Dear Professor Dr. Lübken,

I have made changed suggested by the referees.

Referee #1

vmr has been changed to VMR.

N2 has been changed to N2.

Rate coefficient has been denoted by small italicized “k”.

*k*Lab has been changed to *k*LAB.

Referee #2

The reaction N + NO is one of the sourced of rotationally excited N2. This is mentioned several times in the paper starting with the abstract, line 23. Line 185 states: “Rotationally super-thermal N2 may be produced by collisions of fast O atoms with N2.” Again lines 216 – 218: “Rotationally super-thermal N2, produced by collisions of fast O atoms with N2 or by the N + NO reaction or any other mechanism …”. The nascent N2 produced by the N + NO reaction is discussed in greater detail because its rotational distribution has been calculated.

L42. Earlier referee #1 wanted it written this way, therefore I have not changed it.

L53. The spelling of the referee’s name has been corrected.

L198. I have clarified to read “vibrational levels 2 – 7 are each populated with a probability of about 0.1…”.

L199. Equation (6) has been changed as suggested by the referee.

Thank you very much for guiding the manuscript through the publication process.

With best wishes,

Ramesh Sharma.