

Interactive comment on “Modeling the possible role of iodine oxides in atmospheric new particle formation” by S. Pechtl et al.

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General comments:

- p. 9912: I find the term “total particle radius” not very self-explanatory. Can you explain what “total” means?
- p. 9913: It is not clear to me if the nucleation rate describes the loss of OIO or the production of clusters. The difference between these is a factor of 34.
- p. 9929, l. 10: I would not say that formation of HIO_3 is “quite unimportant”. After all, it can change the iodate/iodide ratio in the aerosol, which is a topic of current

debates.

Technical comments:

- Replace all occurrences of “in 15 m altitude” by “at 15 m altitude”
- p. 9912, l. 26: change “modul” to “module”.
- p. 9913: Why was the symbol ξ chosen for the mixing ratio? In the “green book” from IUPAC, the symbol x is recommended.
- p. 9913: Why was the symbol J chosen for the nucleation rate? Normally, J represents a flux and not a rate.
- p. 9914, l. 1: What is “negligance”?
- p. 9920, l. 2: For consistency, replace “ppt” by “pmol/mol”.
- p. 9928, l. 10: change “recaction” to “reaction”.
- p. 9928, l. 12: This is not the rate coefficient. Please correct!
- p. 9928, l. 15: self reaction of OIO ???
- p. 9929, l. 21: pmol or nmol???
- p. 9930: Change “the results ... is not in agreement” to “the results ... are not in agreement”.
- p. 9930, l. 10: pmol or nmol???
- p. 9932, l. 1: pmol or nmol???

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- supplement, Table 1: Please explain in the table caption the meaning of “ALD”, “EO₂”, and “ROOH”.
- supplement: Replace all “CH3OO” with “CH₃OO”.
- supplement, Table 1: DOM and MO₂ are missing in this table.
- supplement, Table 2: Please correct the *A*-value of reaction Cl3.
- supplement, Table 3: Replace all “hv” with “*hν*”.
- supplement, references: Please check the Anastasio et al. reference. Has this paper been published?
- supplement, references: Check indices for “NO₂+” in Burley and Johnston.
- supplement, references: Please check the Matthew et al. reference. Has this paper been published?

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