Dear editors,

In the last proof-reading, we want to correct the unit of LWC in Equation 1 and 2. The detailed explanation is as follows.

With regards,

Shuqi Yan, Bin Zhu*, and all co-authors

---

The original Equation 1 and 2 are:

\[
\begin{align*}
(1) \quad \text{VIS}[m] &= 27 \text{LWC}\left[g \text{ cm}^{-3}\right]^{-0.88} \\
(2) \quad \text{VIS}[m] &= 1002 \left(\text{LWC}\left[g \text{ cm}^{-3}\right] \cdot \text{N}_c\left[\text{cm}^{-3}\right]\right)^{0.6473}
\end{align*}
\]

We want to change the unit of LWC from \(g \text{ cm}^{-3}\) to \(g \text{ m}^{-3}\).

Equation 1 is from Kunkel (1983), and Equation 2 is from Gultepe et al. (2006). In these two papers, the units of LWC is \(g \text{ m}^{-3}\) (e.g., Figure 1 and 2). We have carefully checked our code that calculates the visibility. The unit of LWC is correctly treated as \(g \text{ m}^{-3}\). Therefore, it is only a typo in the paper.

Eldridge (1966) derived the following empirical relationship between \(\beta\) and \(W\) for “stable and evolving” fogs based on fog drop-size distributions inferred from measured spectral transmission through fog with the aid of Mie scattering theory. The droplet range measured was 0.6–16 \(\mu\text{m}\) diameter,

\[
\beta = 163W^{0.65},
\]

where \(W\) is in \(g \text{ m}^{-3}\) and \(\beta\) is in \(\text{km}^{-1}\).

Figure 1. The screenshot from Kunkel (1983). Here the ”W” means LWC.
Figure 2. The screenshot from Gultepe et al. (2006).

References
