

Reviewer comments:

In this paper, antiviral and antibacterial activities have been investigated for a series of penta-1, 4-diene-3-one derivatives containing a 1, 2, 4-triazine moiety. A series of novel curcumin compounds have been synthesized and exhibited remarkable activities against plant virus and bacterial, and the activities were comparable to the existing drug bismethiazol and ningnanmycin. And molecular docking studies for **4a** with tobacco mosaic virus coat protein (TMV-CP) have been conducted. The authors have also described the synthesis of analogues in detail, and are reliable. References are properly introduced, including recent ones. Overall, this work broadened the scope of application of curcumin and provided reliable support for the development of novel agrochemicals. As a result, this paper deserves publication in the journal Peer J after following revise.

The comments are as follows:

1. There are some grammar problems in the article that need to be carefully corrected, for example the sentence “In addition, tobacco mosaic virus (TMV) can cause more than 885 plants to infected the virus, resulting in a worldwide loss of \$100 million worldwide.”;
2. The first letter of each sentence should be capitalized. Please carefully check the upper and lower case of the text;
3. In the Line 28 and 29: **BT** and **TC** first appeared, should be give full name;
4. In the Line 91: the sentence “A synthetic route to 1,4-pentadien-3-one derivatives containing a triazine moiety was designed and is shown in **Scheme 1**.” tenses should be consistent;
5. In the Line 116: “Molecular docking.” should be delete;
6. In the article, author should pay attention to the **Tables** and **Figures** should be unified format;
7. The sentence “**Table 1**. Inhibition effect of the sme title compounds against Xoo, R.s and Xac.
a” pay attention to spelling;
8. **Figure 5** sick spots can't be seen clearly, please provide a clear picture;
9. **Figure 6** of docking research the caption for the interaction is too small. A correction is necessary for the descriptions of “Conventional Hydrogen Bond”, “Carbon Hydrogen Bond”, “Pi-Sulfur”, “Pi-Pi T-shaped” and “Pi-Alkyl” in the lower left and lower right in the figure.