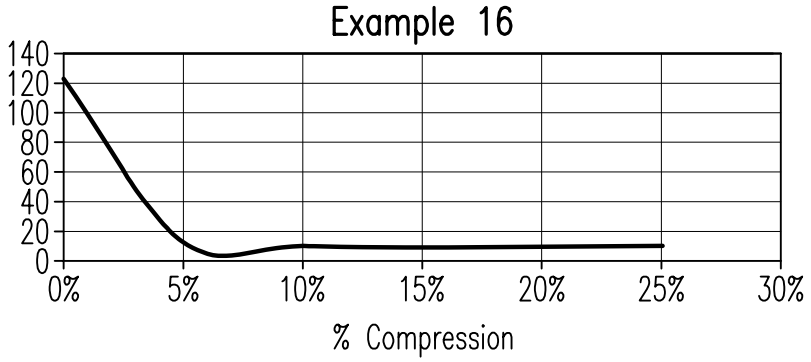
Particle Counts
80
60
40
20
0
Comparative Sample
Example 1
Example 2
Example 3
Example 4
Example 5
Example 6
Example 7
0
5000
10000
15000
20000
Time (sec)

FIG.1


Example 13
1400
1200
1000
800
600
400
200
0
0%
5%
10%
15%
20%
25%
30%
% Compression


