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Design and Analysis of a Clustered Nozzle Configuration and Comparison of Its Thrust

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Abstract : The purpose of this paper is to study the thrust variation in different configurations of clustered nozzles. It involves the design and analysis of clustered configuration of nozzles using Ansys fluent. Clustered nozzles with different configurations are simulated and compared on basis of effective exhaust thrust. Mixing length for the flow interaction is also calculated. Further clustered configurations are analyzed over different altitudes. An optimum value of the thrust among different configurations is proposed at the end of comparisons.

Keywords : CD nozzle, cluster, thrust, fluent, ANSYS
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