

Geosci. Model Dev. Discuss., referee comment RC2
<https://doi.org/10.5194/gmd-2021-104-RC2>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.

Review of D. Wei et al.

Anonymous Referee #2

Referee comment on "FORest Canopy Atmosphere Transfer (FORCAST) 2.0: model updates and evaluation with observations at a mixed forest site" by Dandan Wei et al., Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2021-104-RC2>, 2021

In this work, the authors present a description of a new version of the FORCAST canopy chemistry column model. The manuscript is well-written and is an appropriate fit for GMD. Although the chemistry included in the model is state-of-the-science, other aspects (in particular the vertical turbulent transport) are relatively standard treatments. This reviewer, having created similar models in the past, believes the time has come to move beyond these simple column models to ones that can be more useful to answering critical science questions regarding surface-atmosphere exchange of trace chemical species (gases and particles). However, documenting FORCAST 2.0 in its current form is a valid manuscript for publication in GMD. I recommend publishing as is.