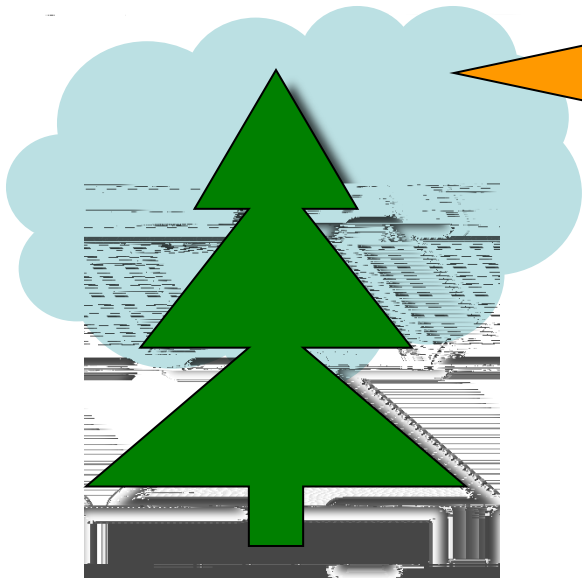




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Forest fires: INTAS workshop, Russia, May 2006



Workshop INTAS – Siberian Branch
Of the Russian Academy of Sciences
Scientific Cooperation and Collaborative Call
10-12 May 2006
Novosibirsk, Russia

V.A. Perminov, E.M. Sazhina

Kemerovo State University, Russia
School of Engineering, University of Brighton, UK

A mathematical model for description of heat and mass transfer processes at crown forest fire initiation and spread is developed. It is assumed that the forest can be modelled as a two-temperature multiphase non-deformable porous reactive medium during a forest fire.

The applicability of the Shell autoignition model to the description of ignition of gaseous products of pyrolysis of forest materials is explored. The Shell model accounts for the continuous chemical heat release prior to the ignition (including cool flames) while being less CPU intensive than detailed kinetic mechanisms (DKM) of autoignition

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