Table S1. Data for orthogonal experimental design of benziothiazolinone

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Array factor | A(Solvent) | B(Extract method) | C(Volume, mL) | D(C18) | Recovery a, b (%) |
| 1 | 1 (methanol) | 1 (vortex 1min and ultrasound 5 min) | 1 (10) | 1 (50 mg) | 54.14  |
| 2 | 1 (methanol) | 2 (vortex 1min and ultrasound 10 min) | 2 (20) | 2 (100 mg) | 65.83  |
| 3 | 1 (methanol) | 3 (vortex 1min and ultrasound 15 min) | 3 (30) | 3 (150 mg) | 43.30  |
| 4 | 2 (acetonitrile) | 1 vortex 1min and ultrasound 5 min) | 2 (20) | 3 (150 mg) | 78.43  |
| 5 | 2 (acetonitrile) | 2 (vortex 1min and ultrasound 10 min) | 3 (30) | 1 (50 mg) | 84.43  |
| 6 | 2 (acetonitrile) | 3 (vortex 1min and ultrasound 15 min) | 1 (10) | 2 (100 mg) | 69.09  |
| 7 | 3 (ethyl acetate) | 1 (vortex 1min and ultrasound 5 min) | 3 (30) | 2 (100 mg) | 62.35  |
| 8 | 3 (ethyl acetate) | 2 (vortex 1min and ultrasound 10 min) | 1 (10) | 3 (150 mg) | 83.68  |
| 9 | 3 (ethyl acetate) | 3 (vortex 1min and ultrasound 15 min) | 2 (20) | 1 (50 mg) | 78.81  |
| Average 1 (%) | 54.42  | 64.97  | 68.97  | 72.46  |  |
| Average 2 (%) | 77.32  | 77.98  | 74.36  | 65.76  |  |
| Average3 (%) | 74.95  | 63.73  | 63.36  | 68.47  |  |
| Range (%) | 22.89  | 14.25  | 11.00  | 6.70  |  |

Table S2. Orthogonal experimental analysis of variance (*α* = 0.1)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Factor | Sum of square of deviations | Degree of freedom | *F* ratio | *F* critical value | Significance |
| A | 950.93  | 2.00  | 3.185  | 3.11 | \* |
| B | 373.68  | 2.00  | 0.949  | 3.11 |  |
| C | 181.41  | 2.00  | 0.461  | 3.11 |  |
| D | 68.22  | 2.00  | 0.173  | 3.11 |  |
| Error | 1574.24  | 8.00  |  |  |  |