

Table S1. The factors and levels of deterministic screening experimental design.

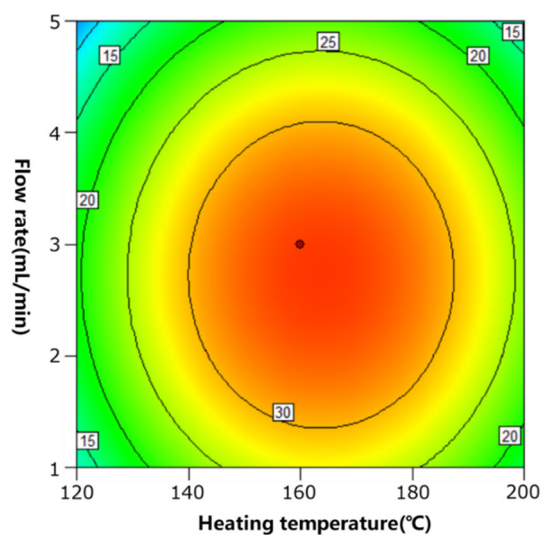
Factors	Symbol	Unit	Code		
			-1	0	1
Heating temperature	X1	°C	120	160	200
Solution flow rate	X2	mL/min	1.0	3.0	5.0
Raw material content	X3	%	5	10	15
Ethylenediamine content	X4	%	50.00	66.67	83.33
Tetraethylene glycol content	X5	%	40	50	60

Table S2. Deterministic filter design tables and results.

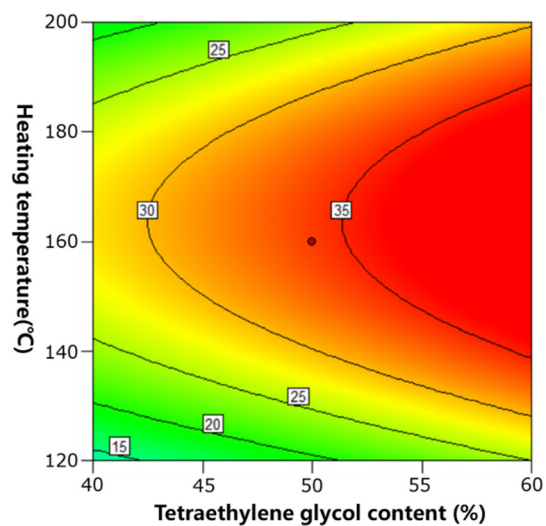
Experiment	Factors					Response Value
	X1 (°C)	X2 (mL/Min)	X3 (%)	X4 (%)	X5 (%)	Fluorescence Quantum Yield (%)
1	160	3.0	10	66.67	50	26.95
2	200	5.0	15	50.00	60	17.93
3	120	1.0	15	50.00	60	10.08
4	200	5.0	5	50.00	50	4.414
5	200	1.0	15	50.00	40	16.06
6	120	5.0	5	83.33	60	13.10
7	200	1.0	10	83.33	60	23.75
8	160	1.0	5	50.00	40	20.53
9	120	3.0	5	50.00	60	26.93
10	160	5.0	15	83.33	60	36.16
11	120	5.0	15	66.67	40	2.284
12	200	1.0	5	66.67	60	22.34
13	120	1.0	15	83.33	50	20.59
14	120	1.0	5	83.33	40	2.563
15	200	3.0	15	83.33	40	23.44
16	200	5.0	5	83.33	40	3.132
17	120	5.0	10	50.00	40	3.134

Table S3. Comparison of the test results of the two testing methods.

Testing Method	Chlorogenic Acid Content Equivalent in Unit Mass of Herbs (%)				<i>p</i> -Value
PAD method	3.28	3.35	3.37	3.42	0.398
Total phenol assay	3.35	3.17	3.33	3.37	



(a)



(b)

Figure S1. Contour plot of fluorescence yield. (a) Effect of heating temperature and solution flow rate on the fluorescence yield with a tetraethylene glycol concentration of 60%; (b) The effect of tetraethylene glycol content and heating temperature on the fluorescence yield. The solution flow rate was 3 mL/min.