

2F03: NUMERICAL EXAMINATION OF TWO-DIMENSIONAL SMOLDER STRUCTURE IN POLYURETHANE FOAM.

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Comment by Guillermo Rein, The University of Edinburgh, UK

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Congratulations for an interesting paper with valuable contributions. Your kinetics scheme is based on a previous one shown to be valid for both opposed and forward. Given that multidimensional smoldering propagates in the lateral edges in a mixed configuration of both opposed and forward flow, how different would the authors expect the results to be if one-step chemistry were to be used instead? This would help elucidate the minimum number of reactions required in multidimensional smoldering.

Reply by Amanda Dodd

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The authors do not fully understand the question however in general a multistep kinetic scheme should be better than one reaction to adequately capture smolder front behavior.