

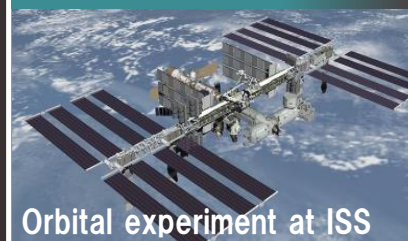


Development of Innovative Combustion Technology

Keywords

Combustion, Energy, Engine, New concept fuel

Microgravity Combustion

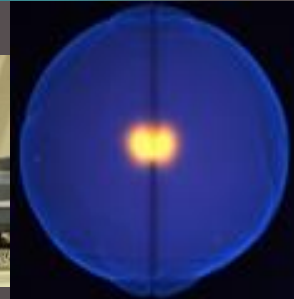


Orbital experiment at ISS (KIBO module) expected in 2023

Towards comprehensive combustion limit theory

High Efficient SI Engine

Ignition experiment



New ignition methods for next generation engines

Combustion Analysis

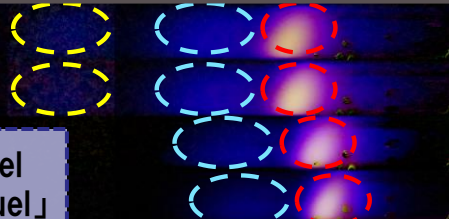
Working fluids for refrigerators 「Hydrofluorocarbon refrigerants」
Lithium-ion batteries 「Electrolytes」

Fire Safety

Energy

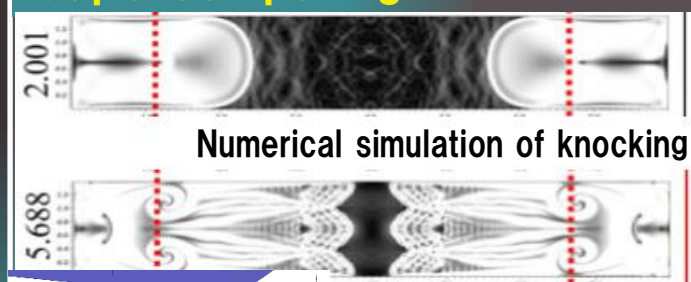
Alternative fuel 「e-fuel」 「Biofuel」

Carbon-free fuel 「Ammonia」 · Hydrogen



A brand new method to evaluate fuel reactivity

Supercomputing



Numerical simulation of knocking

Ring-shaped flame



Solving complicated combustion phenomena

Various Experiences

- State-of-the-art techniques for experiment & computation
- Various opportunities for international experiences
- