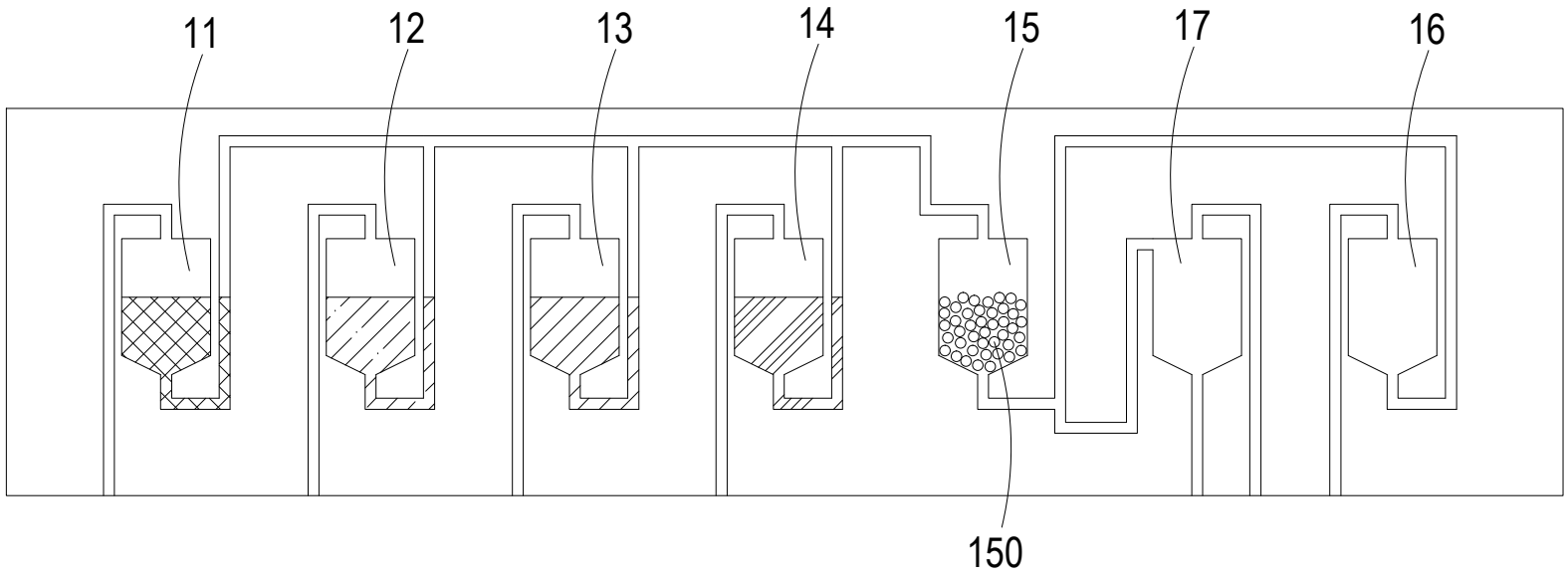


FIG. 1

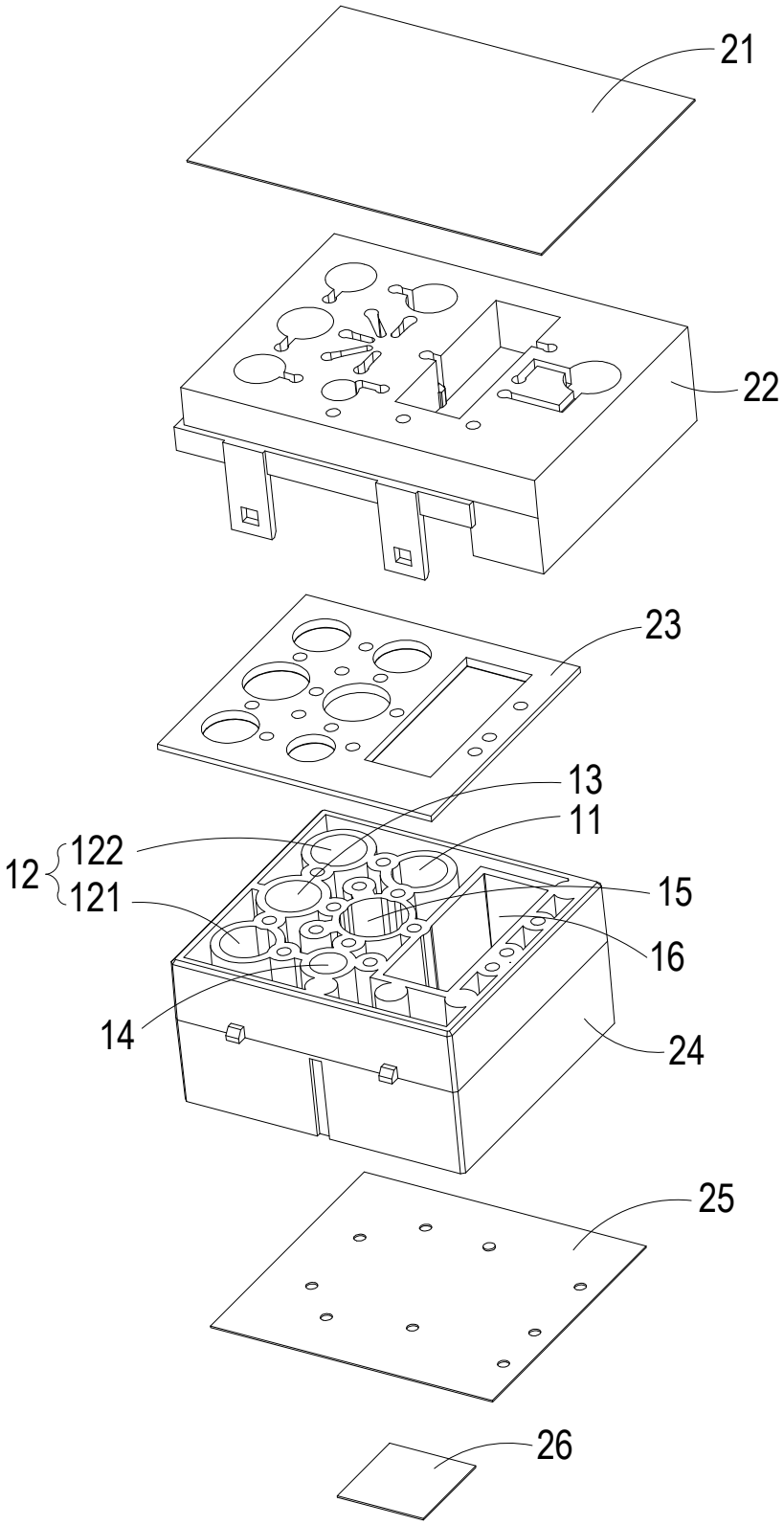


FIG. 2

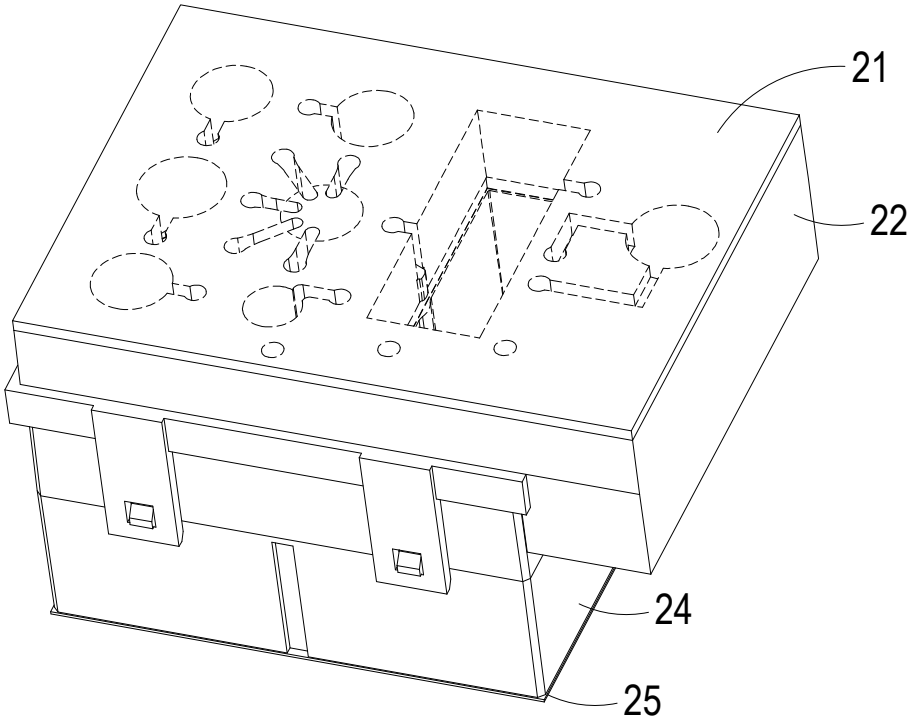


FIG. 3

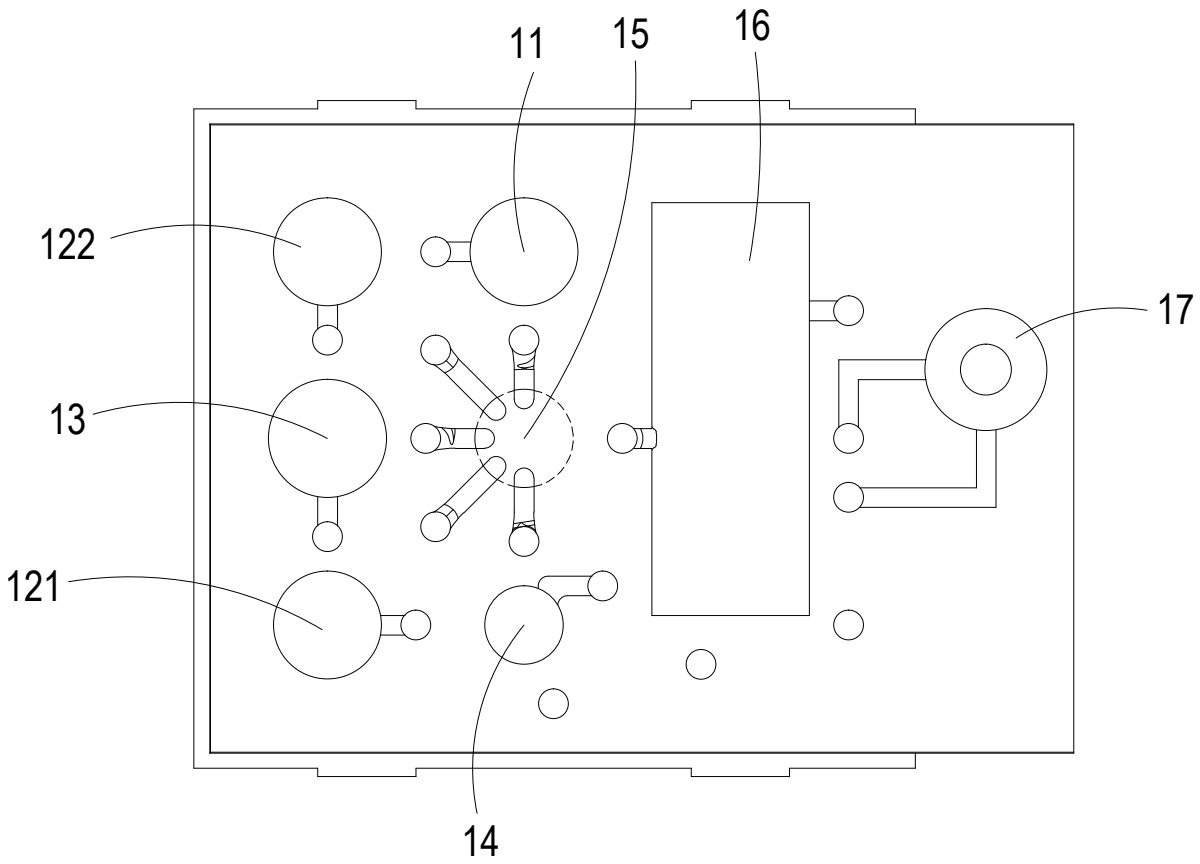


FIG. 4

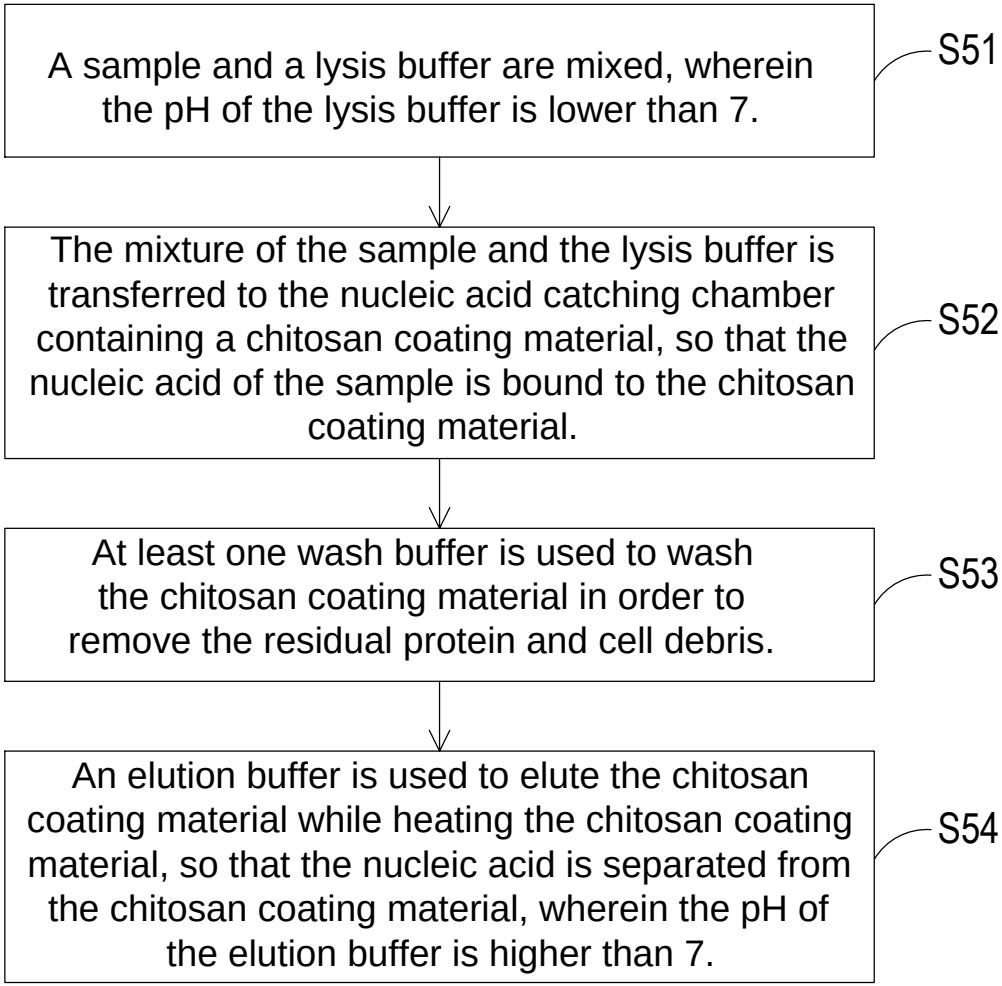

A sample and a lysis buffer are mixed, wherein the pH of the lysis buffer is lower than 7.
S51
The mixture of the sample and the lysis buffer is transferred to the nucleic acid catching chamber containing a chitosan coating material, so that the nucleic acid of the sample is bound to the chitosan coating material.
S52
At least one wash buffer is used to wash the chitosan coating material in order to remove the residual protein and cell debris.
S53
An elution buffer is used to elute the chitosan coating material while heating the chitosan coating material, so that the nucleic acid is separated from the chitosan coating material, wherein the pH of the elution buffer is higher than 7.
S54

FIG. 5

No.	Name	Total DNA (ng)		
		Run 1	Run 2	Run 3
1	Original DNA	3000	3240	3120
2	Eluted DNA	1224	1305	1207.5

	% Recovery	260/280 Value	260/230 Value
Run 1	40.80%	2.13	1.77
Run 2	40.28%	1.87	2.04
Run 3	38.70%	2.03	2.88

FIG. 6A

No.	Name	Total DNA (ng)				
		12000ng	6000ng	3000ng	1500ng	750ng
1	Original DNA	12120	6160	3240	1500	750
3	Eluted DNA	2490	1875	1260	595	315