Example 14
140
120
100
80
60
40
20
0
0%
5%
10%
15%
20%
25%
30%
% Compression


Example 15
250
200
150
100
50
0
0%
5%
10%
15%
20%
25%
30%
% Compression


Example 16
140
120
100
80
60
40
20
0
0%
5%
10%
15%
20%
25%
30%
% Compression

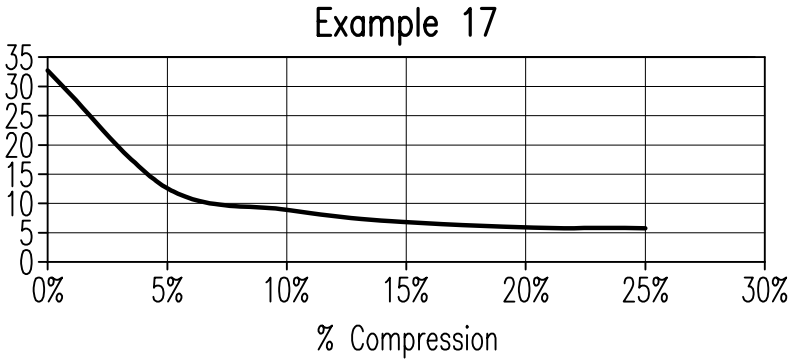

Example 17
