System A

Column		
Length, mm	150	
ID, mm	2.1	
d_p, μm	1.6	
V_M, ml*	0.53	0.31

Dwell volume		0.525
V_D, ml	0.18	

Injection volume	
V_i, ul	5

Mobile phase	
Flow-rate, ml/min	0.35

Pressure	
Pressure, MPa	5.4

Equilibrium time, min	15

Time, min	B, %	
0	5	
5	5	
15	95	25.71429
20	95	
21	5	
30	5	

Run time, min	20
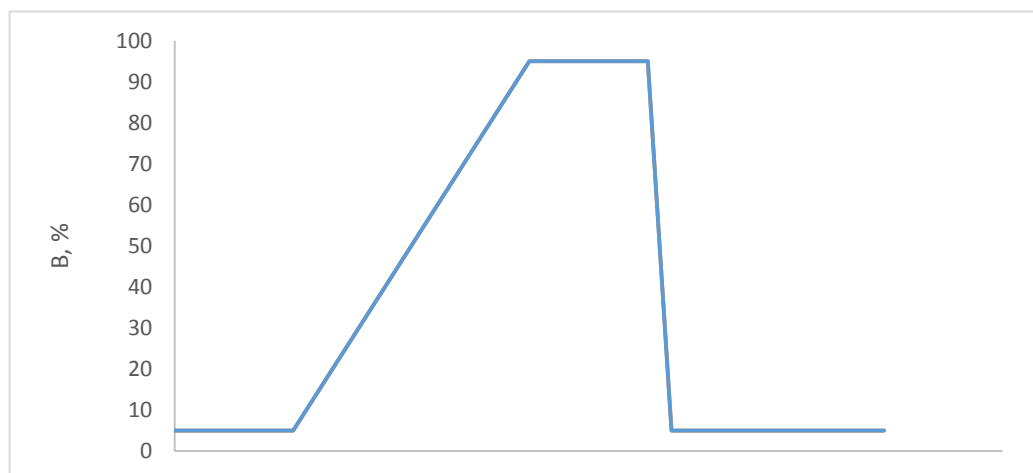
	0	5	10	15	20	25	30	35

Time, min

	System A
V_M/V_G	0.0750
Analysis time, min	35
Analysis/hour	1.7
ml/Analysis	7

* - 60% of colume volume as a first approximation

System B

Column	
Length, mm	150
ID, mm	2.1
d_p, μm	1.6
V_M, ml*	0.48

0.31

Dwell volume	
V_D, ml	0.18

Injection volume	
V_i, ul	5.00

Mobile phase	
Flow-rate, ml/min	0.35

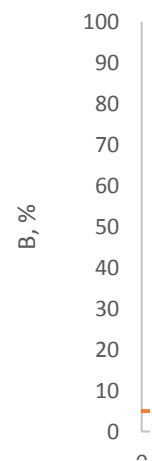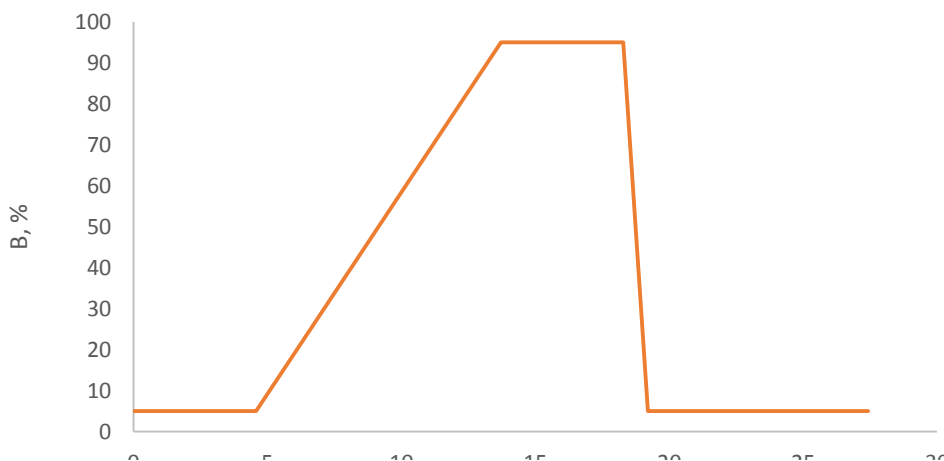| Pressure	
Pressure, MPa	5.4

Equilibrium time, min	14.8

Time, min	B, %
0	5
4.57	5
13.71	95
18.29	95
19.20	5
27.43	5

28.125

Run time, min	18.29

| 0 | 5 | 10 | 15 | 20 | 25 | 30 | | 0 |

Time, min

System B
0.0750
33.13
1.8
6.4

System C

Column

Length, mm	150
ID, mm	2.1
d_p, μm	1.6
V_M, ml*	0.48

Dwell volume

V_D, ml	0.18

Injection volume

V_i, ul	5.00

Mobile phase

Flow-rate, ml/min	2.00

Pressure

Pressure, MPa	30.9

Equilibrium time, min	2.6

Time, min	B, %
0	5
0.80	5
2.40	95
3.20	95
3.36	5
4.80	5

Run time, min	3.20
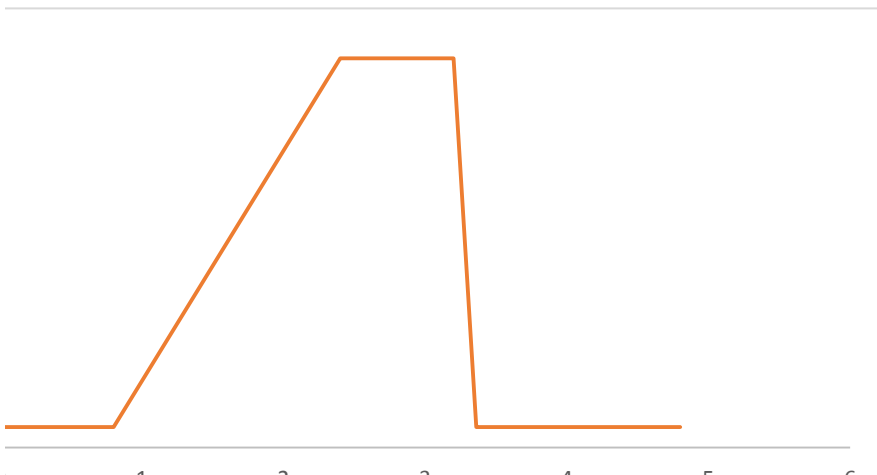
	1	2	3	4	5	6

Time, min

System B
0.0750
5.80
10.3
6.4