Electronic Supplementary Material (ESI) for Analytical Methods.


**Figure S1a** Actual by predicted plot for Rs 1

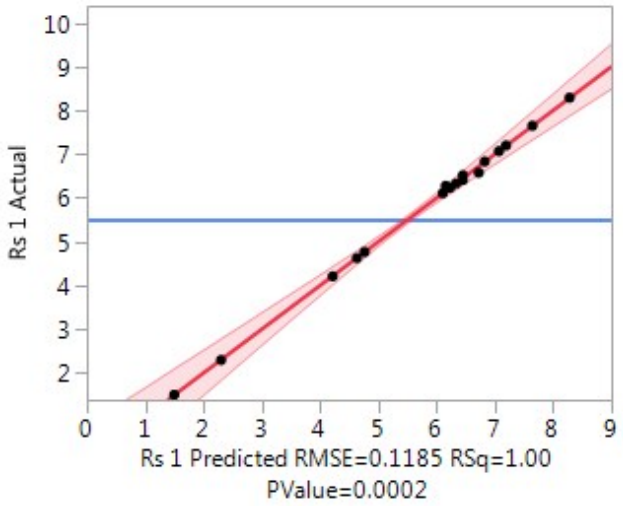



**Figure S1b** Interaction Profiles for Rs 1

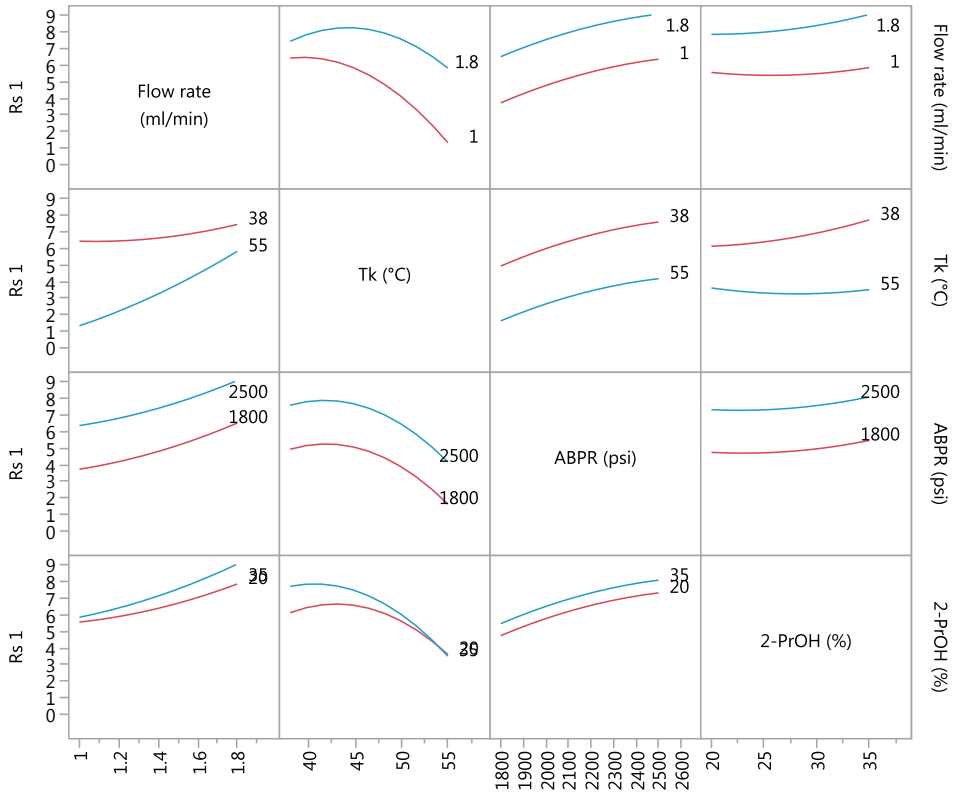


**Figure S2a** Actual by predicted plot for Rs 2

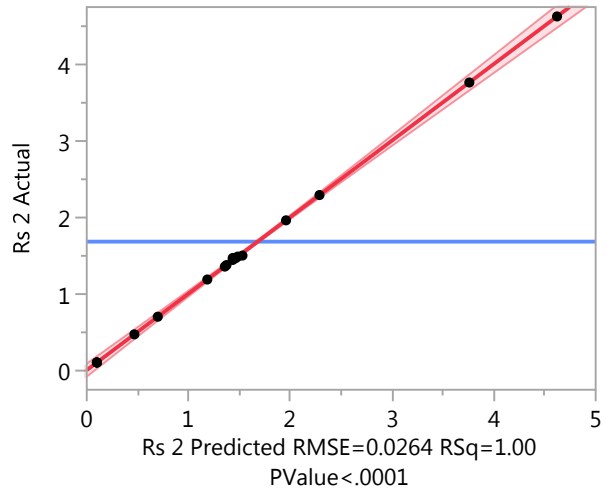