35
30
25
20
15
10
5
0
0%
5%
10%
15%
20%
25%
30%
% Compression

FIG.2

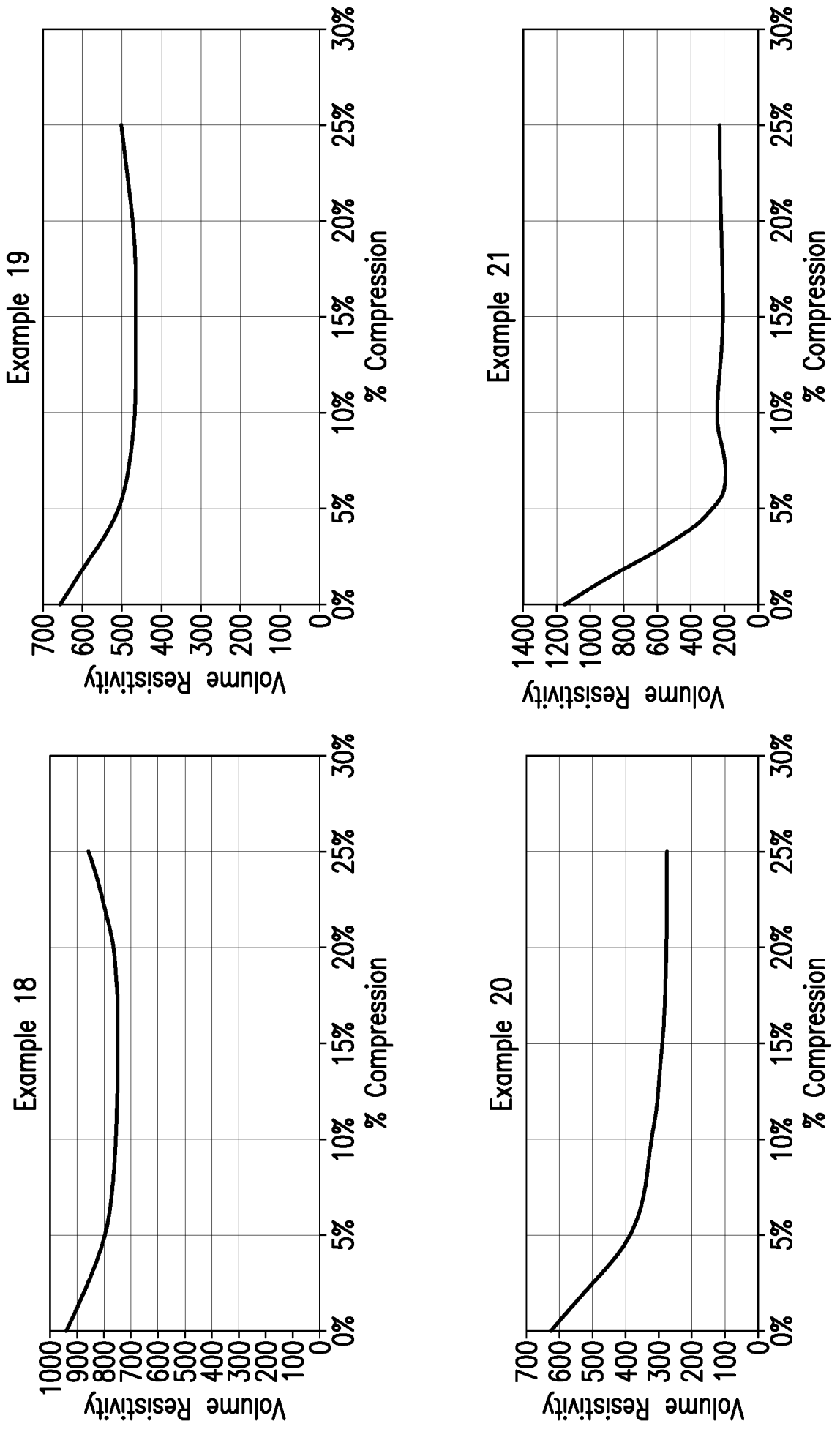
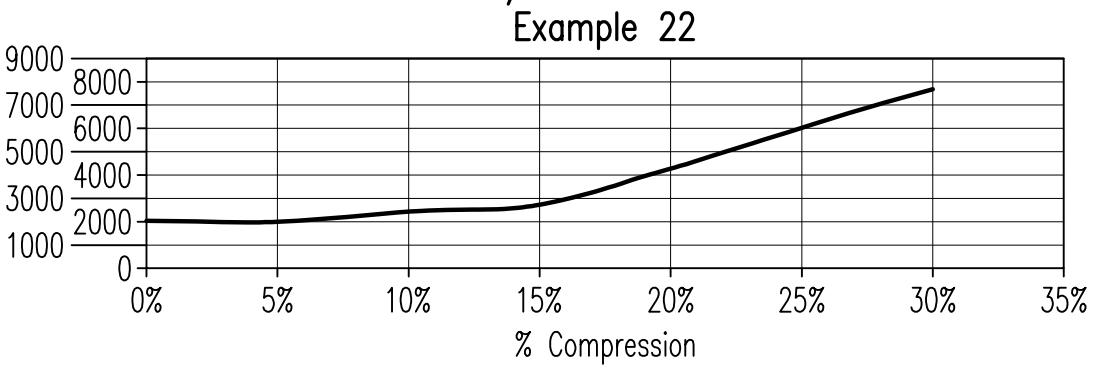
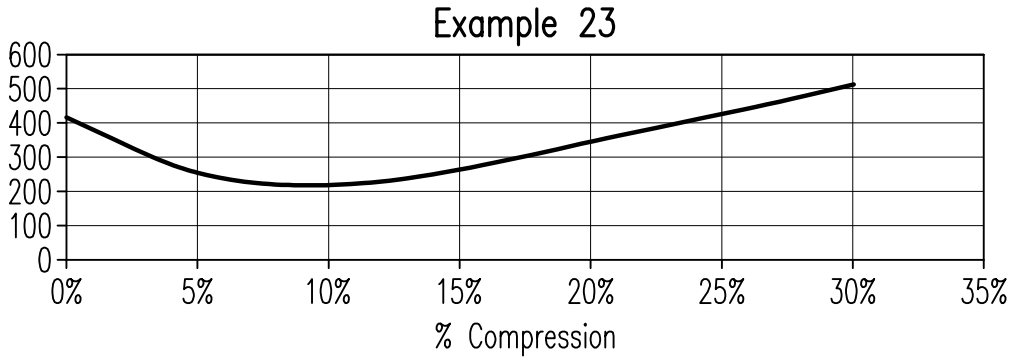
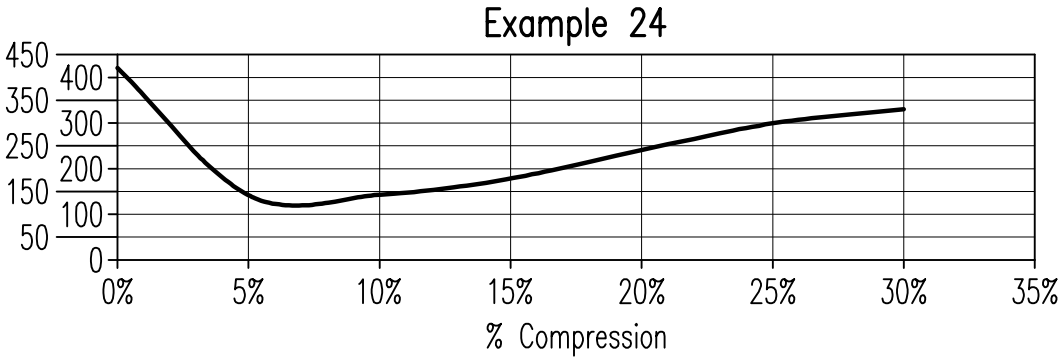
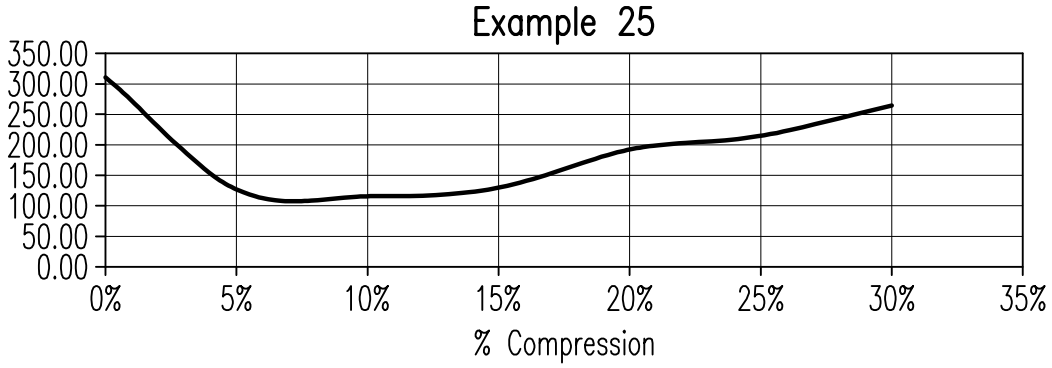

