**Supplementary Table 1:** The models whose optimal results were worse than ACSA statistically

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | V1 | V2 | z | p |
| 1 | ACO | ACSA | 11.786 | < .001 |
| 2 | ALO | ACSA | 3.330 | < .001 |
| 3 | BA | ACSA | 22.159 | < .001 |
| 4 | CSA | ACSA | 16.795 | < .001 |
| 5 | DO | ACSA | 5.876 | < .001 |
| 6 | EHO | ACSA | 8.728 | < .001 |
| 7 | FOX | ACSA | 5.493 | < .001 |
| 8 | JA | ACSA | 12.986 | < .001 |
| 9 | MFO | ACSA | 13.362 | < .001 |
| 10 | NMRA | ACSA | 5.384 | < .001 |
| 11 | PFA | ACSA | 9.826 | < .001 |
| 12 | PSO | ACSA | 10.593 | < .001 |
| 13 | STO | ACSA | 3.415 | < .001 |
| 14 | BBO | ACSA | 13.045 | < .001 |
| 15 | BMO | ACSA | 13.873 | < .001 |
| 16 | EOA | ACSA | 11.449 | < .001 |
| 17 | IWO | ACSA | 5.543 | < .001 |
| 18 | SOA | ACSA | 16.533 | < .001 |
| 19 | AOA | ACSA | 12.926 | < .001 |
| 20 | HC | ACSA | 9.123 | < .001 |
| 21 | TS | ACSA | 14.407 | < .001 |
| 22 | GCO | ACSA | 7.463 | < .001 |
| 23 | ASO | ACSA | 12.461 | < .001 |
| 24 | CDO | ACSA | 10.190 | < .001 |
| 25 | EFO | ACSA | 20.599 | < .001 |
| 26 | HGSO | ACSA | 18.140 | < .001 |
| 27 | SA | ACSA | 21.452 | < .001 |
| 28 | WDO | ACSA | 14.814 | < .001 |
| 29 | BSO | ACSA | 7.588 | < .001 |
| 30 | CA | ACSA | 5.522 | < .001 |
| 31 | CHIO | ACSA | 15.913 | < .001 |
| 32 | SSDO | ACSA | 11.963 | < .001 |
| 33 | CRO | ACSA | 10.288 | < .001 |
| 34 | DE | ACSA | 4.173 | < .001 |
| 35 | ES | ACSA | 9.700 | < .001 |
| 36 | FPA | ACSA | 10.756 | < .001 |
| 37 | GA | ACSA | 13.021 | < .001 |
| 38 | MA | ACSA | 19.065 | < .001 |
| 39 | FFA | ACSA | 2.848 | 0.004 |
| 40 | HHO | ACSA | 2.229 | 0.026 |
| 41 | WOA | ACSA | 2.082 | 0.037 |
| 42 | SCA | ACSA | 2.641 | 0.008 |

**Supplementary Table 2:** The models whose optimal results were better than ACSA statistically

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | V1 | V2 | z | p |
| 1 | SOS | ACSA | -5.678 | < .001 |
| 2 | FBIO | ACSA | -4.536 | < .001 |
| 3 | SARO | ACSA | -3.751 | < .001 |
| 4 | TLO | ACSA | -3.722 | < .001 |
| 5 | EO | ACSA | -3.693 | < .001 |

**Supplementary Table 3:** The Models whose optimal results are statistically insignificant and worse than ACSA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | V1 | V2 | z | p |
| 1 | ABC | ACSA | 1.006 | 0.314 |
| 2 | ARO | ACSA | 1.498 | 0.134 |
| 3 | BES | ACSA | 0.918 | 0.358 |
| 4 | SSO | ACSA | 0.203 | 0.839 |
| 5 | CGO | ACSA | 0.73 | 0.466 |
| 6 | AEO | ACSA | 0.566 | 0.571 |
| 7 | MVO | ACSA | 1.284 | 0.199 |
| 8 | LCO | ACSA | 1.350 | 0.177 |
| 9 | SPBO | ACSA | 1.752 | 0.080 |

**Supplementary Table 4:** The Models whose optimal results are statistically insignificant and better than ACSA

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | V1 | V2 | z | p |
| 1 | AVOA | ACSA | -0.683 | 0.494 |
| 2 | GOA | ACSA | -0.122 | 0.903 |
| 3 | GWO | ACSA | -1.282 | 0.200 |
| 4 | TDO | ACSA | -0.449 | 0.654 |
| 5 | ZOA | ACSA | -0.118 | 0.906 |
| 6 | SMA | ACSA | -0.759 | 0.448 |
| 7 | WHO | ACSA | -0.286 | 0.775 |
| 8 | NRO | ACSA | -0.849 | 0.396 |