

Interactive comment on “Technical note: rectifying systematic underestimation of the specific energy required to evaporate water into the atmosphere” by Andrew S. Kowalski

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I thank Dr. Sabbatini very much for his positive and constructive comments. He is exactly right that the units in Table 1, and also describing equation (5) at line 70, should be J g⁻¹. This must and will be corrected in future revision, if the editor allows.

The differences between the temperature and virtual temperature are not important. The latter is used in the ideal gas law (equation 3) to avoid the need for a variable “constant” (the particular gas constant for moist air), following meteorological tradition. It was furthermore used, as in equation (4) to determine the values of lambda that are tabulated in Table 1. By contrast, equation (5) is merely an empirical relation to

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approximate the temperature dependence of lambda, determined by regression from the data in Table 1. The temperature was chosen to express this empirical dependence, both for simplicity and because it approximates lambda to within +/- 0.1%. To make this clearer, I propose to add text to the legend for Table 1, indicating that the values of lambda were calculated using equation (4).

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