Example 19
Volume Resistivity
% Compression
Example 21
Volume Resistivity
% Compression
Example 18
Volume Resistivity
% Compression
Example 20
Volume Resistivity
% Compression

FIG.3


Example 22
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0%
5%
10%
15%
20%
25%
30%
35%
% Compression


Example 23
600
500
400
300
200
100
0
0%
5%
10%
15%
20%
25%
30%
35%
% Compression


Example 24
450
400
350
300
250
200
150
100
50
0
0%
5%
10%
15%
20%
25%
30%
35%
% Compression


Example 25
350.00
300.00
250.00
200.00
150.00
100.00
50.00
0.00
0%
5%
10%
15%
20%
25%
30%
35%
% Compression

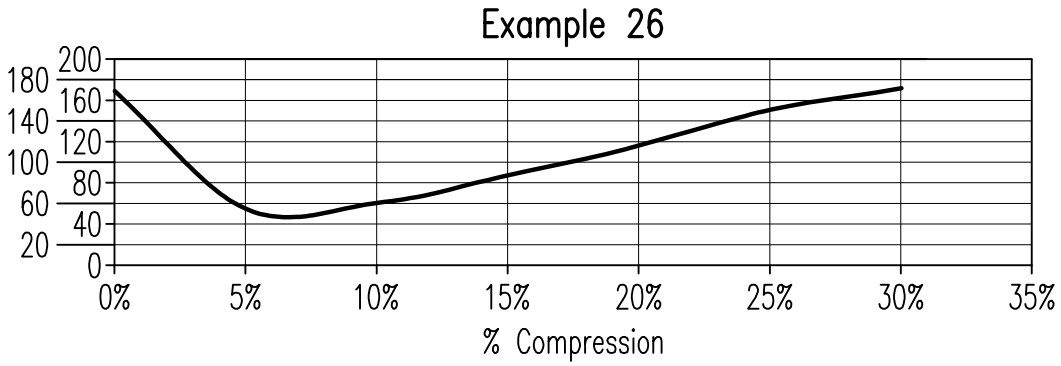

Example 26
200
180
160
140
120
100
80
60
40
20
0
0%
5%
10%
15%
20%
25%
30%
35%
% Compression

