

TABLE 5.3. Percentage removal of 100% and 50% leachate BOD₅, COD, NH₃-N and pH changes by *Ganoderma australe* immobilized on Ecomat at weekly intervals for 28 days incubated at room temperature, shaking at 150 rpm.

| Incubation Time | Parameters | Levels in Untreated Leachate | | Levels in Treated Leachate | | Percentage Removed (-), Increased (+) | |
|-----------------|---------------------------|------------------------------|----------|----------------------------|------------------|---------------------------------------|--------|
| | | 100% | 50% | 100% | 50% | 100% | 50% |
| Day 7 | BOD ₅ (mg/l) | 11246.00 | 10236.00 | 1511.46 ± 20.08 | 3093.32 ± 80.08 | -86.56 | -69.78 |
| | COD (mg/l) | 14400.00 | 13400.00 | 11145.60 ± 898.81 | 9066.44 ± 157.78 | -22.60 | -32.34 |
| | NH ₃ -N (mg/l) | 16.50 | 18.50 | 25.97 ± 1.82 | 20.50 ± 1.41 | +57.39 | +10.81 |
| | pH | 7.85 | 7.85 | 8.91 ± 0.14 | 8.93 ± 0.20 | - | - |
| Day 14 | BOD ₅ (mg/l) | 11226.00 | 10214.00 | 1035.04 ± 97.98 | 2131.66 ± 61.17 | -90.78 | -79.13 |
| | COD (mg/l) | 13367.00 | 13142.00 | 10228.43 ± 119.16 | 8384.60 ± 54.41 | -23.48 | -36.20 |
| | NH ₃ -N (mg/l) | 17.30 | 18.35 | 28.87 ± 0.54 | 26.87 ± 1.10 | +66.88 | +46.43 |
| | pH | 7.90 | 7.74 | 8.99 ± 0.13 | 8.92 ± 0.11 | - | - |
| Day 21 | BOD ₅ (mg/l) | 11216.00 | 10436.00 | 988.13 ± 27.86 | 1965.10 ± 67.95 | -91.19 | -81.17 |
| | COD (mg/l) | 13678.00 | 12876.00 | 11433.44 ± 503.22 | 7769.88 ± 34.96 | -16.41 | -39.66 |
| | NH ₃ -N (mg/l) | 17.80 | 19.10 | 36.33 ± 0.75 | 37.67 ± 0.86 | +104 | +97.23 |
| | pH | 7.84 | 7.82 | 9.07 ± 0.15 | 8.91 ± 0.05 | - | - |
| Day 28 | BOD ₅ (mg/l) | 10700.00 | 10542.00 | 739.37 ± 13.14 | 1942.89 ± 218.95 | -93.09 | -81.57 |
| | COD (mg/l) | 13615.00 | 12435.00 | 11186.08 ± 733.80 | 6881.53 ± 38.60 | -17.84 | -44.66 |
| | NH ₃ -N (mg/l) | 17.10 | 18.02 | 24.90 ± 1.82 | 29.82 ± 1.28 | +45.61 | +65.48 |
| | pH | 7.88 | 7.90 | 9.20 ± 0.06 | 8.75 ± 0.06 | - | - |

– indicates reduced (removed); + indicates increased.

values expressed are means ± S.D. of triplicate measurements.