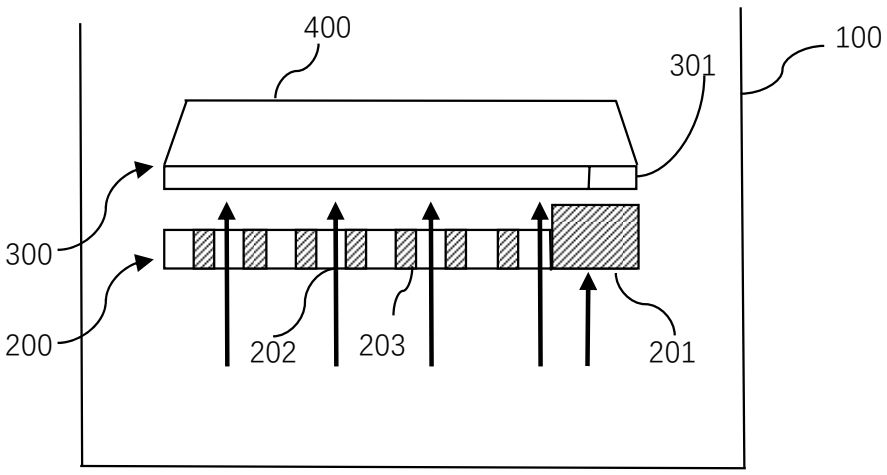


FIG.1

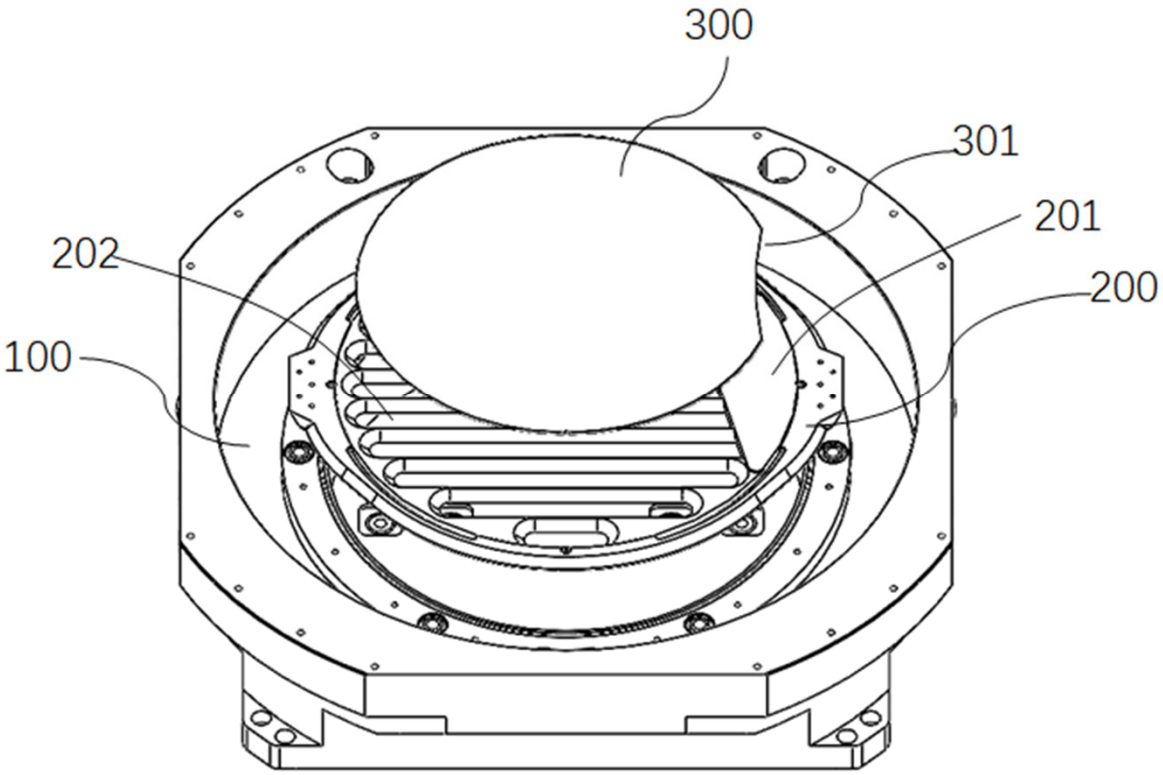


FIG.2

