EFFECT OF TURBULENCE ON THE MEAN RATE OF CHEMICAL TRANSFORMATIONS: REVIEW

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Abstract: The models allowing approximate calculation of the mean reaction rate in turbulent reactive flow in frontal, volumetric, and mixed frontal-volumetric modes of combustion have been reviewed. Considered are the models of perfectly and partially stirred reactors, presumed probability density function (PDF), and transported joint velocity-scalar PDF.

Keywords: turbulent reactive flows; mean chemical reaction rate; turbulence-chemistry interaction; partially stirred reactor; probability density functions

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