

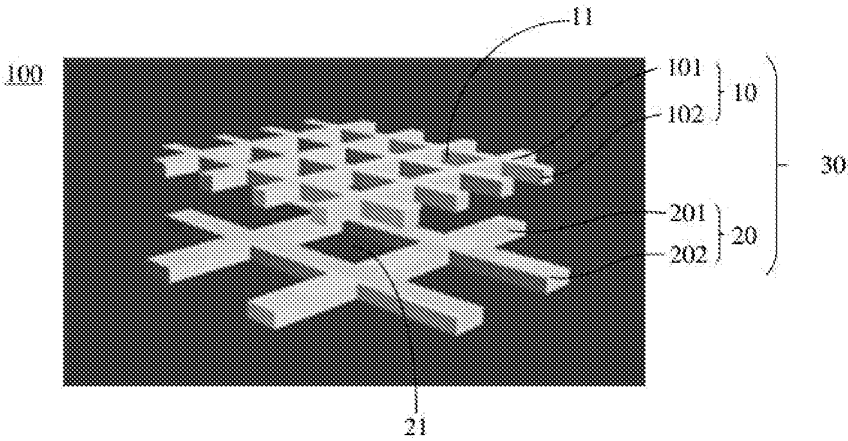


Figure 1

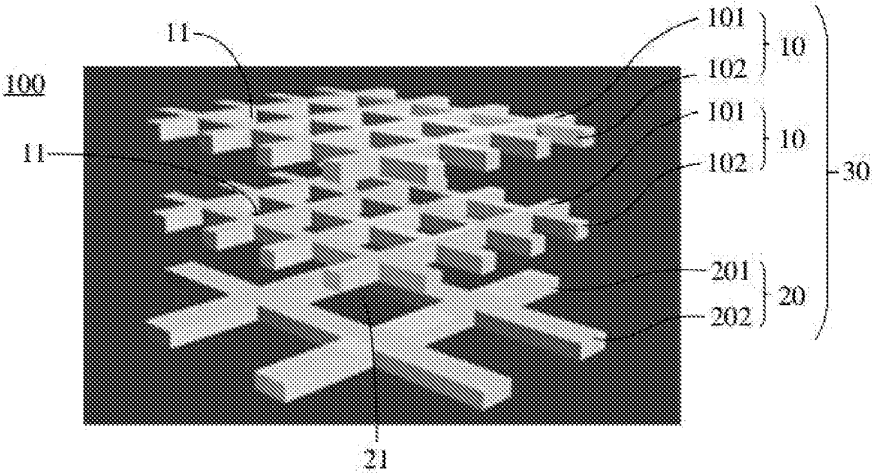


Figure 2

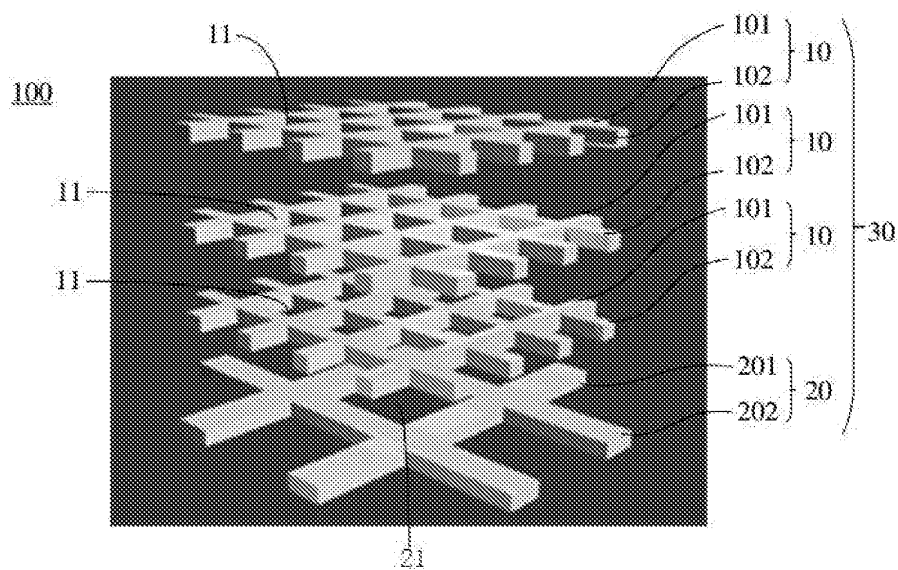


Figure 3

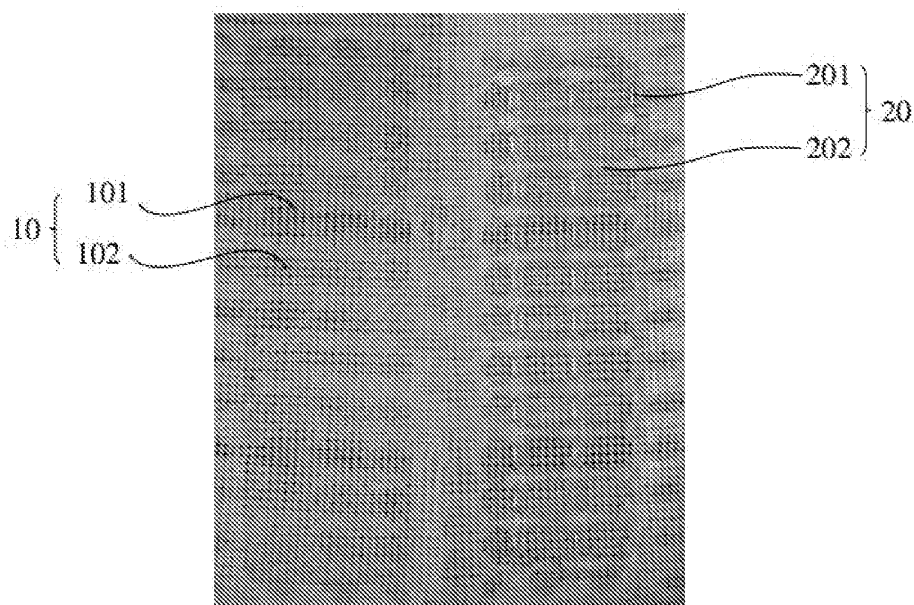


