**Supporting Information**

**Biodegradation of biodiesel oil by *Cellulosimicrobium* sp. isolated**

from Colombian Caribbean soil

Authors

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**Table S1**. Two-Way ANOVA (Tukey's multiple comparisons test) for degradation rate of the n-alkanes (Rd %) of the control and bacterial inoculum by of biodiesel-oil component.

| **Biodiesel alkanes and esters** | **Comparison of Rd (%) between the Control and Strains** | **Mean Difference** | **q** | ***P*** | **S** |
| --- | --- | --- | --- | --- | --- |
| **Undecane** | CONTROL vs. BBCOL001 | -74.9 | 11.06 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -100.0 | 14.76 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -71.9 | 10.61 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | -25.1 | 3.71 | <0.05 | \* |
| BBCOL001 vs. BBCOL003 | 3.0 | 0.45 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 28.1 | 4.15 | <0.05 | \* |
| **Dodecane** | CONTROL vs. BBCOL001 | -89.8 | 13.26 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -80.8 | 11.92 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -91.5 | 13.51 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 9.1 | 1.34 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | -1.7 | 0.25 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | -10.8 | 1.59 | > 0.05 | ns |
| **Tridecane** | CONTROL vs. BBCOL001 | -74.8 | 11.04 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -73.2 | 10.81 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -69.2 | 10.22 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 1.6 | 0.24 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 5.6 | 0.83 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 4.0 | 0.59 | > 0.05 | ns |
| **Tetradecane** | CONTROL vs. BBCOL001 | -80.3 | 11.85 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -80.0 | 11.81 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -76.4 | 11.28 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 0.3 | 0.04 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 3.9 | 0.57 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 3.6 | 0.53 | > 0.05 | ns |
| **Pentadecane** | CONTROL vs. BBCOL001 | -82.1 | 12.12 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -81.2 | 11.99 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -76.5 | 11.29 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 0.9 | 0.13 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 5.6 | 0.83 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 4.8 | 0.70 | > 0.05 | ns |
| **Hexadecane** | CONTROL vs. BBCOL001 | -85.8 | 12.66 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -84.8 | 12.52 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -78.7 | 11.61 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 1.0 | 0.14 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 7.1 | 1.05 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 6.1 | 0.91 | > 0.05 | ns |
| **Heptadecane** | CONTROL vs. BBCOL001 | -83.2 | 12.28 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -82.1 | 12.13 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -78.5 | 11.58 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 1.1 | 0.16 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 4.7 | 0.70 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 3.7 | 0.54 | > 0.05 | ns |
| **Octadecane** | CONTROL vs. BBCOL001 | -81.7 | 12.07 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -83.0 | 12.26 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -80.0 | 11.81 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | -1.3 | 0.19 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 1.7 | 0.26 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 3.0 | 0.45 | > 0.05 | ns |
| **Nonadecane** | CONTROL vs. BBCOL001 | -83.0 | 12.25 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -83.7 | 12.35 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -80.4 | 11.87 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | -0.7 | 0.10 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 2.6 | 0.38 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 3.3 | 0.48 | > 0.05 | ns |
| **Hexadecanoic acid. methyl ester (Methyl palmitate)** | CONTROL vs. BBCOL001 | -76.0 | 11.22 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -70.1 | 10.35 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -65.1 | 9.61 | < 0.05 | \* |
| BBCOL001 vs. BBCOL002 | 5.9 | 0.87 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 10.9 | 1.61 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 5.0 | 0.74 | > 0.05 | ns |
| **Eicosane** | CONTROL vs. BBCOL001 | -84.7 | 12.50 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -83.6 | 12.34 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -81.2 | 11.98 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 1.1 | 0.16 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 3.5 | 0.52 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 2.4 | 0.36 | > 0.05 | ns |
| **9-Octadecenoic acid (Z)-. methyl ester (Methyl oleate)** | CONTROL vs. BBCOL001 | -93.8 | 13.84 | < 0.05 | \* |
| CONTROL vs. BBCOL002 | -92.5 | 13.66 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -64.9 | 9.58 | < 0.05 | \* |
| BBCOL001 vs. BBCOL002 | 1.2 | 0.18 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 28.9 | 4.27 | <0.05 | \* |
| BBCOL002 vs. BBCOL003 | 27.7 | 4.08 | <0.05 | \* |
| **Heneicosane** | CONTROL vs. BBCOL001 | -82.8 | 12.23 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -80.5 | 11.88 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -77.2 | 11.40 | <0.05 | \* |
| BBCOL001 vs. BBCOL002 | 2.3 | 0.34 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 5.6 | 0.83 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 3.3 | 0.49 | > 0.05 | ns |
| **Docosane** | CONTROL vs. BBCOL001 | -85.1 | 12.56 | <0.05 | \* |
| CONTROL vs. BBCOL002 | -84.8 | 12.51 | <0.05 | \* |
| CONTROL vs. BBCOL003 | -87.0 | 12.84 | < 0.05 | \* |
| BBCOL001 vs. BBCOL002 | 0.3 | 0.05 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | -1.9 | 0.28 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | -2.2 | 0.32 | > 0.05 | ns |
| **Tricosane** | CONTROL vs. BBCOL001 | -96.7 | 14.28 | < 0.05 | \* |
| CONTROL vs. BBCOL002 | -87.7 | 12.94 | < 0.05 | \* |
| CONTROL vs. BBCOL003 | -94.0 | 13.87 | < 0.05 | \* |
| BBCOL001 vs. BBCOL002 | 9.0 | 1.33 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 2.7 | 0.40 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | -6.3 | 0.93 | > 0.05 | ns |
| **Tetracosane** | CONTROL vs. BBCOL001 | -80.2 | 11.84 | < 0.05 | \* |
| CONTROL vs. BBCOL002 | -78.6 | 11.60 | < 0.05 | \* |
| CONTROL vs. BBCOL003 | -76.1 | 11.23 | < 0.05 | \* |
| BBCOL001 vs. BBCOL002 | 1.6 | 0.24 | > 0.05 | ns |
| BBCOL001 vs. BBCOL003 | 4.1 | 0.60 | > 0.05 | ns |
| BBCOL002 vs. BBCOL003 | 2.5 | 0.36 | > 0.05 | ns |

\* Highly significant statistical differences at *P* < 0.05; ns = Not significant at *P* < 0.05,

ANOVA= Analysis of variance. S= Statistical significance