**EXTENDED ABSTRACT REVIEW FORM**

AUN-SEED/Net 2017 Regional Conference on Environmental Engineering (RC-EnvE2017)

**“Environmental Protection toward Green Development”**

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**Manuscript Information**

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| --- | --- |
| ID | 87 |
| Extended Abstract Title | Development of a microbial indicator to monitor soil bioremdiation: the respiratory quotient |

**Your extended abstract has been ACCEPTED with Advices and /or Comments to the authors if any**

**Introduction :**

* The objectives of this study is not clear, please clarify it.
* ‘RQ’ must be define for the first use.

**Materials and method :**

* There are various aliphatic hydrocarbons that can be used to characterize the aliphatic hydrocarbon contaminants, why did the authors select hexadecane for this research ?
* Soil bioremediaion process depends on the composition of soil or soil quality. Bioremediation process depends on the composition of soil or soil quality. Bioremediation process which occurs in soil containing high quantiy or organic compounds will be different from those with low organic contents. Please explain scientific basis of the selecting the soil from natural field as the target of this study?
* The first microcosms’ experiments, the authors investigate the effect of five gravimetric water contents to gas activities and residual hexadecane concentration. Why did the authors spiked C,N,P to the experiment? and why did you select the C:N:P ratio of 100:10:1 ? What is the role of C,N,P in this experiment?
* How much volume of soil was used for soil microcosms’ experiments at three conditions of nutrient ? and what ratio of hexadecane and nutrient was used for this experiment ?
* Do the authors use the same amount of hexadecane (5.8 mg/g-dry soil) for both experiments ?

**Results and conclusions :**

* There is no mark (a) or (b) or (c) or (d) on the Fig.1, Fig.2 and Fig.3. Please add the X axis title of Fig.1.
* The X axis titles in all figures could be unified. The figures, especially the titles and labels were too small and not easy to read. Please revise them.
* What does « Abiotic – 15% » at Fig.1 mean?
* Please describe H1, H2, HN1, HN2, HNP1 and HNP2 in Fig. 3.
* Please clarify the differences on the mechanism of hydrocarbon biodegradation in soil between the first and second microcosms’ experiments ?
* Why don’t the authors investigate the stimultaneous effects of water contents and nutrient to gas activities and residual hexadecane concentration in biodgradation process in soil?
* The objectives and conclusions must be linked to each other.