FIG.4

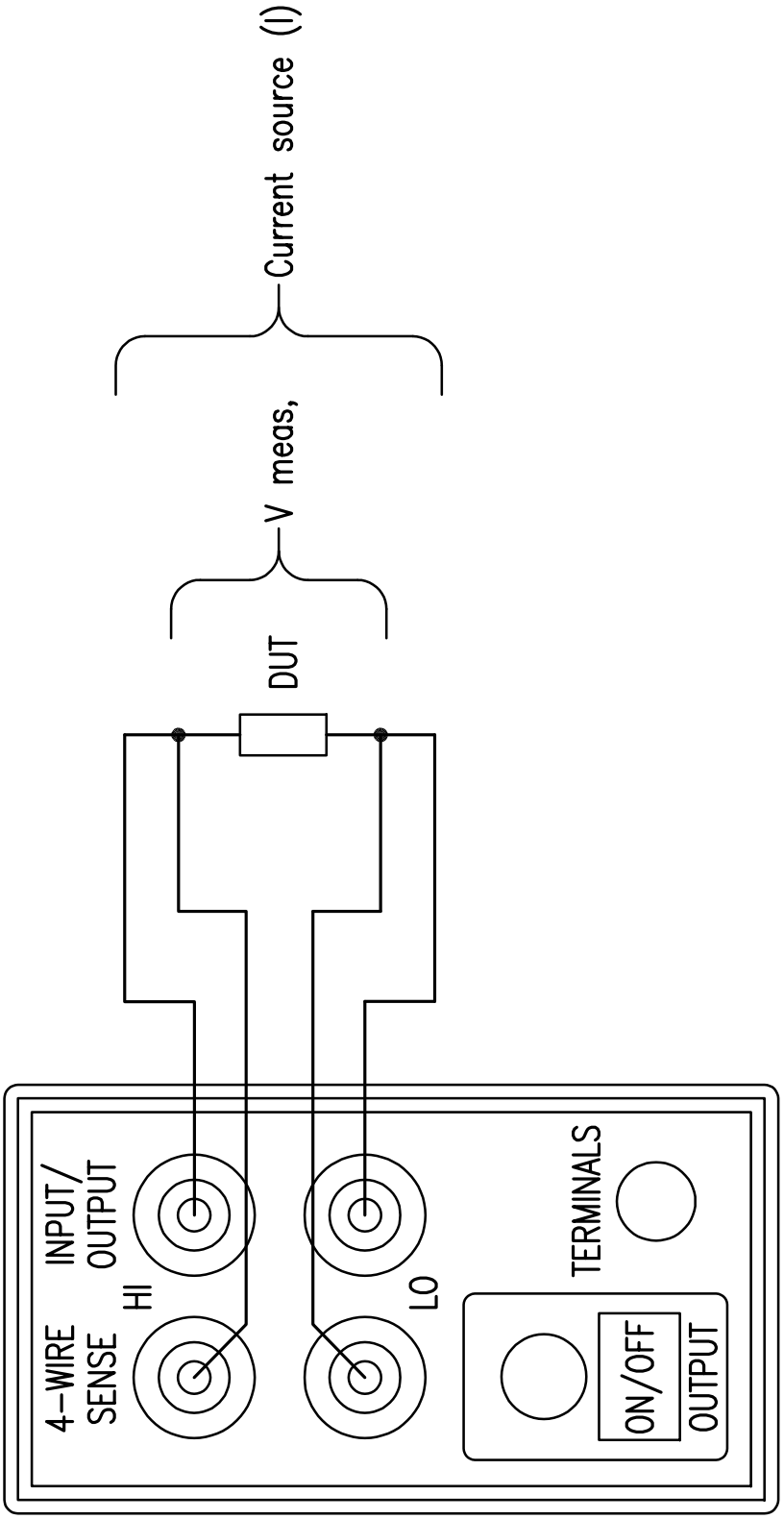

Current source (I)
V meas,
DUT
4-WIRE SENSE
INPUT/ OUTPUT HI
LO
TERMINALS
ON/OFF OUTPUT