Figure 4

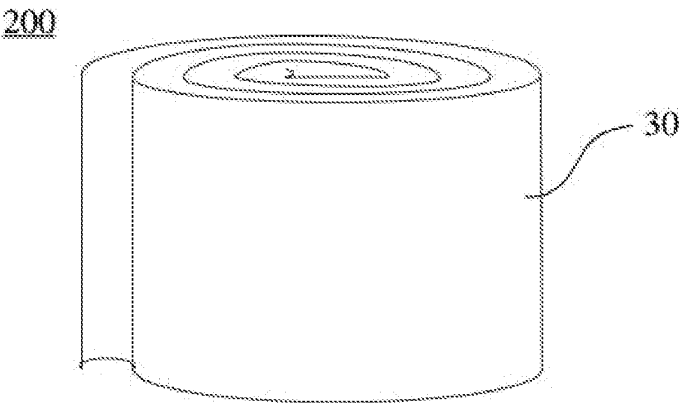


Figure 5

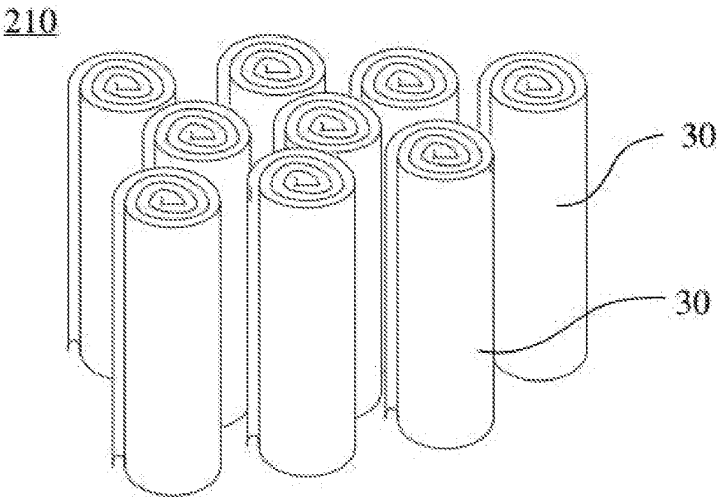


Figure 6

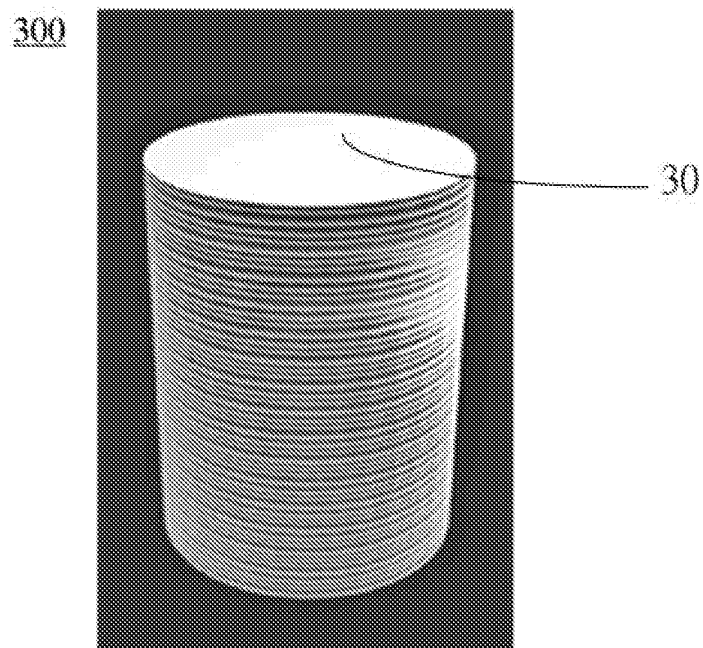


Figure 7

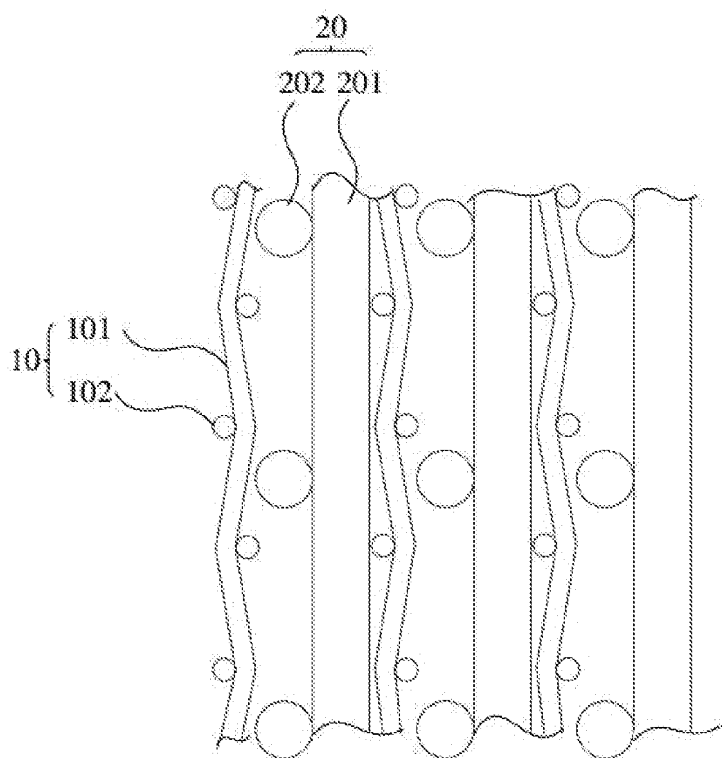