**Figure S2b** Interaction Profiles for Rs 2

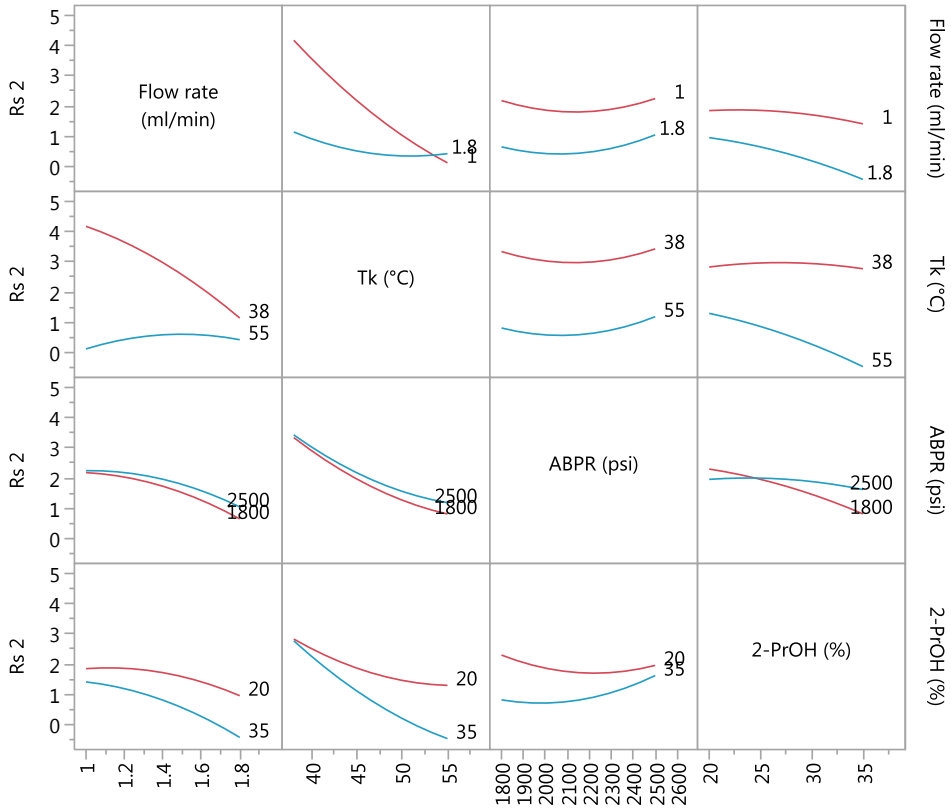


**Figure S3a** Actual by predicted plot for Rs 3

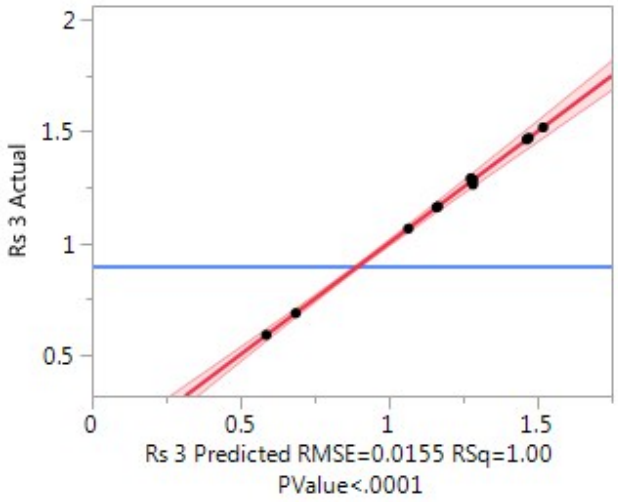



**Figure S3b** Interaction Profiles for Rs 3

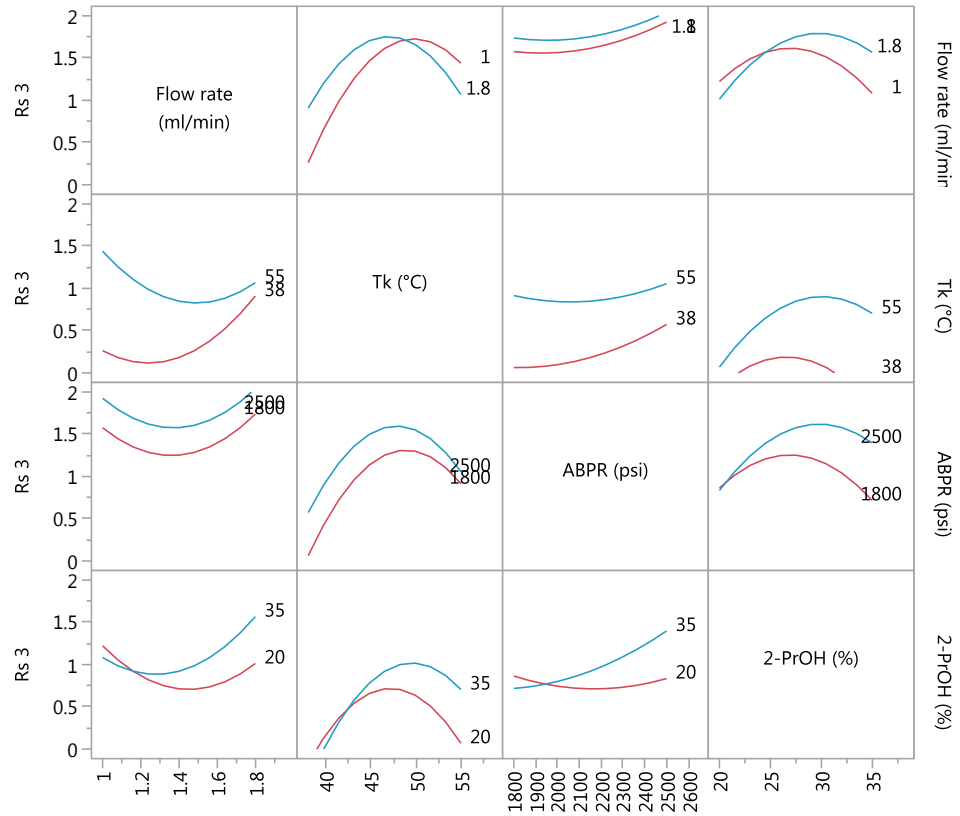


**Figure S4a** Actual by predicted plot for TF 1

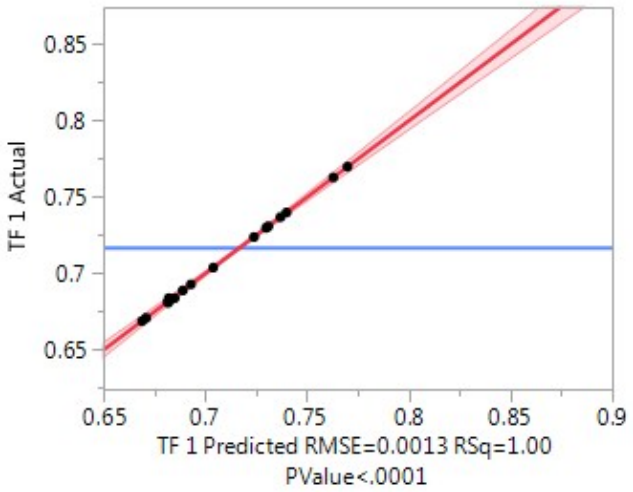



**Figure S4b** Interaction Profiles for TF 1

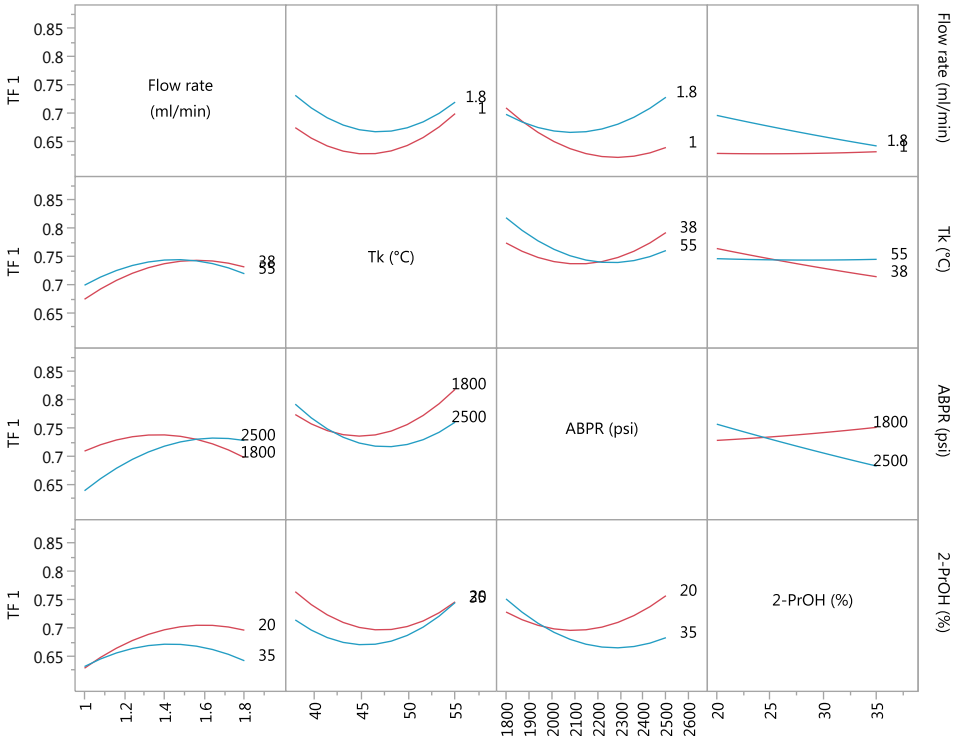