FIG.5

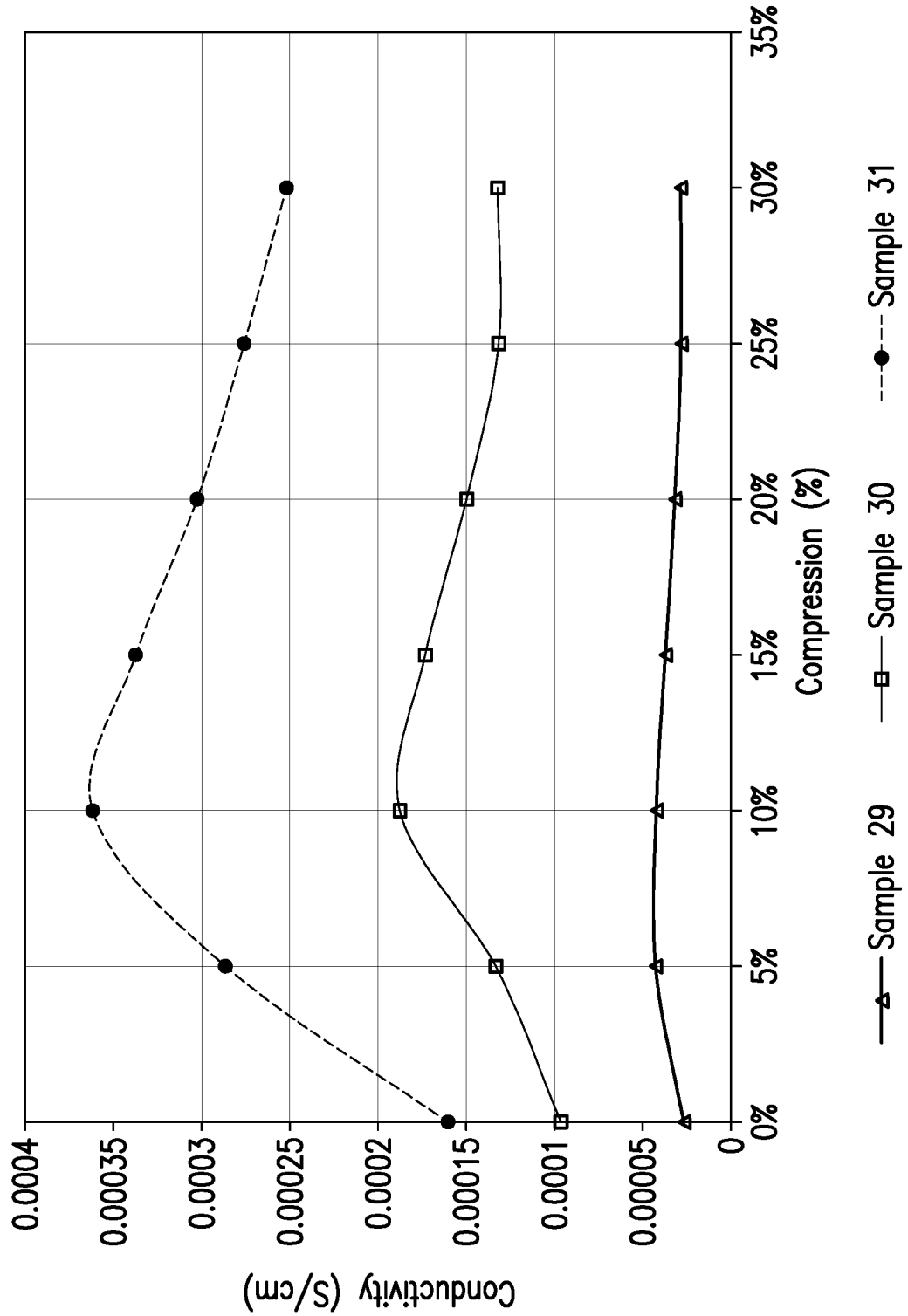

Conductivity (S/cm)
0.0004
0.00035
0.0003
0.00025
0.0002
0.00015
0.0001
0.00005
0
0%
5%
10%
15%
20%
25%
30%
35%
Compression (%)
Sample 29
Sample 30
Sample 31

