I appreciate the efforts made by the authors to reply my comments and include some of my suggestions in the main text. I consider the manuscript has improved and recommend publishing it subject to minor technical corrections:

Line 32: “Levy et al. (2005) has” → “Levy et al. (2005) have”

Line 74: productions → production; removals → removal

Line 108: investigated → investigate

Line 184: “of which the period is smaller than about 50 days” →“with period shorter than about 50 days”

Line 230: Change “the total variance of [O3] at this site as its small ranges in Fig. 2d” to “the total variance of [O3] at this site as can be seen from its small ranges in Fig. 2d”.

Line 232: “occupy only small fraction” → “are only a small fraction”?

Line 249: observation → observations

Lines 286 & 290: Change “metropolitans” to “metropolitan cities” or “metropolitan areas”

Line 393: “the less titration” → “the lower titration”

Line 407: “In both two scatter plots” → In both scatter plots

Lines 450 – 451: I would moderate the statement “This indicates considerable future increases in exceedances of the O3 air quality standard over South Korea except over coastal regions”.
One could change it to something like “This suggests considerable future increases in exceedances of the O3 air quality standard over South Korea, except over coastal regions, in the absence of emission abatement measures”.

Line 467: “weather systems in there” → “weather systems there”

Line 468: “is appeared” → “appears”

Line 473: The high O3 might come from the mid-troposphere. So I would change “upper troposphere” to “upper levels” or “free troposphere”.

Line 475: fogs → fog

Line 481: “on the O3 therein” → “on O3 there”

Line 482: “are appeared” → “appear”

Line 484: “at two cities” → “at the two cities”

Line 511: “are occurred” → “occur”

Lines 359 – 362: This is not a correction, just a suggestion.

The authors wrote “As a result of the multiple linear regression, coefficients of determination (R2) between baselines of O3 8h and each meteorological variable, as well as adjusted R2 for the multiple linear regression models, were calculated for 72 air quality 362 monitoring sites distributed in 25 cities nationwide and summarized in Table 2”.

I recommended including the value of R-squared for the multiple lineal regression model of O3 on six meteorological variables (Tmax, SI, TD, PS, WS and RH) at the different cities. The authors have not attempted to select the best explanatory variables, which I understand is out of the scope of this manuscript. They might be over-fitting the model and R-squared will always increase when a new term is added. Because of that the authors have correctly opted to show the values of adjusted R-squared.

It would be good to add a short sentence to indicate that they are not attempting to select the best predictors and that adjusted R-squared is an appropriate statistic, since it adjusts for the number of terms included in the model and it does not increase due to those terms which would improve R-squared by chance.