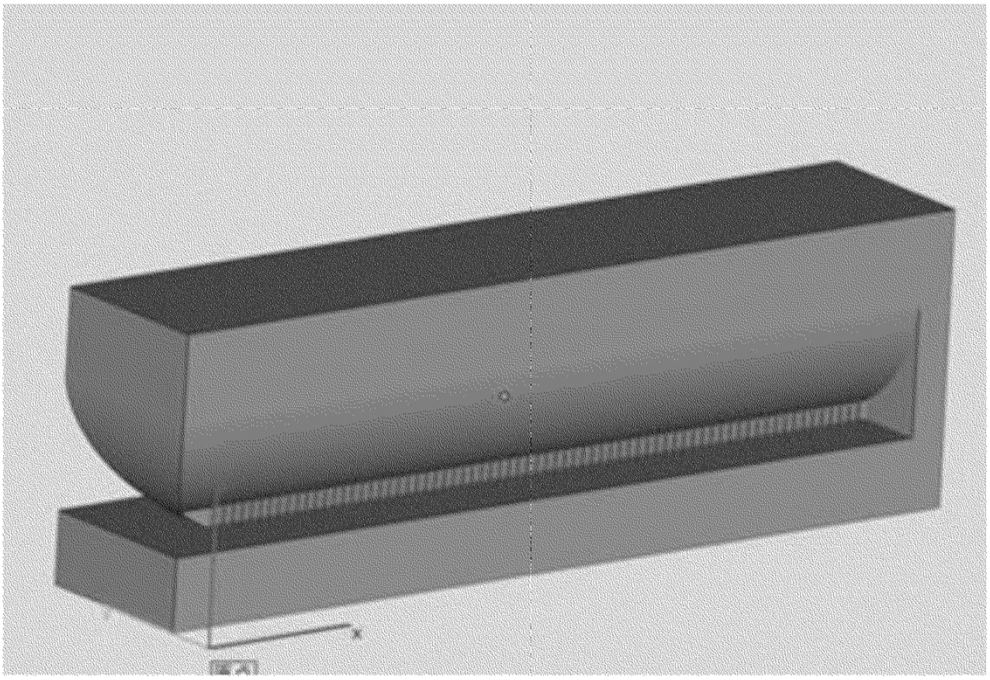

FIG. 1

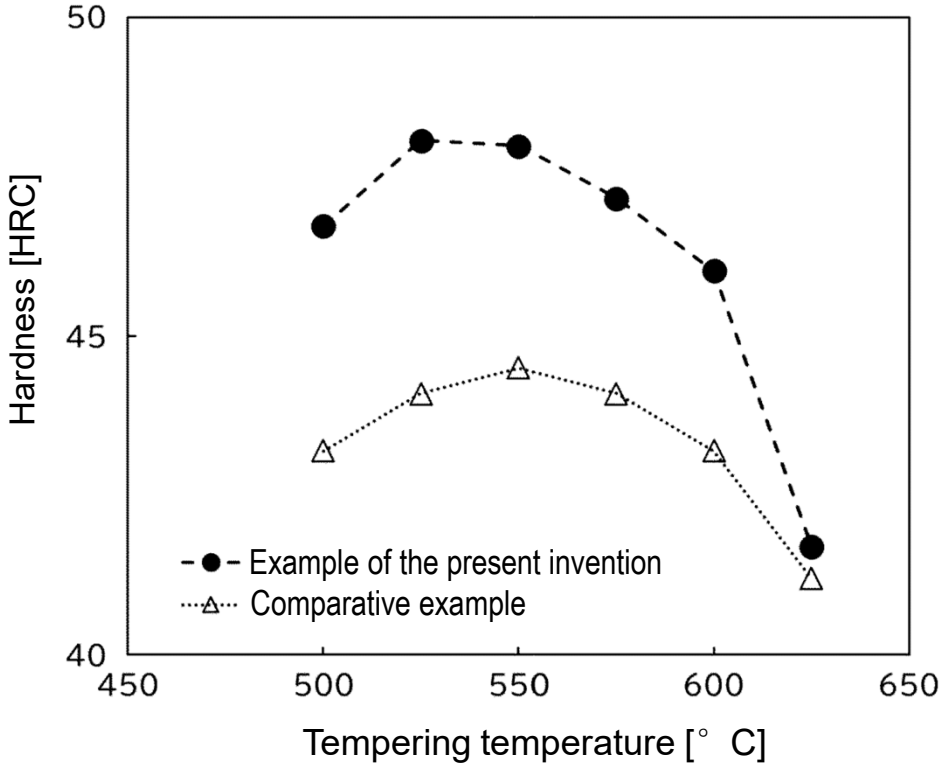
50
45
40
Hardness [HRC]
450
500
550
600
650
Tempering temperature [° C]
Example of the present invention
Comparative example