FIG.6

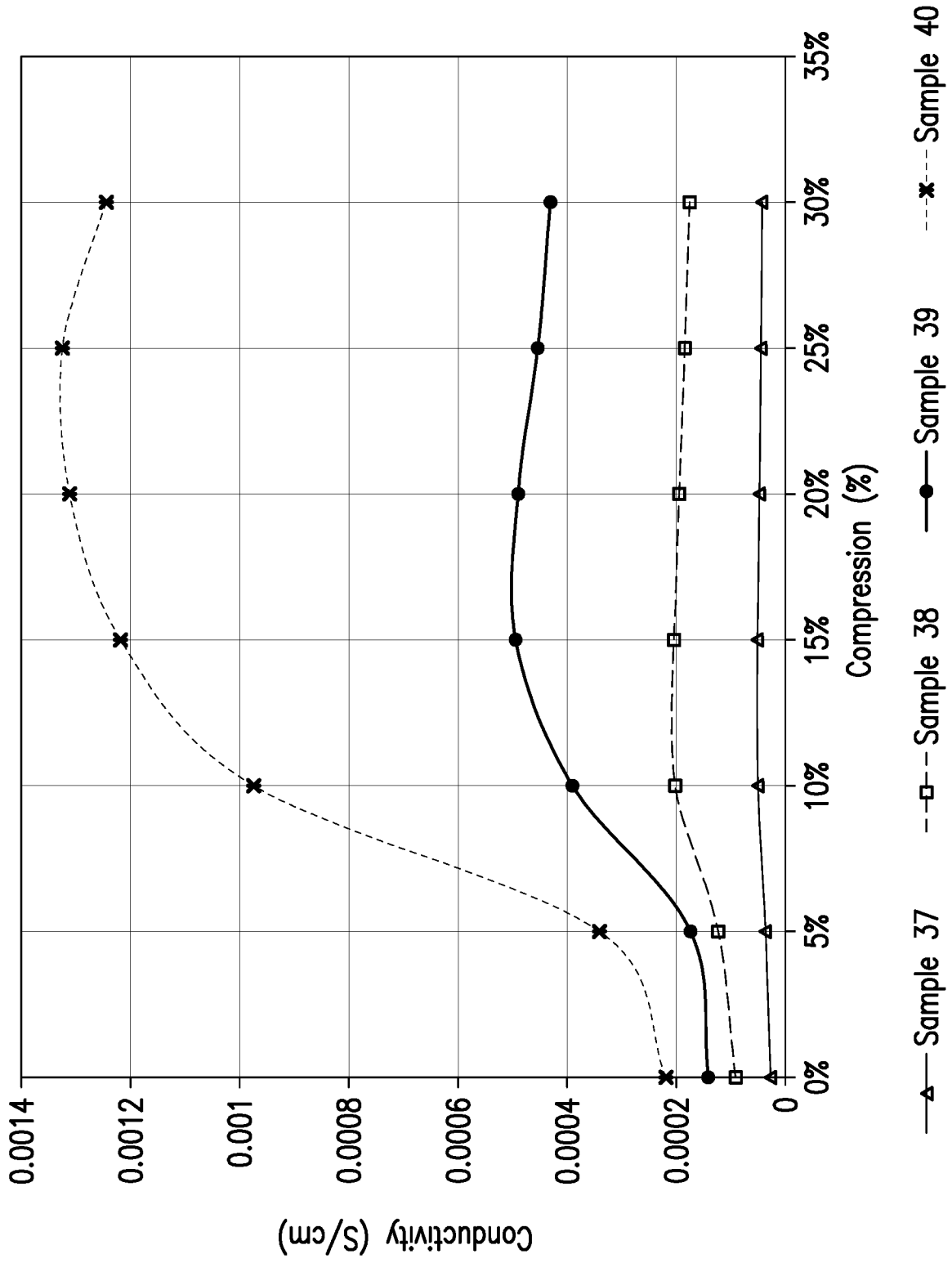

Conductivity (S/cm)
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0%
5%
10%
15%
20%
25%
30%
35%
Compression (%)
Sample 37
Sample 38
Sample 39
Sample 40