Figure 8

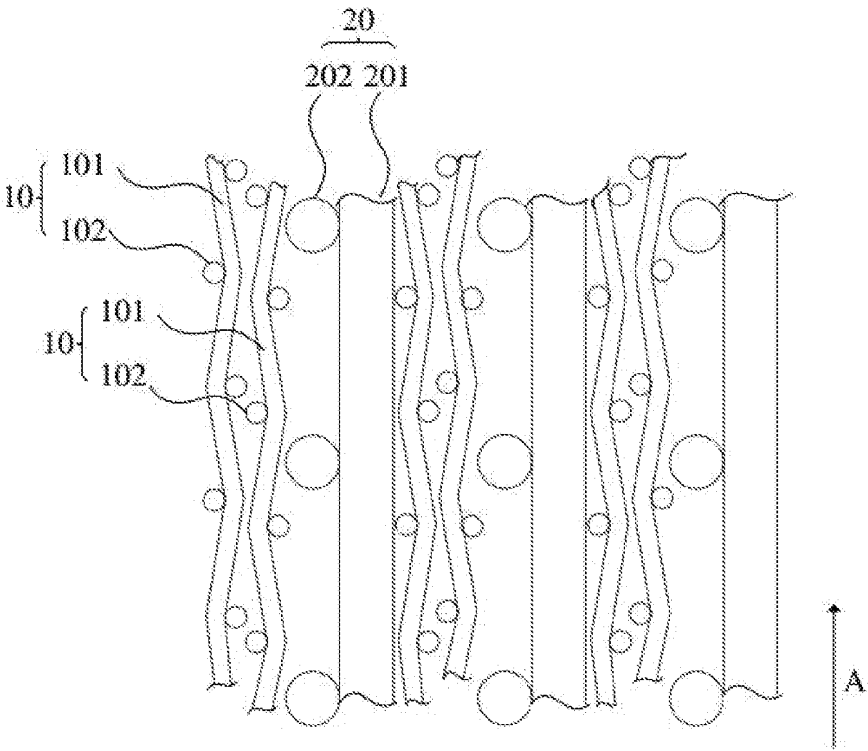


Figure 9

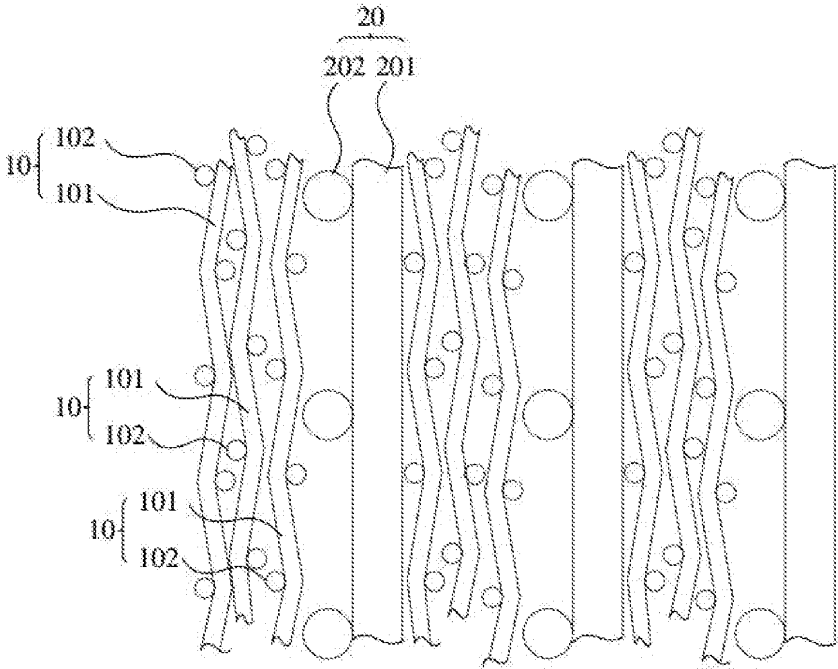


Figure 10

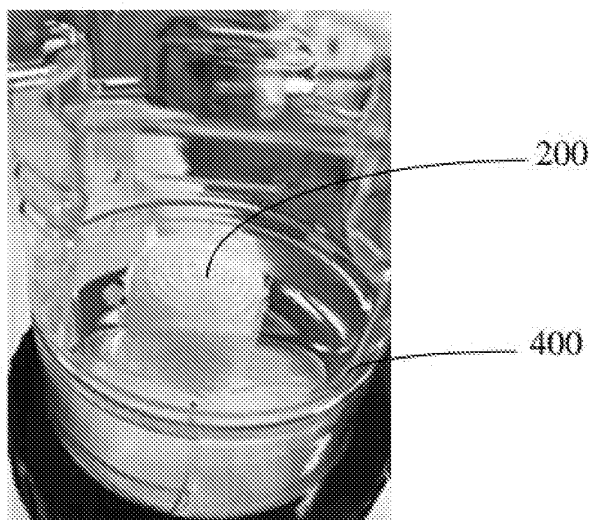


Figure 11

