**Abstract No:**

|  |  |
| --- | --- |
| **Title** | **Constructed wetland for bioremediation and bioenergy generation from biomass recycling** |
| **Authors list** | Gotore Obey 1, Kazuya Shimizu 2, Norio Iwami 3, Tomoaki Itayama 1,4\* |
| **Affiliations** | 1Graduate School of Engineering, Nagasaki University, Nagasaki, 852-8131, Japan.2School of Life and Environmental Science, University of Tsukuba, Tsukuba, Ibaraki, 305-0006, Japan3Faculty of Life Sciences, Toyo University, Izumino Oura-gun, Itakura, Gunma, 374-0193, Japan4School of Science and Engineering, Meisei University, Hino, Tokyo, 191-8506, Japan |
| **Corresponding Authors detail:** | Tomoaki Itayama, Graduate School of Engineering, Nagasaki University, Nagasaki, 852-8131, Japan. (E-mail: itayama@nagasaki-u.ac.jp) |
| **Abstract**(**Limited to 500 words**) |  The enrichment culture of each isolated rotifer was separately carried out using toxic Microcystis cell suspension as food source. The partial sequence of 18S rRNA gene of each isolated rotifer was determined by a cloning method. Because the obtained four sequences showed the same sequence, one consensus sequence of the isolated Bdelloid rotifer was compared to the rotifer sequences in GenBank of NCBI by BLAST search. As a result, *Philodina acuticornis* was found as a similar species to the isolated rotifer. Then we designed a new forward primer and reverse primer for real-time PCR of Bdelloid rotifer. We succeeded in quantifying the gene copy number of Bdelloid rotifer samples isolated from the MBR with different populations by the real-time PCR using the newly designed primer pairs. |
| **Keywords****(Maximum 6 words)** | Bioremediation, Biomass, Boenergy, Real-time PCR |

|  |
| --- |
| **Graphical Abstract**  |
|  |

**Authors Information:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Author order** | **Authors** **Full Name**  | **Author’s Highest Educational Degree****(BS/MS/PhD)** | **Author’s Affiliations** | **Author’s E-mail ID** |
| 1 | Gotore Obey | MS | Graduate School of Engineering, Nagasaki University, Nagasaki, 852-8131, Japan | bb52219490@ms.nagasaki-u.ac.jp  |
| 2 | Kazuya Shimizu | PhD | School of Life and Environmental Science, University of Tsukuba, Tsukuba, Ibaraki, 305-0006, Japan | shimizu.kazuya.fn@u.tsukuba.ac.jp  |
| 3 | Norio Iwami | PhD | School of Science and Engineering, Meisei University, Hino, Tokyo, 191-8506, Japan | iwami@es.meisei-u.ac.jp |
| 4 | Tomoaki Itayama | PhD | Graduate School of Engineering, Nagasaki University, Nagasaki, 852-8131, Japan. | itayama@nagasaki-u.ac.jp |
| 5 |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |