Ahmed's title

Ahmed Hassan*, Heinz Pitsch

Institute for Combustion Technology, RWTH Aachen University, 52056 Aachen, Germany

Abstract

Ahmed's abstract

Keywords:
Sensitivity analysis, Uncertainty quantification, Enthalpy of formation, Standard entropy, Heat capacity

*Corresponding author.
Email address: a.hassan@itv.rwth-aachen.de (Ahmed Hassan)

1. Introduction

TBD

2. Methodology

2.1. Sensitivity analysis for thermochemical properties

TBD

3. Conclusions

TBD

Acknowledgments

TBD

References

[1] G.P. Smith, D.M. Golden, M. Frenklach, N.W. Moriarty, B. Eiteneer, M. Goldenberg, C.T. Bowman, R.K. Hanson, S. Song, W.C. Gardiner Jr, V.V. Lissianski, Z. Qin, GRI-Mech 3.0. URL http://www.me.berkeley.edu/gri_mech/.

[2] D.A. Sheen, H. Wang, The method of uncertainty quantification and minimization using polynomial chaos expansions, Combust. Flame 158 (2011) 2358–2374.

[3] L. Cai, H. Pitsch, Mechanism optimization based on reaction rate rules, Combust. Flame 161 (2014) 405–415.

[4] M. Frenklach, Systematic optimization of a detailed kinetic model using a methane ignition example, Combust. Flame 58 (1984) 69–72.

[5] S.G. Davis, A.B. Mhadeshwar, D.G. Vlachos, H. Wang, A new approach to response surface development for detailed gas-phase and surface reaction kinetic model optimization, Int. J. Chem. Kinet. 36 (2004) 94–106.

[6] Y. Sakai, J. Herzler, M. Werler, C. Schulz, M. Fikri, A quantum chemical and kinetics modeling study on the autoignition mechanism of diethyl ether, Proc. Combust. Inst. 36 (2017) 195–202.