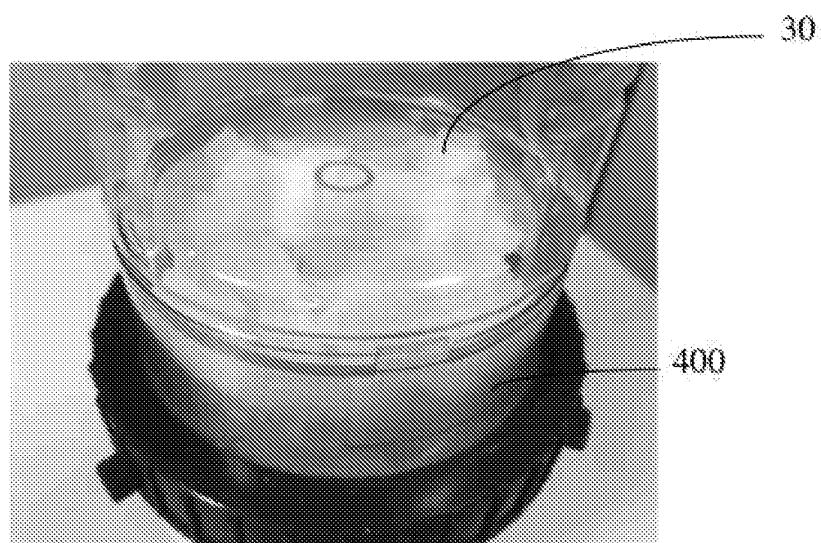


Figure 12

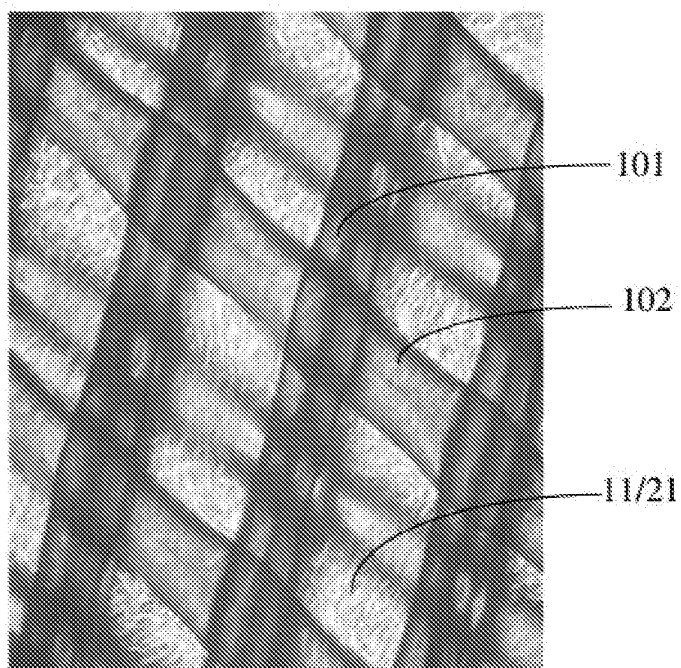


Figure 13

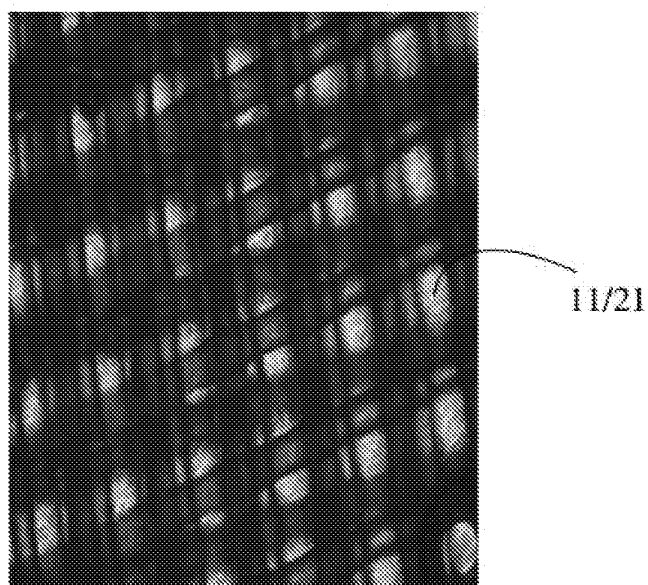


Figure 14

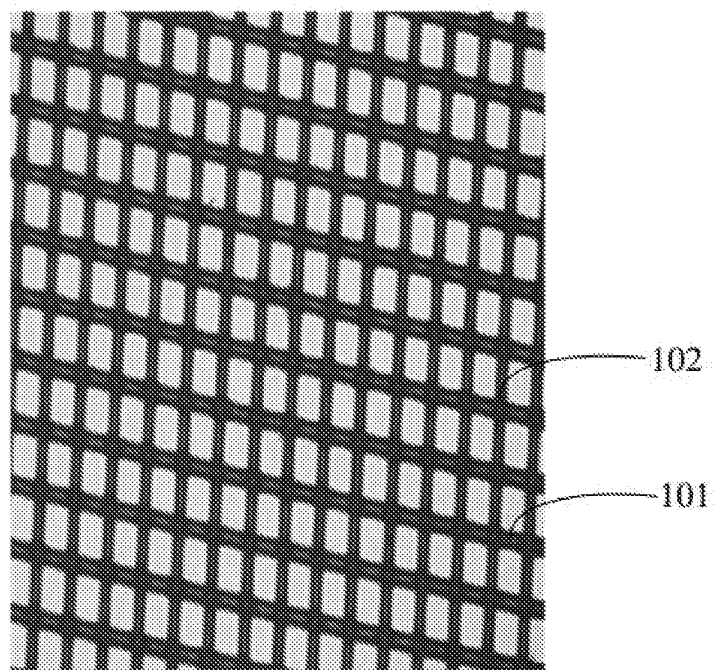


