**Supplementary Material**

**Study of the activity and stability of sulfonated carbon catalyst from agroindustrial waste in biodiesel production: Influence of pyrolysis temperature on functionalization**

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Table S1 ― Raman analysis for biochars and catalysts: intensity of D and G bands.

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| --- | --- | --- | --- |
| **Sample** | **ID (u. a.)** | **IG (u. a.)** | **ID/IG** |
| BC450 | 260.04 | 491.67 | 0.53 |
| BC600 | 167.62 | 291.41 | 0.57 |
| BC750 | 50.69 | 69.87 | 0.73 |
| BC450-S | 127.16 | 207.97 | 0.61 |
| BC600-S | 9.39 | 15.62 | 0.60 |
| BC750-S | 39.44 | 51.17 | 0.77 |

Figure S1 ― TG/DTG plots for the catalysts after reuse: (a) BC450-S, (b) BC600-S and (c) BC750-S.

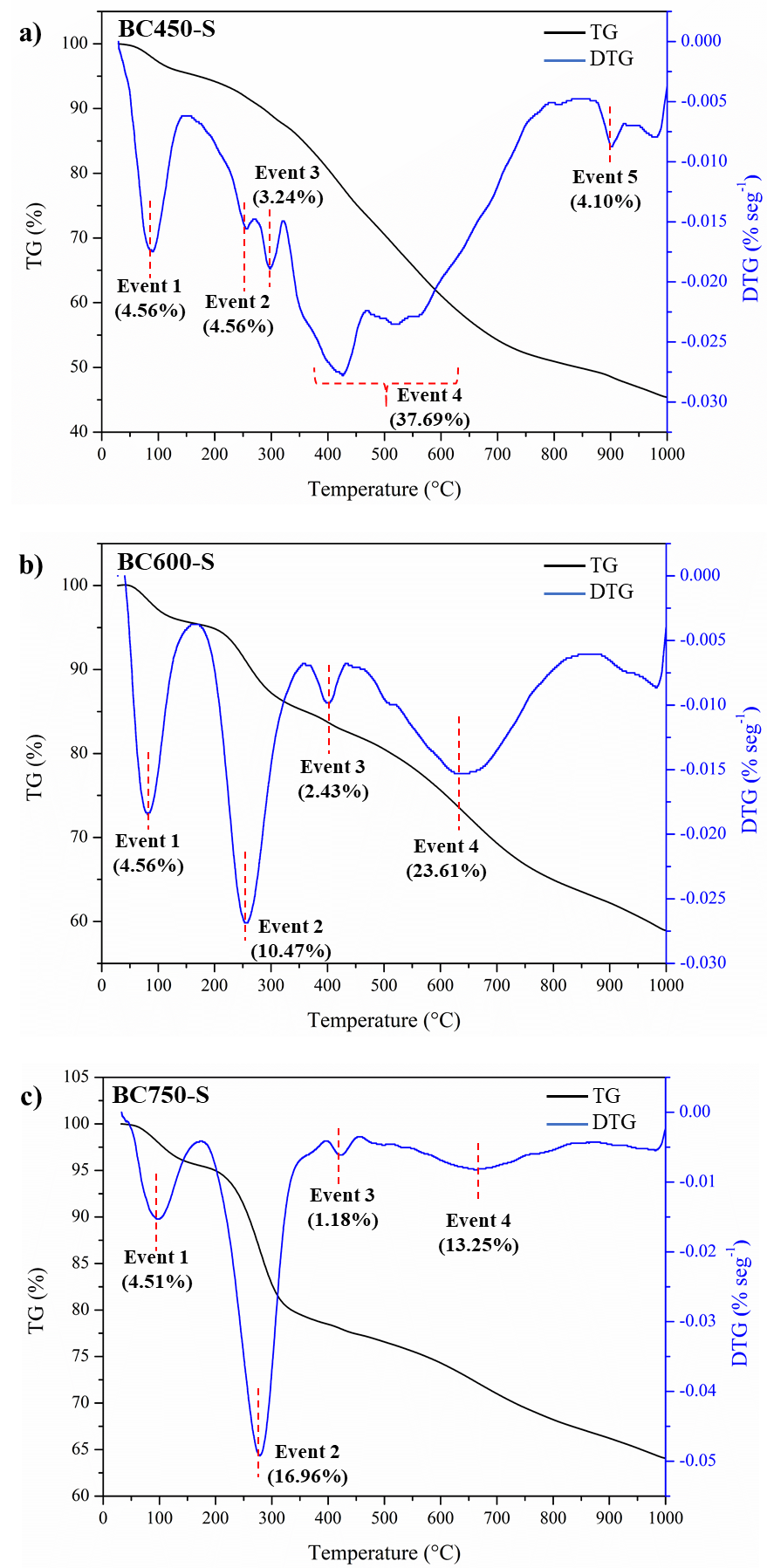
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Figure S2 ― Graphical analysis of the effects of temperature and time variables in the first reaction cycle of the catalysts: Percentage of effects in (a), (c) and (e), and Probability graph in (b), (d) and (f).

