TABLE IV. Evaluation of the denitrification capacity and bacterial behavior of the ANN prediction

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Incubation  time  [hours] | Selected  bacterial  strain | Denitrification indicators | | | | | |
| Biomass  production  [McFarland No.] | N2 gas  production  [+/-] | Concentration [mg/L] | | Formation [+/-] | |
| Nitrate | Nitrite | Nitrite | Ammonia |
| 36  (predicted) | I3 | 3.000 | 1.000 | 500.000 | 79.539 | 1.000 | 0.009 |
| II6 | 0.298 | 1.000 | 329.211 | 46.545 | 0.589 | 0.008 |
| III1 | 2.999 | 1.000 | 500.000 | 79.828 | 1.000 | 0.000 |
| IV1 | 3.000 | 1.000 | 500.000 | 79.989 | 0.128 | 0.005 |
| 36  (experimental) | I3 | 3 | 1 | 500 | 80 | 1 | 0 |
| II6 | 0 | 1 | 250\* | 40 | 0\* | 0 |
| III1 | 2\* | 1 | 500 | 80 | 1 | 0 |
| IV1 | 3 | 1 | 500 | 80 | 0 | 0 |
| 60  (predicted) | I3 | 3.000 | 1.000 | 500.000 | 80.000 | 1.000 | 0.010 |
| II6 | 0.017 | 0.832 | 64.527 | 1.854 | 0.012 | 0.000 |
| III1 | 2.992 | 1.000 | 499.999 | 71.656 | 1.000 | 0.006 |
| IV1 | 3.000 | 1.000 | 489.410 | 79.479 | 1.000 | 0.261 |
| 60  (experimental) | I3 | 3 | 1 | 500 | 80 | 1 | 0 |
| II6 | 0 | 1 | 50 | 1 | 0 | 0 |
| III1 | 3 | 1 | 500 | 80 | 1 | 0 |
| IV1 | 3 | 1 | 500 | 80 | 1 | 0 |

\* the experimental value which is different relative to the predicted value