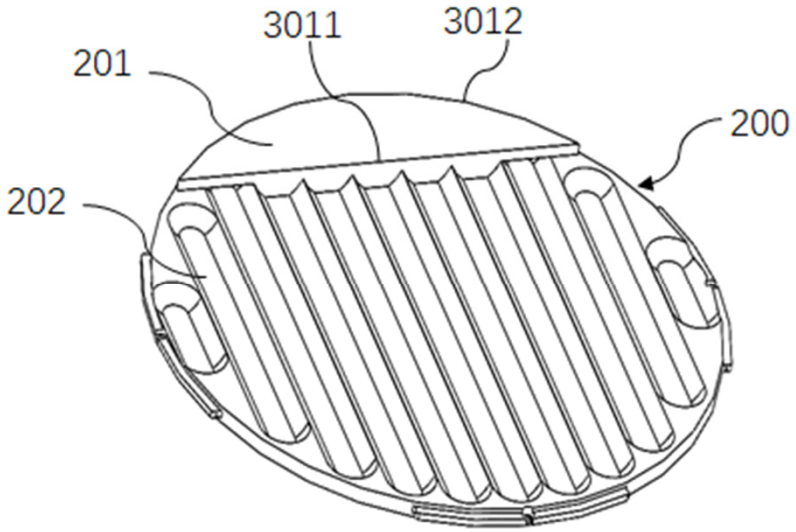


FIG.3

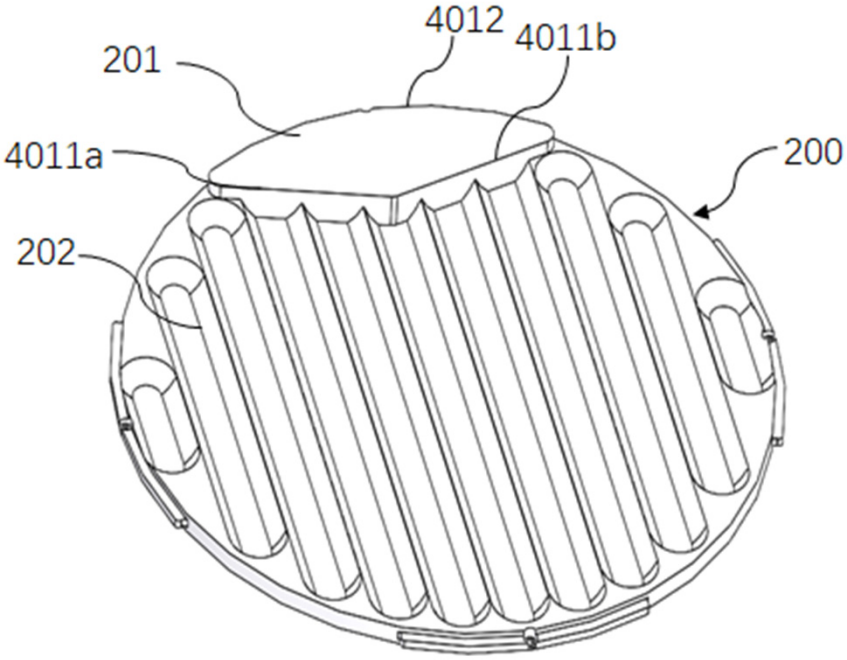


FIG.4

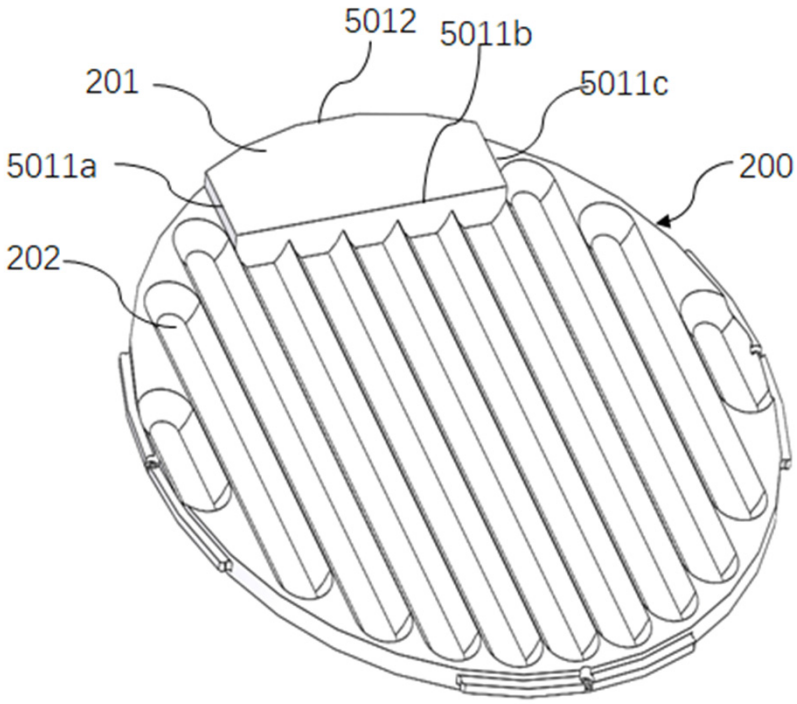


