

The authors have answered the questions adequately. The revised EC-LUE model could work well at site level and for the global grids (the R2 of 95% sites were larger than 0.5 and the gridded GPP had higher R2 and lower RMSE than machine learning models and TRENDY products). Although the models still underestimated annual GPP significantly (slope<0.5 in Figure 3 and smaller daily GPP in Figure S2-S3), it fitted the tendencies well (Figure S1-S3) and performed better than the other models in this paper. It highlighted the usefulness to integrate CO2 in the LUE models to simulate GPP. I think it's worth to accept this paper after following minor revision:

1. Could you add the site R2/RMSE/Bias/tau of other models in figure 2 (can be the best one)?
2. The mean R2 of eight LUE models was mentioned but not determined in 3.1 and Figure S4.