This manuscript comparatively tests four hypotheses of the Priestley-Taylor wet-surface evaporation and calculated the corresponding parameters. It is an interesting work for the research on evaporation, from both the theoretical and application perspectives. I think it is worth for publishing after addressing several comments below.

Major comments:
1. The criterion of LE_{ref}>0.9LE_{p} for wet surface conditions requires accurate wind function f(u) for LE_{p}. The actual wind function may vary with the aerodynamic conditions, the boundary layer characteristics, or even the magnitude of wind speed. The wind function (3) with the fixed canopy height used in this study may deviate from the actual one (Han et al., 2021), especially with the growth of the vegetation. Let's write Ep with fixed wind function (3) as Ep'. E=\alpha*Ee is equivalent to E/Ep'= \alpha*Ee/Ep'. Then, E/Ep' may be substantially less than 0.9 by using wind function (3) with fixed canopy height, and substantial data which should be taken as under wet surface conditions may be excluded. Under this condition, the RH may be limited to large values artificially to make sure that Ee/Ep'>0.9. So, an evaluation on the result of the chosen for near wet surface conditions is needed, against other methods, or on the real wet surfaces, such as wetlands. What is the proportion of data left for a permanent wetlands by this criterion with the fixed wind function?

2. The result of the third hypothesis with large values of RH near the unity (Table 2 and 3) may be affected by above data chosen method, as Ee/Ep'>0.9 requires large RH.

3. For the hypothesis 4. Are the days of months with negative H_{ref} were excluded? Then, the data outside the range of Eq. (6) were excluded. The results may be influenced by this.

4. Table 2 and 3 only supply the optimized parameter of the other three hypotheses. How
the calculated alpha varies? Are the mean or median values related with ac?

5. Line 397: The Priestley-Taylor coefficient was not regarded a constant in Han and Tian (2018), but with seasonal variations, to the best of my knowledge. Please refer to Han et al., (2021).

6. Lines 400-410. The performance with constant ac is good by considering all the data. But bias exist under the conditions with small values or large values of LEref, as shown in Figure 3. Is it possible to give some discussion?

Other comments:
1. Page 16 and 17, Typo for Table 2 and 3.
2. Table 2. The intercept of RH with optimized LE is 15.54, but 15.52 in Figure 4.
3. Line 342: four hypotheses?

Reference: