

Table S7.

Analysis of variance (ANOVA) for quadratic model fitting the experimental results of CCD

| Source | DF | Adj SS | Adj MS | F-Value | P-Value |
|-------------------|-----------|---------------|---------------|----------------|----------------|
| Model | 14 | 44.2263 | 3.1590 | 231.89 | 0.000 |
| Linear | 4 | 12.8915 | 3.2229 | 236.58 | 0.000 |
| G | 1 | 1.6391 | 1.6391 | 120.32 | 0.000 |
| B | 1 | 1.4289 | 1.4289 | 104.89 | 0.000 |
| H | 1 | 1.9597 | 1.9597 | 143.85 | 0.000 |
| A | 1 | 7.8639 | 7.8639 | 577.26 | 0.000 |
| Square | 4 | 4.3444 | 1.0861 | 79.73 | 0.000 |
| G*G | 1 | 0.7515 | 0.7515 | 55.17 | 0.000 |
| B*B | 1 | 0.2740 | 0.2740 | 20.11 | 0.000 |
| H*H | 1 | 2.8625 | 2.8625 | 210.12 | 0.000 |
| A*A | 1 | 0.0845 | 0.0845 | 6.20 | 0.024 |
| 2-Way Interaction | 6 | 26.9904 | 4.4984 | 330.22 | 0.000 |
| G*B | 1 | 0.4303 | 0.4303 | 31.59 | 0.000 |
| G*H | 1 | 16.8962 | 16.8962 | 1240.30 | 0.000 |
| G*A | 1 | 0.0352 | 0.0352 | 2.58 | 0.128 |
| B*H | 1 | 1.0847 | 1.0847 | 79.63 | 0.000 |
| B*A | 1 | 0.9264 | 0.9264 | 68.00 | 0.000 |
| H*A | 1 | 7.6176 | 7.6176 | 559.19 | 0.000 |
| Error | 16 | 0.2180 | 0.0136 | | |
| Lack-of-Fit | 10 | 0.1399 | 0.0140 | 1.07 | 0.487 |
| Pure Error | 6 | 0.0781 | 0.0130 | | |
| Total | 30 | 44.4443 | | | |