Figure 15

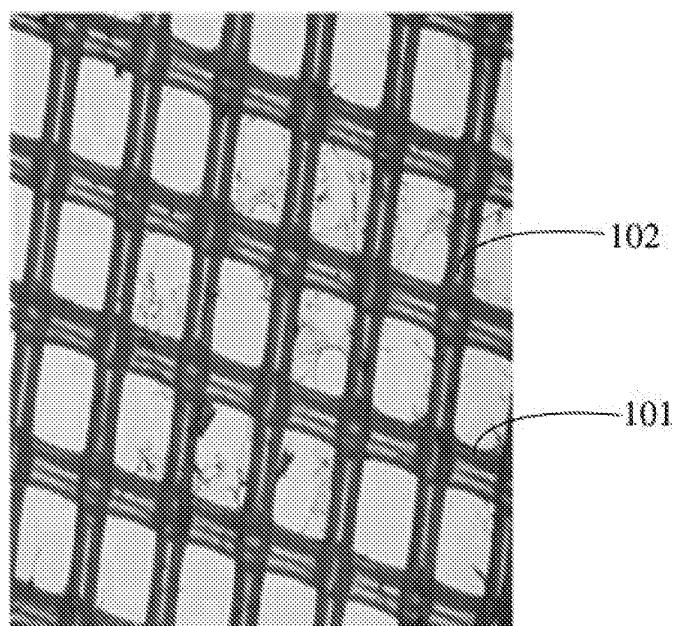


Figure 16

	cell count/ml	volume (ml)	total harvest cells	recovery rate
Group 1	3.19E+06	30	9.57E+07	>99% by checking with cell residues in the growth surface
Group 2	3.01E+06	30	9.03E+07	>90% by checking with cell residues in the growth surface

Figure 17

Particle Count	Observed particles
Frist repeat	0
Second repeat	0
Third repeat	0

Figure 18