FIG.5

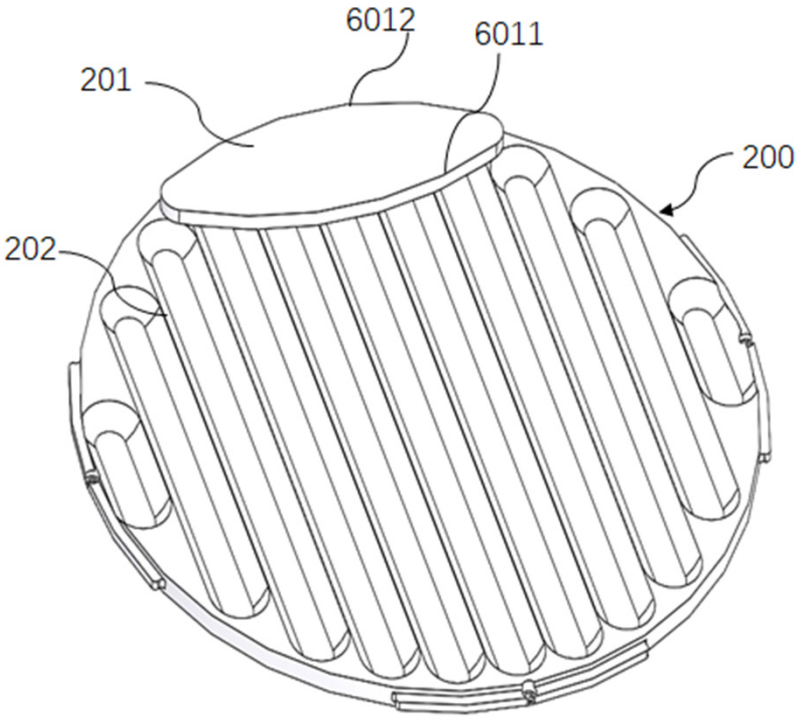


FIG.6

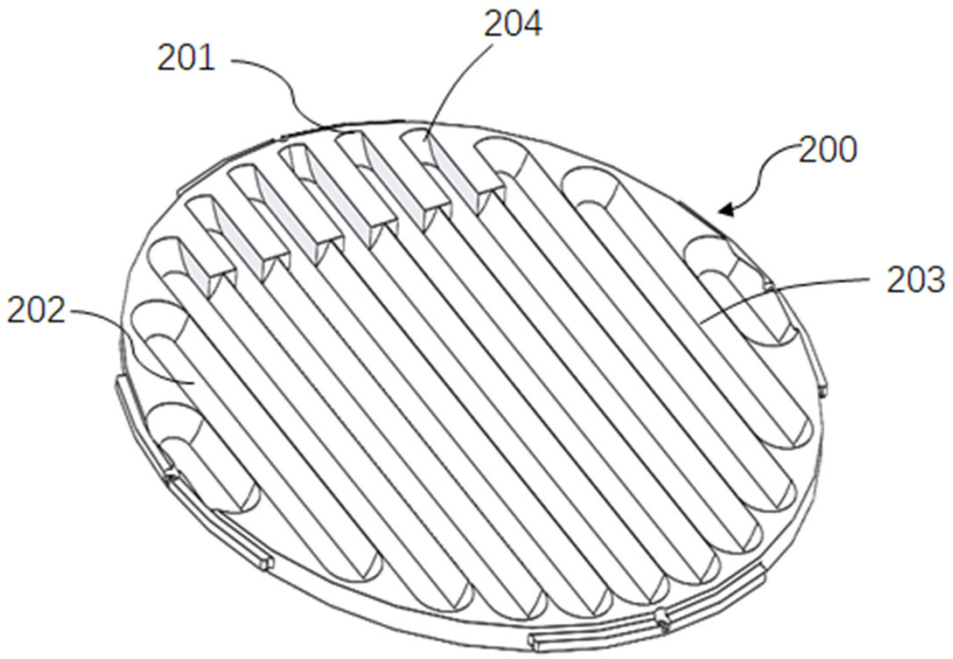


FIG.7

