Supplementary material S1. Organic matter content of the samples and values of gibbsite and kaolinite obtained by thermogravimety analysis (TGA).

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| --- | --- | --- | --- | --- |
| **Sample** | **Organic matter** | | **Gibbsite** | **Kaolinite** |
| **-----------------g kg-1-------------------** | | | |
| **Group 1** | |  | | |
| 1 | 95 | | 51.9 | 509.9 |
| 2 | 132 | | 38.4 | 438.1 |
| 3 | 56 | | 40.7 | 419.2 |
| **Mean** | 94 | | 43.7 | 455.7 |
| **SD** | 31 | | 5.9 | 39.1 |
| **Group 2** | | |  | |
| 4 | 81 | | 34.5 | 462.7 |
| 5 | 76 | | 67.5 | 561.6 |
| 6 | 73 | | 32.9 | 332.3 |
| 7 | 71 | | 34.8 | 356.0 |
| **Mean** | 75 | | 42.4 | 428.1 |
| **SD** | 4 | | 14.5 | 91.4 |
| **Group 3** | | | | |
| 8 | 94 | | 67.1 | 650.8 |
| 9 | 121 | | 72.5 | 583.6 |
| 10 | 74 | | 63.8 | 536.8 |
| 11 | 71 | | 44.7 | 454.5 |
| 12 | 63 | | 31.3 | 311.4 |
| 13 | 72 | | 67.1 | 572.1 |
| 14 | 71 | | 43.2 | 435.5 |
| 15 | 65 | | 34.1 | 321.6 |
| 16 | 50 | | 51.3 | 571.9 |
| 17 | 62 | | 10.6 | 236.9 |
| 18 | 98 | | 29.0 | 333.4 |
| 19 | 48 | | 44.0 | 438.8 |
| 20 | 43 | | 23.8 | 357.7 |
| 21 | 41 | | 24.3 | 228.1 |
| **Mean** | 70 | | 43.4 | 430.9 |
| **SD** | 22 | | 18.4 | 131.8 |
| **Group 4** | | |  | |
| 22 | 31 | | 21.8 | 314.0 |
| 23 | 52 | | 49.5 | 748.6 |
| 24 | 29 | | 50.3 | 429.4 |
| **Mean** | 37 | | 40.5 | 497.3 |
| **SD** | 10 | | 13.2 | 183.8 |
| **General Mean** | 70.3 | | 42.9 | 441.9 |
| **General SD** | 25.2 | | 16.1 | 128.3 |

SD=Standard Deviation.