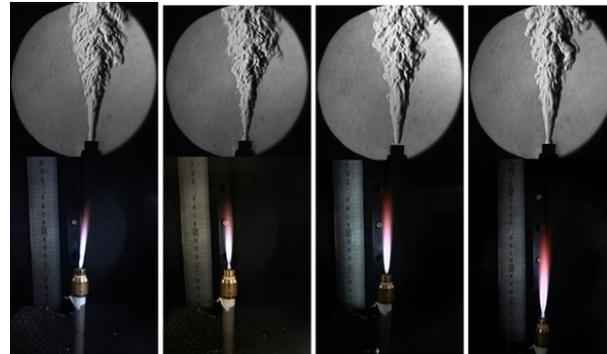
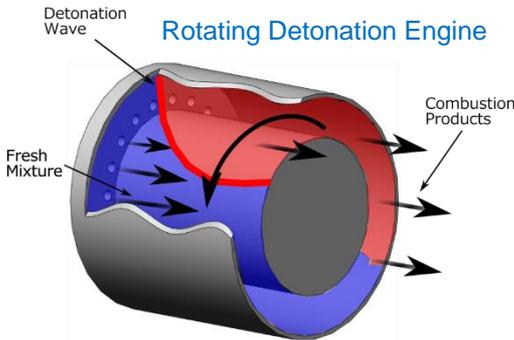
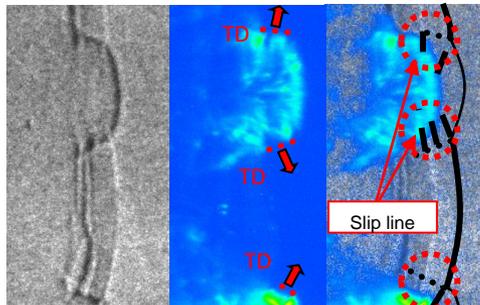


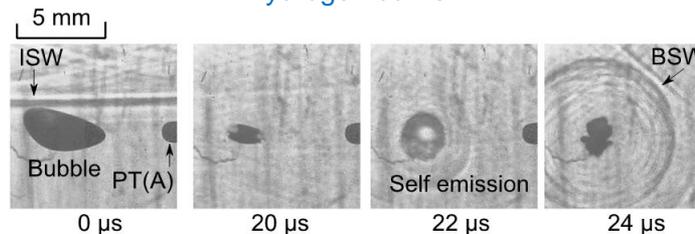
Combustion is a complex phenomenon involving the interaction of thermal processes, fluid dynamics, and chemical reactions. Our laboratory focuses on fundamental studies of gaseous detonation, an extremely high-speed combustion, as well as its potential industrial applications, particularly in aerospace propulsion systems. In addition, we conduct research on hydrogen combustion burners and on the control and reduction of combustion emissions that are harmful to human health.



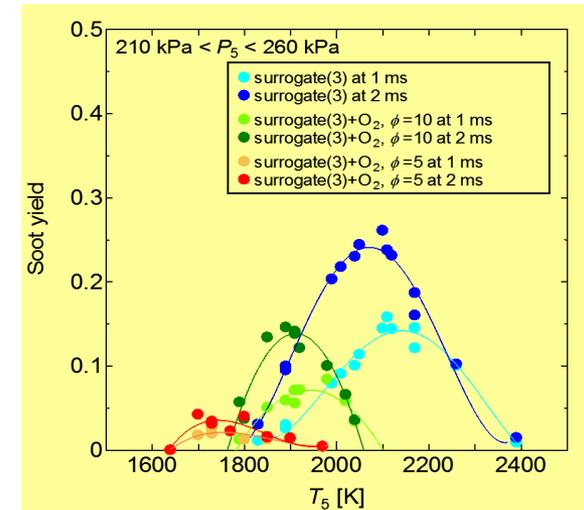
Hydrogen burner



Structure of detonation front



Explosion of a combustible bubble and generation of a spherical shock wave after passing of an incident shock wave



Soot formation characteristics of a gasoline surrogate fuel