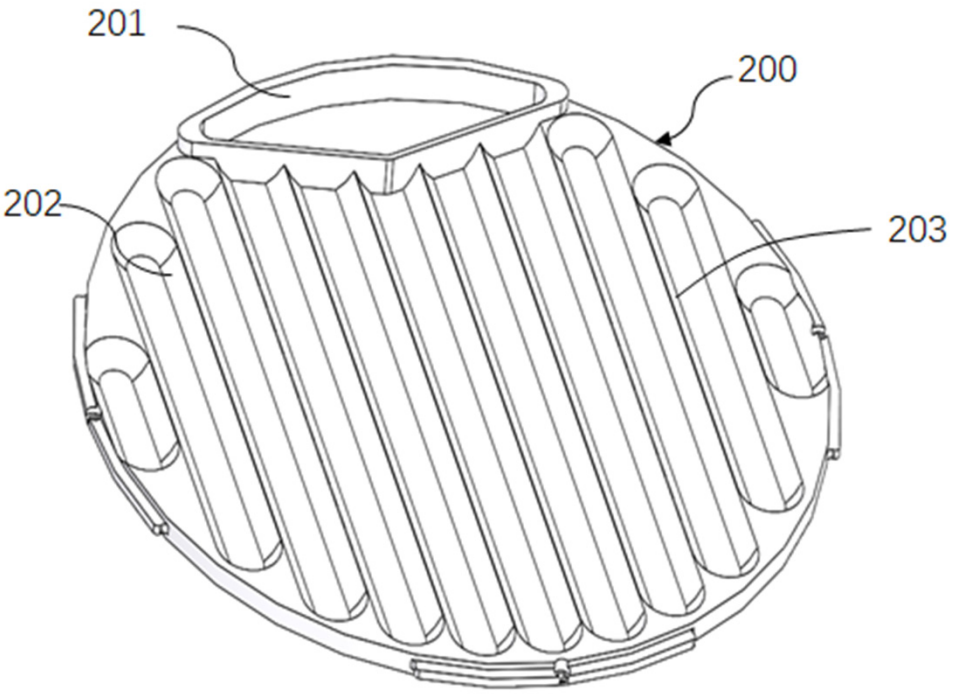


FIG.8

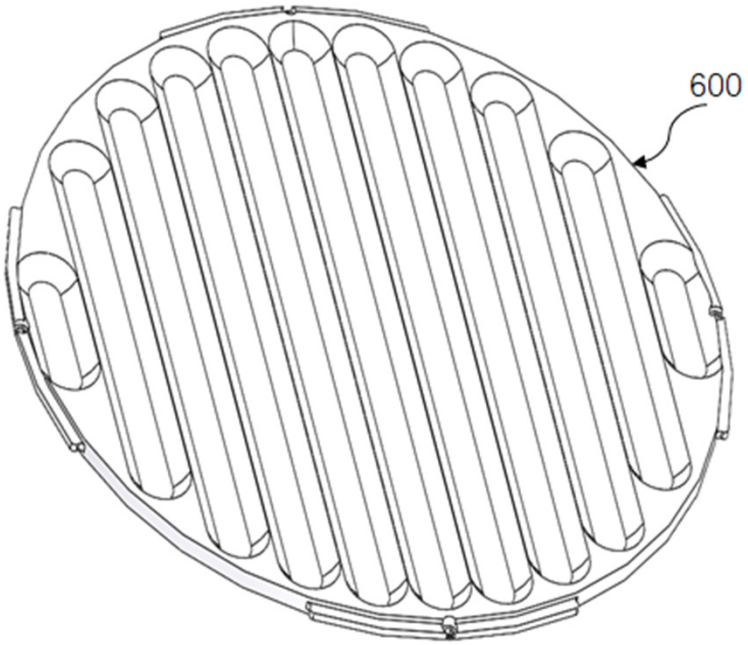

600

FIG.9

