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## Challenges and solutions for using liquid fuels in aviation industry (Article)

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### Abstract

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Riding imperatives of twenty-first-century modern aviation are adequate fuel intake. Aircraft may be fueled via sustainable liquid fuels that make it more advantageous and exploitable in applications are described and as compared to the ones of different conventional fuels. In this review paper, different researches had been cited. As can be found from numerous researches, insertion of barriers is better to gain detonation speed. In the pulse detonation engine deflagration to detonation (DDT) transition procedure is observed to be a maximum crucial issue. Detonation initiation of multiphase flow is vital to the improvement of the pulsed detonation engine (PDE). Examination of multiphase flow detonability shows that mixing and stoichiometry are essential to a success DDT. In the present paper, a detailed assessment of different experimental studies and computational analysis addressing liquid fuels in pulse detonation engines discussed. The effect of various parameters at the improvement of propulsion overall performance of pulse detonation engine has been provided in detail in this review paper. © 2019, Blue Eyes Intelligence Engineering and Sciences Publication. All rights reserved.

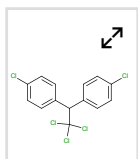
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