Supplement. Results of the 14C concentration measurements expressed as pMC for the 10 analyzed types of disposable packaging. All results were corrected for isotope fractionation by δ13C ,measured by AMS. Total carbon percentages measured in VarioMicroCube Elemental Analyzer (EA) coupled to an AGE-3 graphitization system are also given.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Sample code** | **Material** | **Subsample** | **Lab code** | **Total Carbon (%)** | **14C conc.****(pMC)** | **δ13CAMS****‰** |
| 1. | QSCP-1 | Sugar cane plates | Random | GdA-6805.1.1 | 41.74 ± 0.40 | 100.54 ± 0.34 | -18.94 |
| Outer layer | GdA-6805.2.1 | 42.47 ± 0.69 | 99.74 ± 0.32 | -16.00 |
| Inner layer | GdA-6805.3.1 | 42.41 ± 0.64 | 100.11 ± 0.32 | -15.80 |
| Mixed layers | GdA-6805.4.1 | 42.53 ± 0.73 | 99.42 ± 0.33 | -17.40 |
| Carbonized | GdA-6805.5.1 | 91.25 ± 1.83 | 100.29 ± 0.33 | -23.50 |
| 2. | QPC-2 | Paper cups | Random | GdA-6806.1.1 | 42.30 ± 0.42 | 100.61 ± 0.34 | -25.74 |
| Outer layer | GdA-6806.2.1 | 49.24 ± 0.93 | 105.46 ± 0.33 | -21.10 |
| GdA-6806.2.2 | 93.95 ± 0.28 | -21.5 |
| GdA-6806.2.4 | 97.72 ± 0.29 | -22.0 |
| Inner layer | GdA-6806.3.1 | 44.14 ± 0.52 | 114.47 ± 0.36 | -25.70 |
| GdA-6806.3.2 | 114.47 ± 0.31 | -26.4 |
| GdA-6806.3.3 | 114.69 ± 0.33 | -27.3 |
| Mixed layers | GdA-6806.4.1 | 45.31 ± 0.95 | 108.37 ± 0.34 | -22.70 |
| GdA-6806.4.2 | 106.07 ± 0.30 | -24.1 |
| GdA-6806.4.3 | 107.81 ± 0.32 | -25.8 |
| Carbonized | GdA-6806.5.1 | 90.82 ± 1.08 | 113.7 ± 0.36 | -32.10 |
| 3. | QBP-3 | Baking paper | Random 1 | GdA-6807.1.1 | 41.71 ± 0.37 | 107.22 ± 0.34 | -25.51 |
| Random 2 | GdA-6807.2.1 | 42.41 ± 0.64 | 106.71 ± 0.34 | -26.20 |
| Carbonized | GdA-6807.3.1 | 87.38 ± 0.93 | 107.81 ± 0.35 | -31.80 |
| 4. | QPS-4 | Paper straws | Random | GdA-6808.1.1 | 43.55 ± 0.55 | 103.53 ± 0.34 | -25.74 |
| Outer layer | GdA-6808.2.1 | 44.47 ± 0.73 | 100.04 ± 0.33 | -25.90 |
| Inner layer | GdA-6808.3.1 | 44.28 ± 0.68 | 101.47 ± 0.33 | -26.20 |
| Mixed layers | GdA-6808.4.1 | 44.95 ± 0.52 | 98.21 ± 0.33 | -25.50 |
| Carbonized | GdA-6808.5.1 | 87.16 ± 2.65 | 108.46 ± 0.35 | -31.40 |
| 5. | QPP-5 | Paper plates | Random | GdA-6809.1.1 | 42.12 ± 0.41 | 112.00 ± 0.34 | -25.65 |
| Outer layer | GdA-6809.2.1 | 40.38 ± 0.12 | 111.41 ± 0.36 | -24.60 |
| Inner layer | GdA-6809.3.1 | 44.26 ± 0.37 | 111.92 ± 0.36 | -25.90 |
| Mixed layers | GdA-6809.4.1 | 42.98 ± 0.42 | 111.64 ± 0.36 | -25.00 |
| Carbonized | GdA-6809.5.1 | 69.74 ± 2.52 | 111.24 ± 0.36 | -30.60 |
| 6. | QWC-6 | Wooden cutlery | Random | GdA-6810.1.1 | 46.02 ± 0.43 | 123.44 ± 0.34 | -26.49 |
| Fork | GdA-6810.2.1 | 47.05 ± 1.19 | 136.53 ± 0.42 | -26.00 |
| Knife | GdA-6810.3.1 | 45.12 ± 3.03 | 114.72 ± 0.37 | -26.20 |
| Mixed fork & knife | GdA-6810.4.1 | 46.70 ± 1.35 | 129.7 ± 0.40 | -26.20 |
| Carbonized | GdA-6810.5.1 | 92.50 ± 3.43 | 121.77 ± 0.39 | -35.20 |
| 7. | QBPP-7 | Brown paper plates | Random | GdA-6811.1.1 | 44.11 ± 0.25 | 108.13 ± 0.34 | -26.21 |
| Outer layer | GdA-6811.2.1 | 44.15 ± 0.64 | 108.11 ± 0.35 | -25.80 |
| Inner layer | GdA-6811.3.1 | 45.86 ± 0.77 | 107.22 ± 0.36 | -25.20 |
| Mixed layers | GdA-6811.4.1 | 44.67 ± 0.19 | 108.35 ± 0.35 | -24.80 |
| Carbonized | GdA-6811.5.1 | 90.90 ± 1.65 | 109.63 ± 0.28 | -31.30 |
| 8. | VWBP-8 | Wheat bran plates | Random | GdA-6812.1.1 | 44.22 ± 1.02 | 101.35 ± 0.34 | -27.84 |
| Outer layer | GdA-6812.2.1 | 43.56 ± 0.63 | 100.92 ± 0.29 | -27.60 |
| Inner layer | GdA-6812.3.1 | 43.39 ± 0.52 | 100.86 ± 0.29 | -27.50 |
| Mixed layers | GdA-6812.4.1 | 43.52 ± 0.56 | 100.81 ± 0.29 | -27.00 |
| Carbonized | GdA-6812.5.1 | 65.99 ± 1.25 | 100.72 ± 0.29 | -32.10 |
| 9. | BSCB-9 | Sugar cane boxes | Random | GdA-6813.1.1 | 43.01 ± 1.01 | 100.02 ± 0.34 | -14.72 |
| Outer layer | GdA-6813.2.1 | 43.26 ± 0.13 | 100.14 ± 0.29 | -13.90 |
| Inner layer | GdA-6813.3.1 | 43.28 ± 0.15 | 100.54 ± 0.29 | -14.50 |
| Mixed layers | GdA-6813.4.1 | 43.32 ± 0.12 | 100.64 ± 0.29 | -14.10 |
| Carbonized | GdA-6813.5.1 | 91.31 ± 0.12 | 99.89 ± 0.29 | -21.50 |
| 10. | BPP-10 | Paper plates | Random | GdA-6814.1.1 | 43.14 ± 0.14 | 111.98 ± 0.34 | -25.62 |
| Outer layer | GdA-6814.2.1 | 44.79 ± 0.30 | 110.98 ± 0.29 | -26.00 |
| Inner layer | GdA-6814.3.1 | 45.10 ± 0.12 | 111.54 ± 0.29 | -25.40 |
| Mixed layers | GdA-6814.4.1 | 45.09 ± 0.11 | 111.32 ± 0.28 | -25.10 |
| Carbonized | GdA-6814.5.1 | 94.97 ± 3.77 | 111.71 ± 0.29 | -33.30 |