FIG. 2

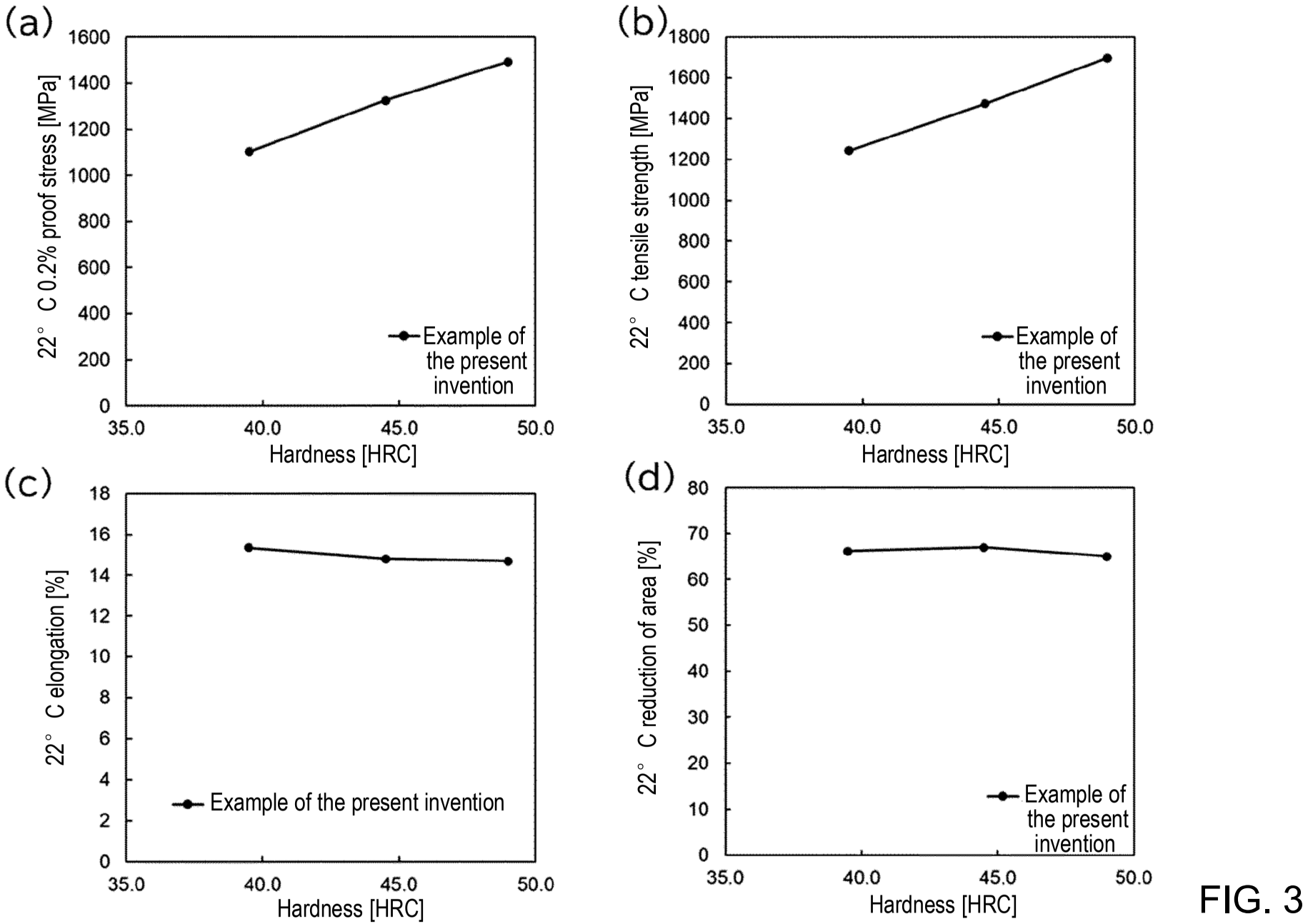
(a)
22° C 0.2% proof stress [MPa]
1600
1400
1200
1000
800
600
400
200
0
35.0
40.0
45.0
50.0
Hardness [HRC]
Example of the present invention
(b)
22° C tensile strength [MPa]
1800
1600
1400
1200
1000
800
600
400
200
0
35.0
40.0
45.0
50.0
Hardness [HRC]
Example of the present invention
(c)
22° C elongation [%]
18
16
14
12
10
8
6
4
2
0
35.0
40.0
45.0
50.0
Hardness [HRC]
Example of the present invention
(d)
22° C reduction of area [%]
80
70
60
50
40
30
20
10
0
35.0
40.0
45.0
50.0
Hardness [HRC]
Example of the present invention