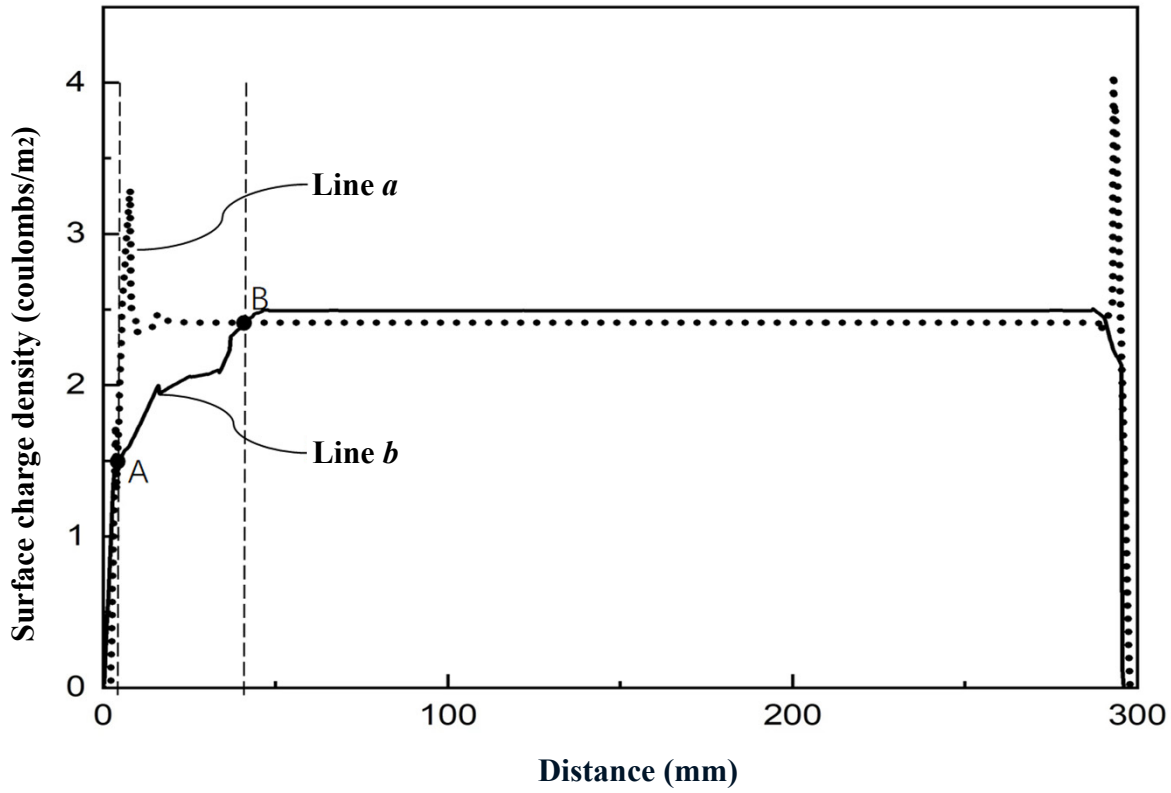

Surface charge density (coulombs/m2)
Distance (mm)
Line a
Line b
A
B
0
1
2
3
4
0
100
200
300