**Figure S5a** Actual by predicted plot for TF 2

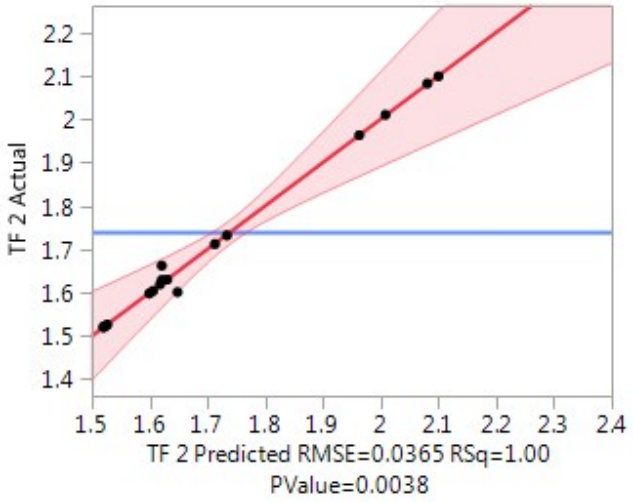
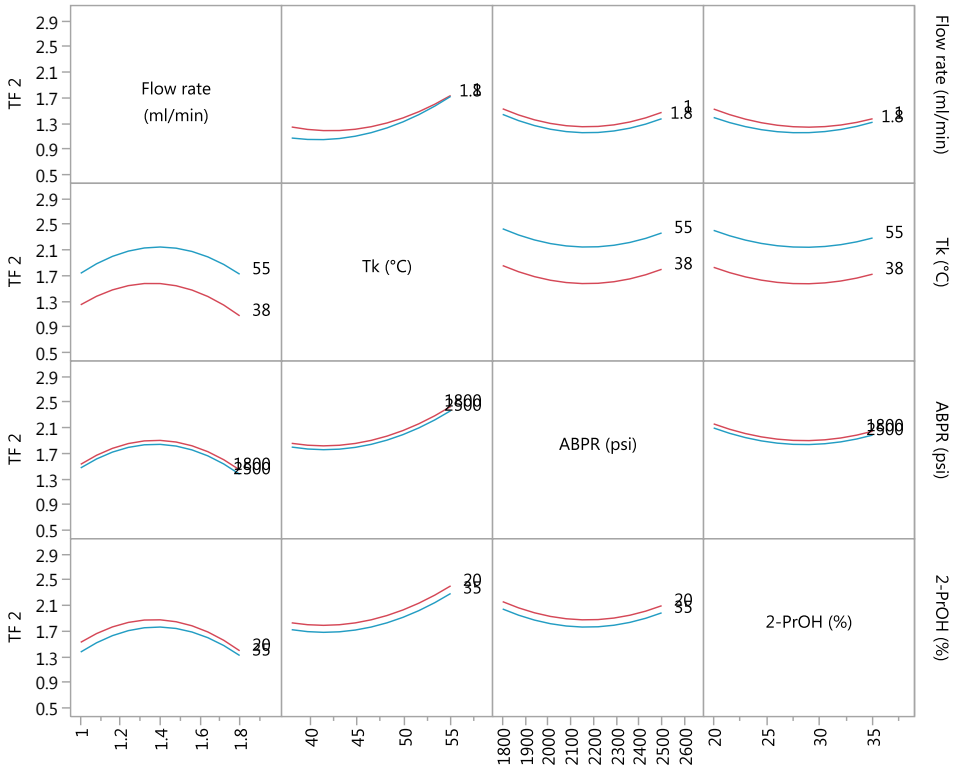



**Figure S5b** Interaction Profiles for TF 2



Solubility of Isoniazid and Rifabutin and respectable Log P values

| Solvent | Isoniazid (mg/ml) | Rifabutin (mg/ml) |
|---|---|---|
| Methanol | 1.9 | 13.3 |
| 2-propanol | 7.3 | 4.7 |
| Acetonitrile | 3.4 | 4.3 |
| n-heptane | 0.0 | 2.8 |
| n-methyl pyrrolidone | 98.4 | 7.0 |
| Ethanol | 8.1 | 4.3 |
| Benzyl alcohol | 30.4 | 5.9 |
| Dimethyl sulfoxide | >115.9 | 0.3 |
| H2O | 98.1 | 0.1 |
| Aqueous solvent pH 1.1 (0.1 N HCl) | 85.0 | 2.0 |
| Aqueous buffer pH 2.5 (citric buffer) | 108.1 | 2.9 |
| Aqueous buffer pH 4.0 (citric-phosphate buffer) | 75.3 | 0.7 |
| Aqueous buffer pH 6.8 (phosphate buffer) | 86.3 | 0.0 |
| Aqueous buffer pH 7.5 (phosphate buffer) | 89.2 | 0.1 |
| Log P | -0.7* | 4.1* |

* PubChem open-access data-base. U.S. National Library of Medicine, National Center for Biotechnology Information. 2018. https://pubchem.ncbi.nlm.nih.gov/compound/3767; https://pubchem.ncbi.nlm.nih.gov/compound/6323490. Assessed on 12 Dec 2018.