FIG. 3

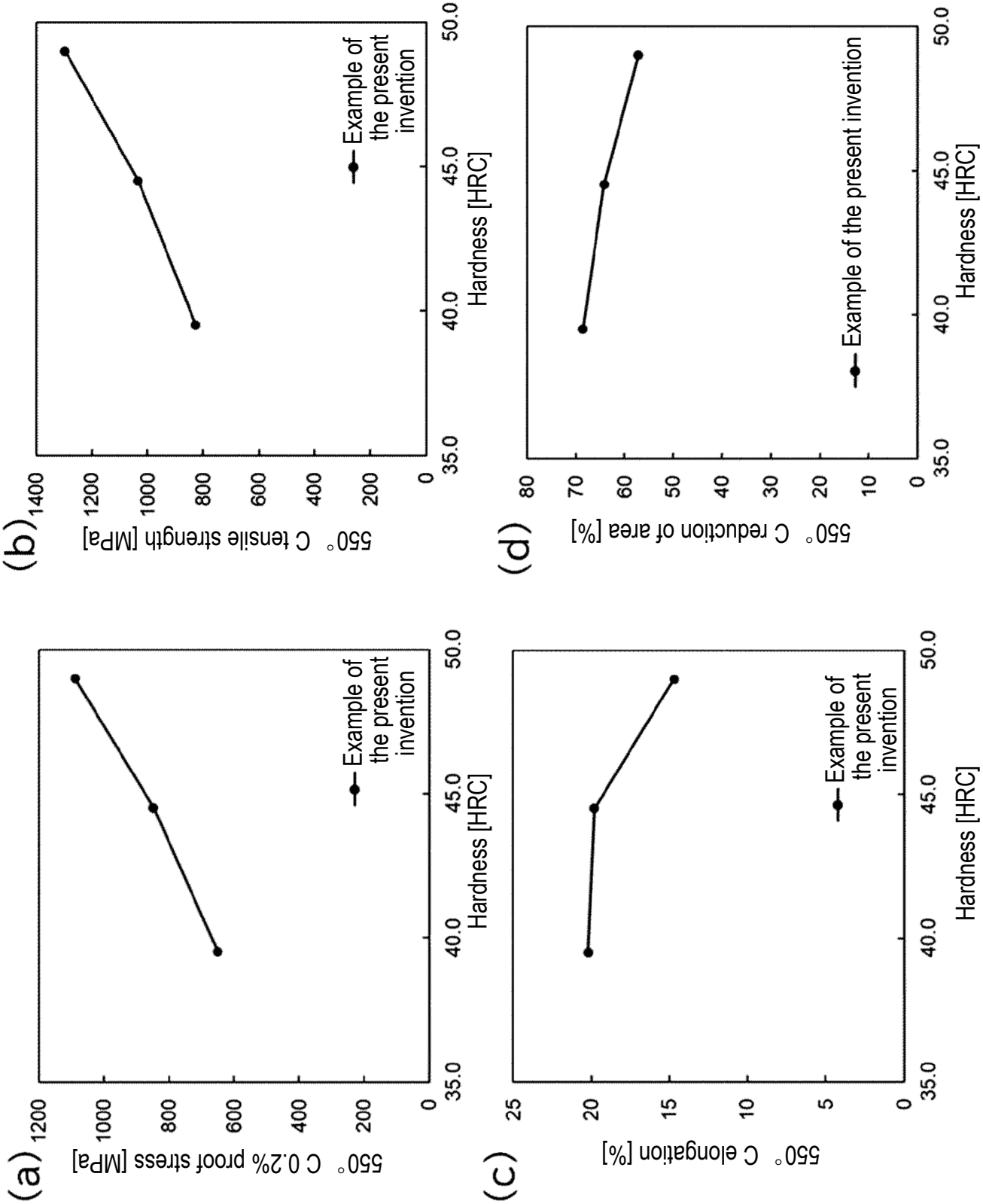
(a)
550° C 0.2% proof stress [MPa]
Hardness [HRC]
Example of the present invention
(b)
550° C tensile strength [MPa]
Hardness [HRC]
Example of the present invention
(c)
550° C elongation [%]
Hardness [HRC]
Example of the present invention
(d)
550° C reduction of area [%]
Hardness [HRC]
Example of the present invention