FIG.10

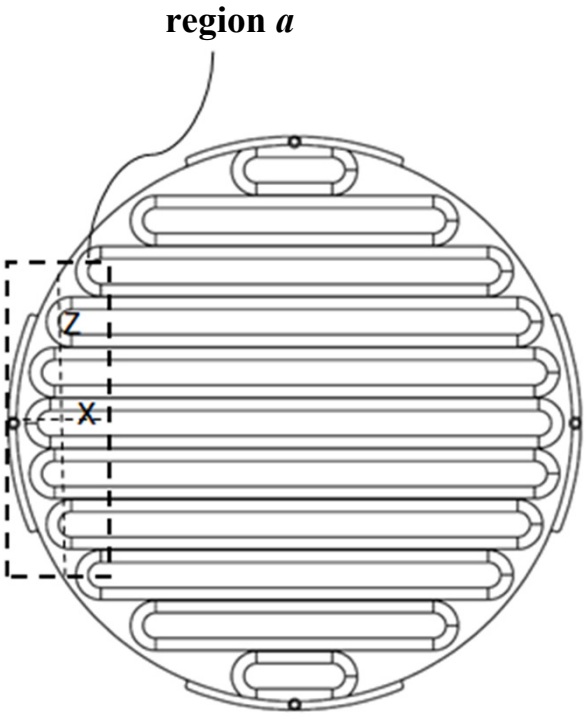


FIG.11a

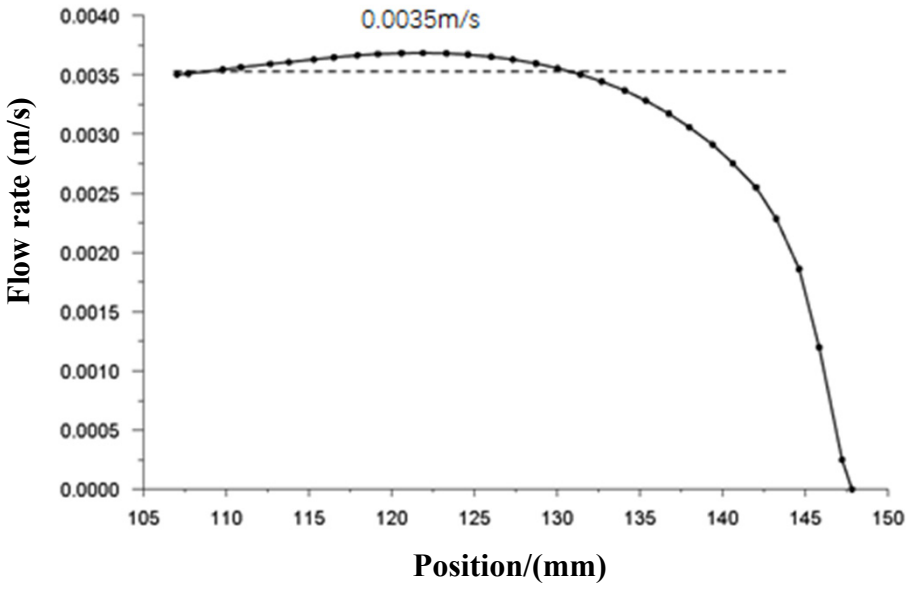


FIG.11b

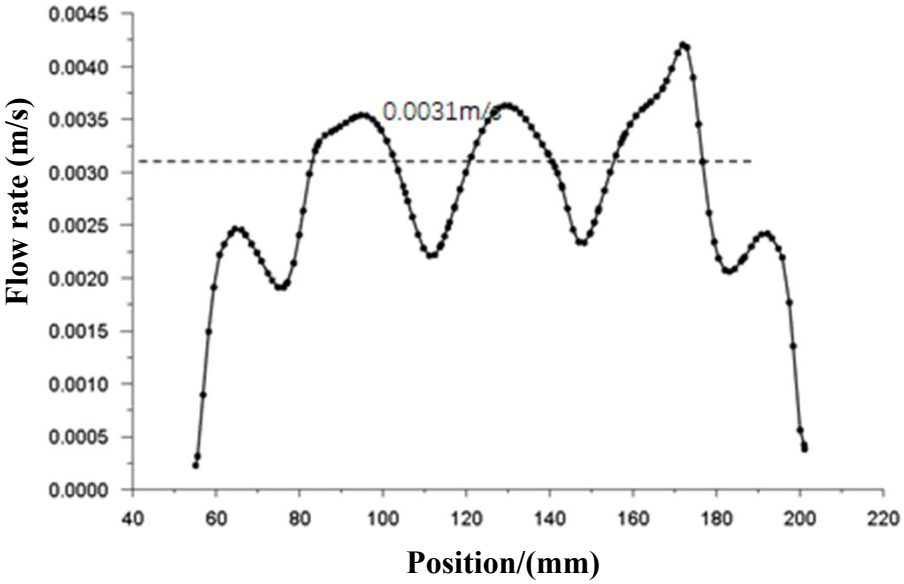

0.0045
0.0040
0.0035
0.0030
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
Flow rate (m/s)
0.0031m/s
40
60
80
100
120
140
160
180
200
220
Position/(mm)

