

Accepted Manuscript

Effects of self-absorption on simultaneous estimation of temperature distribution and concentration fields of soot and metal-oxide nanoparticles in nanofluid fuel flames using a spectrometer

Guannan Liu , Dong Liu

PII: S0022-4073(18)30011-6
DOI: [10.1016/j.jqsrt.2018.04.003](https://doi.org/10.1016/j.jqsrt.2018.04.003)
Reference: JQSRT 6049



To appear in: *Journal of Quantitative Spectroscopy & Radiative Transfer*

Received date: 8 January 2018
Revised date: 1 March 2018
Accepted date: 4 April 2018

Please cite this article as: Guannan Liu , Dong Liu , Effects of self-absorption on simultaneous estimation of temperature distribution and concentration fields of soot and metal-oxide nanoparticles in nanofluid fuel flames using a spectrometer , *Journal of Quantitative Spectroscopy & Radiative Transfer* (2018), doi: [10.1016/j.jqsrt.2018.04.003](https://doi.org/10.1016/j.jqsrt.2018.04.003)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Improved reconstruction model accounted for self-absorption was presented.
- Temperature and concentration fields of soot and Al_2O_3 were retrieved accurately.
- Effects of self-absorption for various reconstruction factors were discussed.
- The proposed model can be successfully applied to optically thick flames.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7845970>

Download Persian Version:

<https://daneshyari.com/article/7845970>

[Daneshyari.com](https://daneshyari.com)