عنوان مقاله:

Radiation modeling of a turbulent diffusion flame in diesel engine

نویسندگان:

meghdad pishgooie - *shahid bahonar university of kerman*

masoud hosseini sarvari - *shahid bahonar university of kerman*

hossein mansouri - *shahid bahonar university of kerman*

خلاصه مقاله:

The purpose of this study is to investigate the effect of radiation heat transfer on temperature distribution and heat flux to the walls of a diesel engine. A diffusion flame is modeled in a simple cylindrical geometry and boundary conditions are defined. A specific solver which can model the turbulent diffusion flame by considering radiation in participating media is used to solve the problem. The solver is verified using experimental data of a furnace. The results show that with considering radiation and non-gray effects in the model, the flame temperature is calculated higher than that with ignoring these effects (about ۱۱% in problem considered in this study).

کلمات کلیدی:

Radiation, Combustion, None-gray Media, OpenFoam, Soot

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1865341