Accepted Manuscript

Large eddy simulation of a turbulent diffusion flame including thermal radiation heat transfer

Yuri P. Almeida, Paulo L.C. Lage, Luiz Fernando L.R. Silva

PII: S1359-4311(15)00135-0

DOI: 10.1016/j.applthermaleng.2015.02.027

Reference: ATE 6377

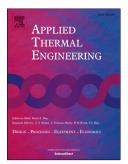
To appear in: Applied Thermal Engineering

Received Date: 1 September 2014

Accepted Date: 13 February 2015

Please cite this article as: Y.P. Almeida, P.L.C. Lage, L.F.L.R. Silva, Large eddy simulation of a turbulent diffusion flame including thermal radiation heat transfer, Applied Thermal Engineering (2015), doi: 10.1016/j.applthermaleng.2015.02.027.

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.



ACCEPTED MANUSCRIPT

Research Highlights:

- FireFOAM was validated against experimental data and FDS simulation results.
- The flame simulations were performed using large eddy simulation including radiation.
- Spectral analysis was used to confirm mesh adequacy for the LES simulations.
- FireFOAM results yielded good agreement with the available experimental data.
- FireFOAM predicted more adequate flame temperatures than FDS.

CERTIN MARK

Download English Version:

https://daneshyari.com/en/article/645639

Download Persian Version:

https://daneshyari.com/article/645639

Daneshyari.com