FIG.7

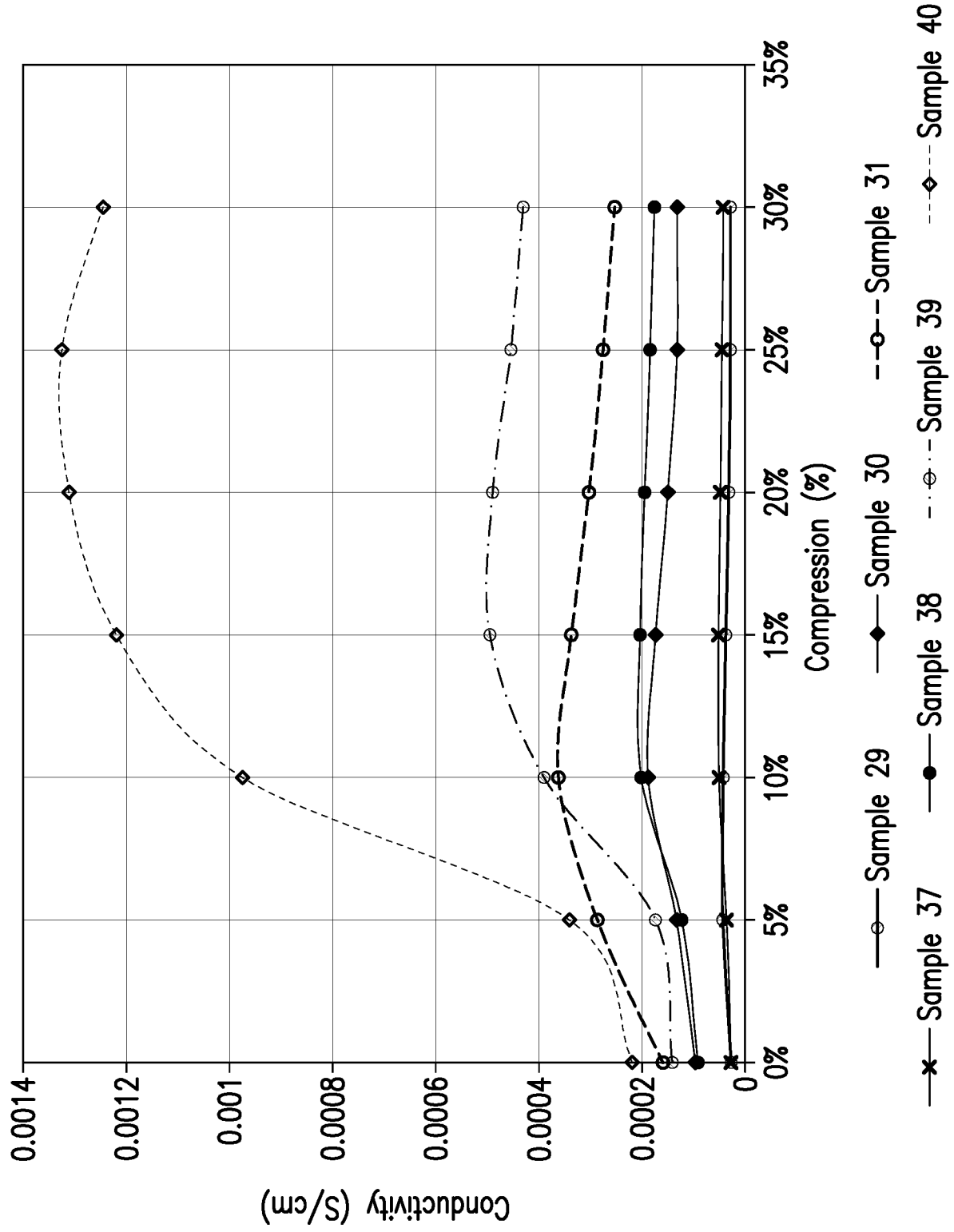

Conductivity (S/cm)
0.0014
0.0012
0.001
0.0008
0.0006
0.0004
0.0002
0
0%
5%
10%
15%
20%
25%
30%
35%
Compression (%)
Sample 29
Sample 30
Sample 31
Sample 37
Sample 38
Sample 39
Sample 40

FIG.8

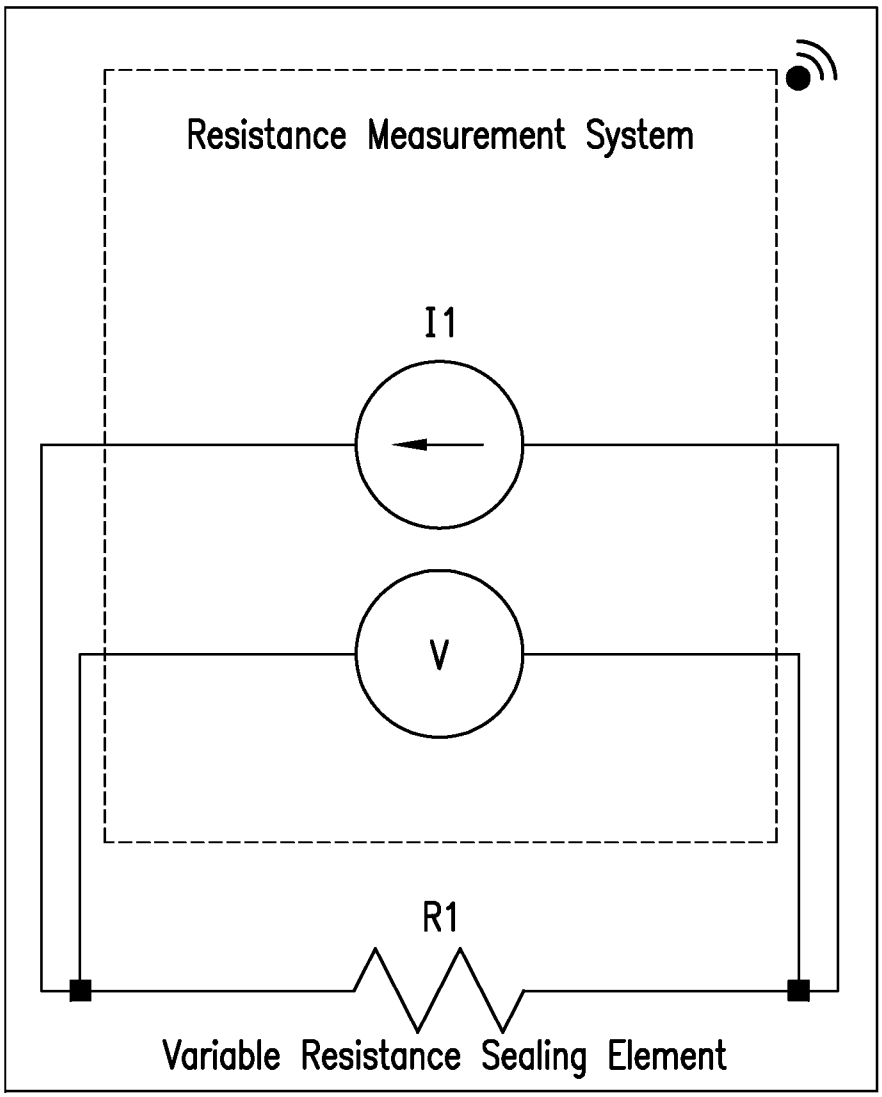

Resistance Measurement System
I1
V
R1
Variable Resistance Sealing Element

FIG.9