FIG. 4

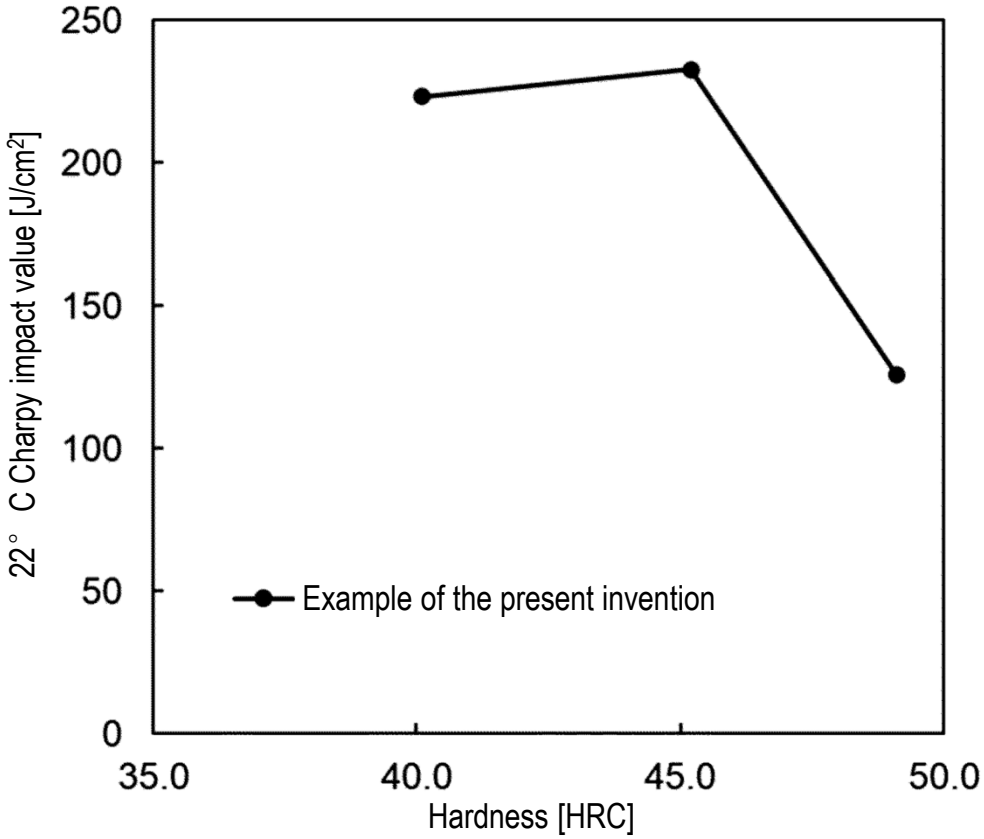
250
200
150
100
50
0
22° C Charpy impact value [J/cm²]
Example of the present invention
35.0
40.0
45.0
50.0
Hardness [HRC]

