Manuscript of Alshawabkeh and co-workers reports the use of granular active carbon as cathode in order to generate hydrogen peroxide and, in the presence of metal ion, Fenton process leads to the formation of hydroxylic radical. This system has been employed to reduce the amount of *E.coli* in the water.

The topic is interesting, the paper is well written but some points (reported below) need to be addressed before the publication. However, I think that the manuscript is not tuned with the scope of the Journal.

Answer: We greatly appreciate the reviewer's recognition of the value of our study. Especially, we thank the reviewer for his/her insight on the positive comment on the novelty and written language. Please accept our sincere gratitude.

Catalysts journal is appreciated to cover a wide range of aspects of catalysis, such as computational catalysis, nano material, organic synthesis, and electrocatalysis, etc. Environmental catalysis is definitely a necessary aspect of Catalysts journal, and has been enlisted into the topic theme in the submission system. For example, several pertinent studies on the synthesis of photo- or electro-catalysts have been published in Catalysts journal [1-6]. Our study belongs to the environmental catalysis, and more specifically electrochemical advanced oxidation processes (EAOPs). Our used granular activated carbon (GAC) is the catalyst to generate H_2O_2, and the performance of GAC is the focus of this study. From this perspective, we believe our study well fits the scope of Catalysts journal.

We appreciate the comments from the reviewer, and would like to try our best to solve other concerns. Please see our item-to-item response below.

· Line 58: please, explain SHE

Answer: We have included the full name for SHE abbreviation. Please see line 60 for highlighted section.

· In Table 1, how the yield of H_2O_2 has been calculated?

Answer: The yield of H_2O_2 was determined via a colorimetric method after complexing with titanium sulfate. We have included such description in line 376-378. Please see highlighted section.

· In many graphs, the log missing in the scale. In addition, in Fig.1 the symbol of radical missing.

Answer: We appreciate the comments from the reviewer. The radical symbol has been supplemented in Figure 1-4. Please see updated figures. However, please note that, although in many graphs the scales of *E. coli* survival rate were plotted in log-interval, they indeed represented percentage values. For example, in Figure 2, the log-change of 100% to 10% and 10% to 1% are both 1-log, and they are expressed by an equal distance

on the Y-axis. This expression has been widely used in many bacterial inactivation assays [7-9], and is more visually straightforward and readable than log-expression.

· By using the method here described, a concentration of Fe^{2+} from 0.05 to 0.4 mM is required. Is this iron concentration allowed in the common water?

Answer: We thank the reviewer for this question. Advanced oxidation processes (AOPs) have been widely used in water treatment industry. Among AOPs, the most widely and classical one is the Fenton reaction (Fe^{2+}/H_2O_2), wherein similar dose of iron ion as in our study is put into the treated water. It is correct that this amount of iron ion will produce iron sludge at the final neutralization stage. A streamlined water treatment plant contains many units, including flocculation, sedimentation, and filtration, etc. These units could be used to remove the generated iron sludge [10-12]. Besides, instead of homogeneous iron ion, other catalytically active nanocatalysts, such as iron-bearing minerals and clays [13-15], could be used to avoid iron sludge formation. Overall, in our study, we aim to suggest the possibility of this electro-Fenton platform for water disinfection purpose, and treatment of iron sludge has been well-established.

· Please, explain also the meaning of CFU

Answer: We have included the meaning of CFU in line 354-355. Please see the highlighted section.

· Line 174: where is eq. 10 in the main text?

Answer: Eq. 10 was included in line 428. Please kindly check.

· In paragraph 2.4, the authors are invited to measure the pH of the solution after the addition of carbonate ions.

Answer: We are sorry for not making it clear. The solution pH after addition of carbonate ions was adjusted to pH 7. So reaction solution started with pH 7. Please kindly see line 256-257 for detailed description.

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