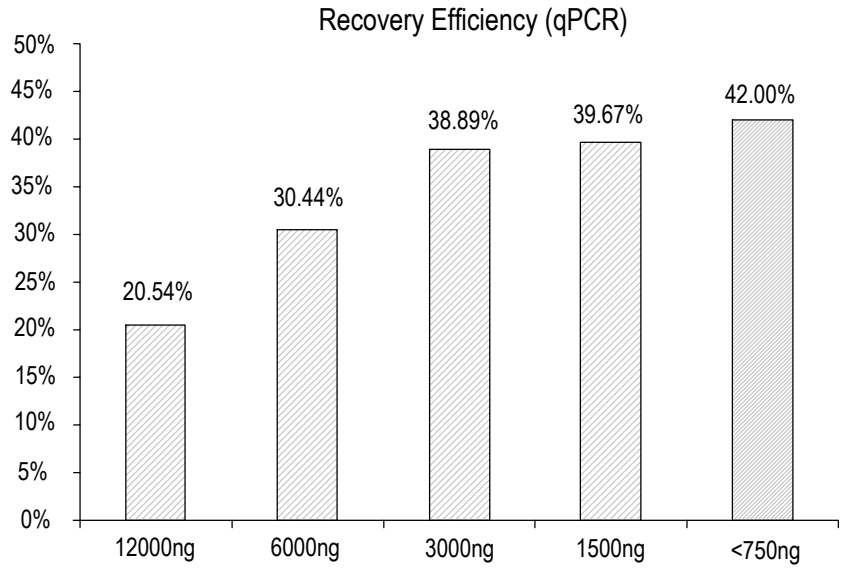


FIG. 6B

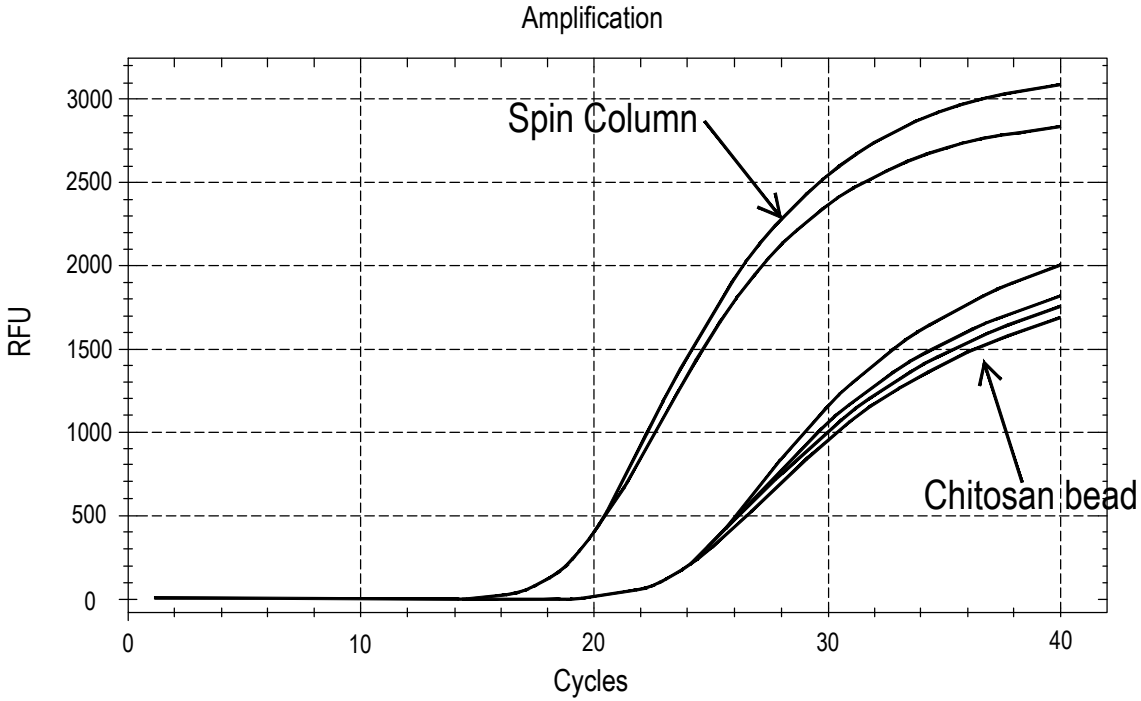

Amplification
Spin Column
Chitosan bead
RFU
Cycles
3000
2500
2000
1500
1000
500
0
0
10
20
30
40

FIG. 7