

Table S-2 Lignin content and removal determined by semi-quantitative and quantitative ^{13}C -IS py-GC-MS of control and fungal-treated wheat straw after 7 weeks of fungal growth *Cs* *Ceriporiopsis subvermispora*, *Pe* *Pleurotus eryngii*, *Le* *Lentinula edodes*. Average and standard deviation of analytical triplicates on pooled biological triplicates.

| | Control | Cs1 | Cs12 | Pe3 | Pe6 | Le8 | Le10 |
|----------------------------------|----------------|------------|-------------|------------|------------|------------|-------------|
| Dry matter (g) | 90.2 ± 0.3 | 84.4 ± 0.4 | 89.4 ± 0.2 | 87.3 ± 0.1 | 88.0 ± 0.2 | 83.7 ± 1.4 | 84.6 ± 3.0 |
| Lignin content (% w/w) | | | | | | | |
| semi-quant | 30.5 ± 1.4 | 8.6 ± 0.4 | 9.3 ± 0.8 | 16.2 ± 1.2 | 15.6 ± 0.2 | 10.9 ± 0.9 | 12.2 ± 0.2 |
| ^{13}C -IS quant | 23.2 ± 0.8 | 8.3 ± 0.3 | 9.3 ± 0.3 | 13.7 ± 0.7 | 15.6 ± 1.0 | 10.3 ± 0.4 | 10.5 ± 0.2 |
| Lignin removal (% w/w) | | | | | | | |
| semi-quant | - | 73.7 ± 5.0 | 69.7 ± 6.5 | 48.6 ± 4.2 | 50.1 ± 2.4 | 66.8 ± 6.4 | 62.6 ± 3.8 |
| ^{13}C -IS quant | - | 66.4 ± 3.5 | 60.3 ± 3.0 | 43.0 ± 2.6 | 34.6 ± 2.6 | 58.8 ± 3.1 | 57.4 ± 3.2 |