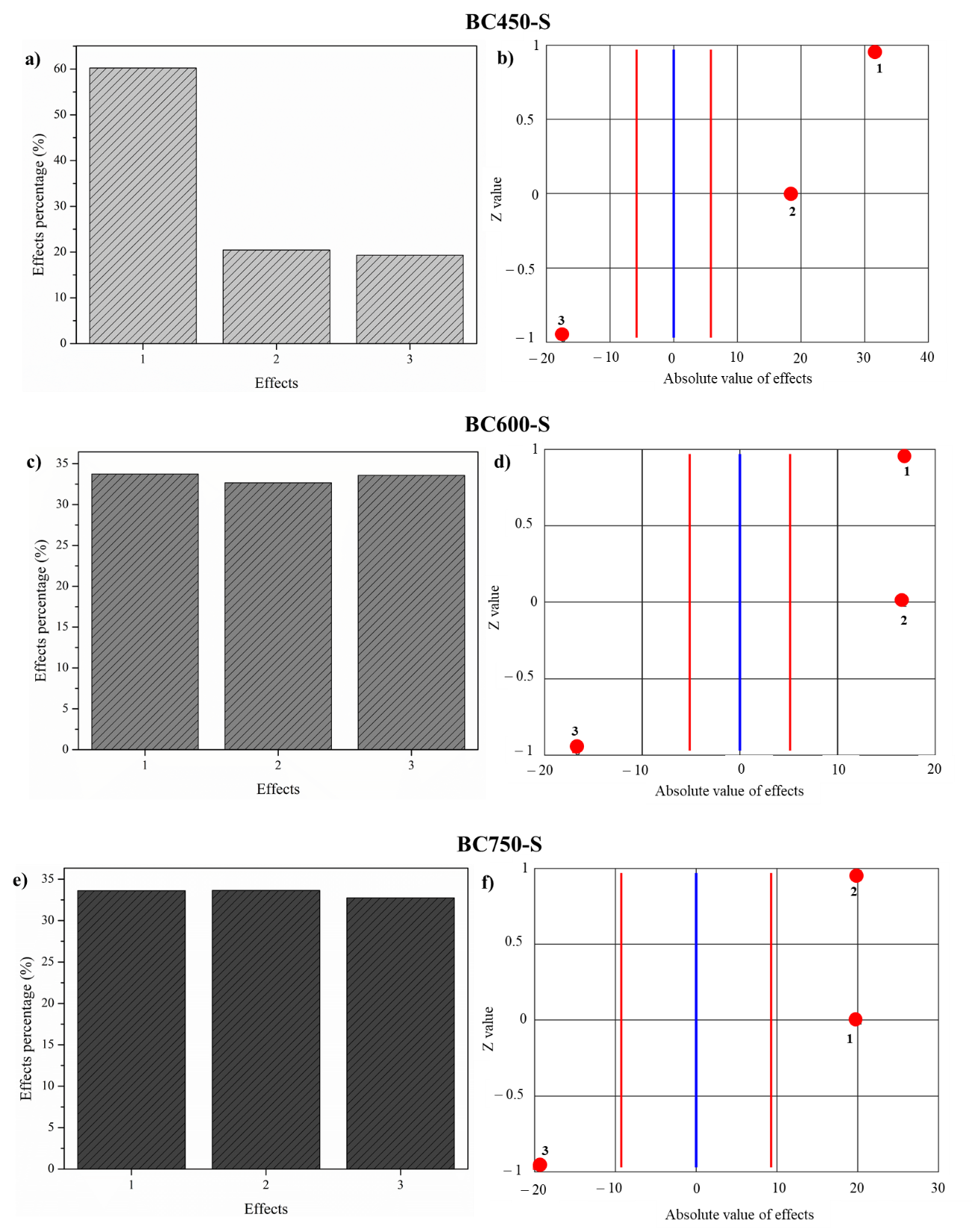


Figure S3 ― Graphical analysis of the effects of the temperature and time variables in the second reaction cycle of the catalysts: Percentage of effects in (a), (c) and (e) and Probability graph in (b), (d) and (f).