FIG.11c

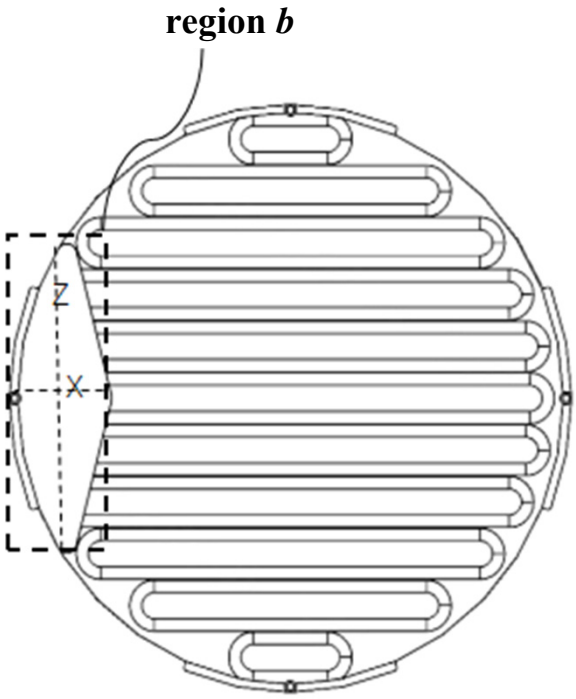


FIG.12a

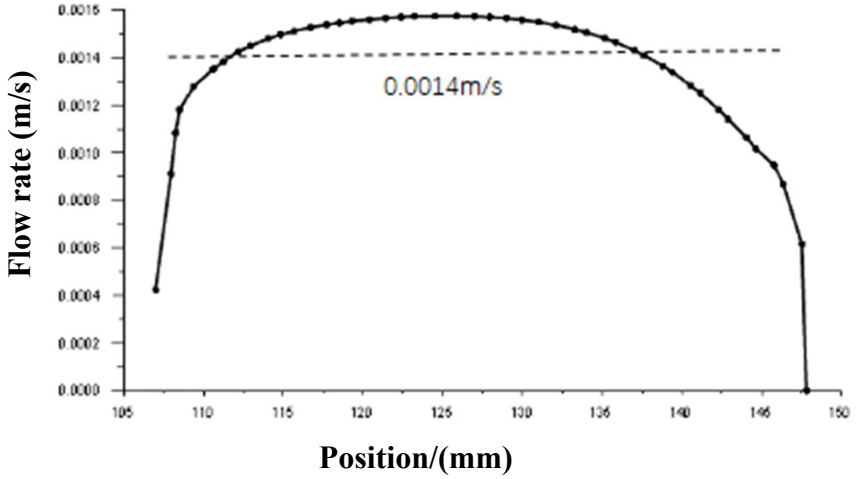


FIG.12b

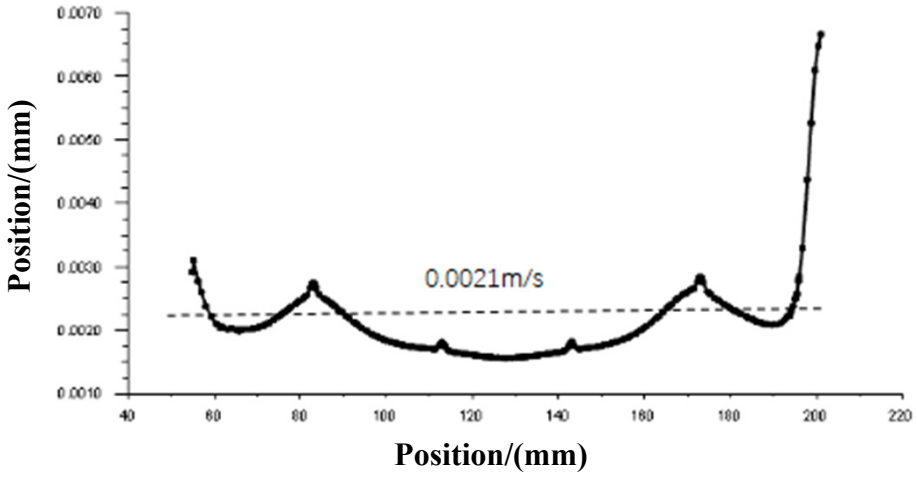

0.0070
0.0060
0.0050
0.0040
0.0030
0.0020
0.0010
Position/(mm)
0.0021m/s
40
60
80
100
120
140
160
180
200
220
Position/(mm)

FIG.12c