FIG. 5

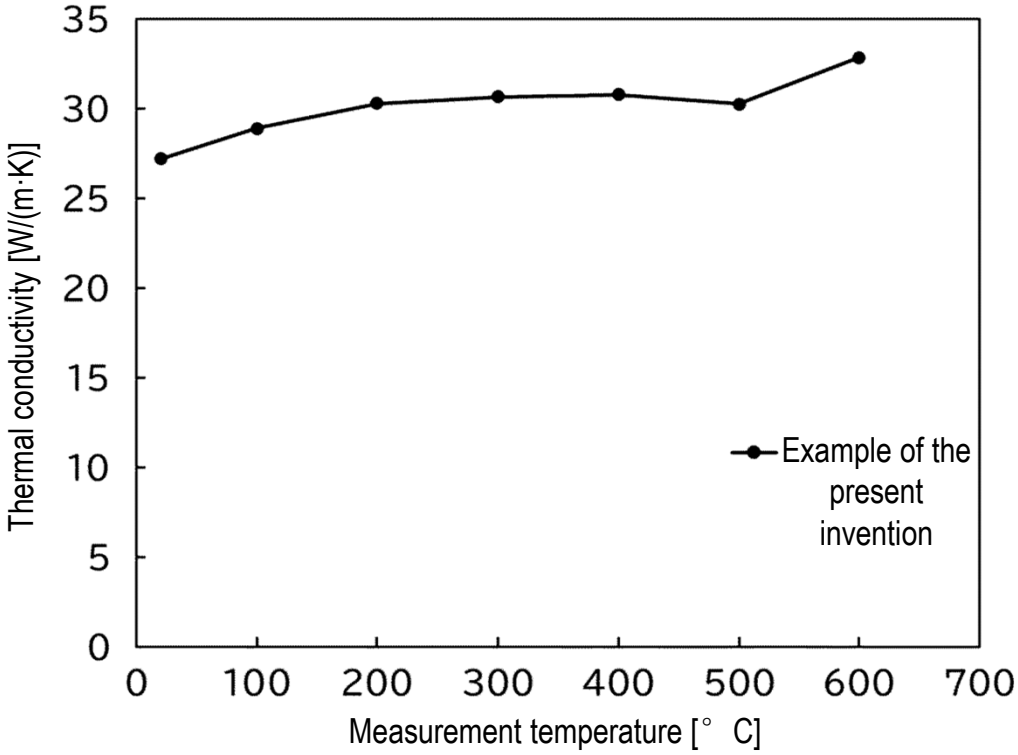
35
30
25
20
15
10
5
0
Thermal conductivity [W/(m·K)]
Example of the present invention
0
100
200
300
400
500
600
700
Measurement temperature [° C]

FIG. 6