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2.3.2 Mean Diameter and Characteristic Diameter; 2.3.3 Measurement of Spray Size Distribution; 2.4 Atomization Modeling for Liquid Rocket Engine Atomizers; 2.4.1 Straight-flow Injector; 2.4.2 Centrifugal Injector; 2.4.3 Impinging-stream Injectors; 2.4.4 Coaxial Shear Injector; 2.4.5 Coaxial Centrifugal Injectors; 2.5 Numerical Simulation of Liquid Propellant Atomization; 2.5.1 Theoretical Models of Liquid Propellant Atomization; 2.5.2 Quasi-fluid Models
2.5.3 Particle Trajectory Models2.5.4 Simulation of Liquid Jet Atomization Using Interface Tracking Method; 2.5.5 Liquid Jet Structure - Varying Flow Conditions; References; Chapter 3 Modeling of Droplet Evaporation and Combustion ; 3.1 Theory for Quasi-Steady Evaporation and Combustion of a Single Droplet at Atmospheric Pressure; 3.1.1 Quasi-Steady Evaporation Theory for Single Droplet in the Static Gas without Combustion; 3.1.2 Quasi-Steady Evaporation Theory for Droplet in a Static Gas with Combustion; 3.1.3 Non-Combustion Evaporation Theory for a Droplet in a Convective Flow
3.1.4 Evaporation Theory for a Droplet in a Convective Medium with Combustion3.2 Evaporation Model for a Single Droplet under High Pressure; 3.2.1 ZKS Droplet High Pressure Evaporation Theory; 3.2.2 Application of the Liquid Activity Coefficient to Calculate the Gas-Liquid Equilibrium at a High Pressure; 3.3 Subcritical Evaporation Response Characteristics of Propellant Droplet in Oscillatory Environments; 3.3.1 Physical Model; 3.3.2 Examples and the Analysis of Results; 3.4 Multicomponent Fuel Droplet Evaporation Model; 3.4.1 Simple Multicomponent Droplet Evaporation Model
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