**Table 1**. Rutin solubility in different solvent systems based on Hansen solubility parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Hansen solubility parameters (MPa1/2)** | | | |
| **Methanol (%)** | **Dispersion D)** | **Polar bonding (P)** | **Hydrogen bonding (H)** | **Distance\*** |
| Rutin | 19.30 | 16.10 | 25.40 | - |
| Water | 15.50 | 16.00 | 42.30 | 18.53 |
| 20 | 15.34 | 15.26 | 38.30 | 15.16 |
| 40 | 15.18 | 14.52 | 34.30 | 12.23 |
| 60 | 15.02 | 13.78 | 30.30 | 10.13 |
| 80 | 14.86 | 13.04 | 26.30 | 9.44 |
| 100 | 14.70 | 12.30 | 22.30 | 10.43 |



Where s denotes for solvent and r denotes for rutin