

Minor Corrections to

Modeling and Analysis of Chemical Kinetics

for Hypersonic Flows in Air

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This document contains minor corrections to Ross S. Chaudhry's Ph.D thesis. The latest version of this document may be found at <https://github.com/ross-chaudhry/phd-thesis-minor-corrections/blob/master/main.pdf>, or by contacting the author at chaudhry.ross@gmail.com. Once the thesis itself becomes available online, it will be linked here also.

1. The estimated uncertainty for the conditional PDF, δf_e , shown in Equation (2.38) on page 38, should use $P(e)$ instead of $P(\bar{e})$. The corrected equation is,

$$\delta f_e(\bar{e}) = f_e(\bar{e}) \sqrt{\left(\frac{\delta P(e \cap \bar{e})}{P(e \cap \bar{e})}\right)^2 + \left(\frac{\delta P(e)}{P(e)}\right)^2}$$

2. Reference [129] in the thesis, cited on page 95, does not include the journal number, volume, or pages. Reference [90] in the thesis is the same citation and it includes the missing information. Thus, Ref. [129] on page 158 should be replaced by Ref. [90], and bibliography entry [129] on page 158 should be removed.
3. The last two rows of data in Table 3.3, on page 113, should be labeled as collision partner $M = O_2$ instead of N_2 . Note that errors in the numbers of most tables are unlikely, because the raw data are mostly autogenerated from the QCT database itself.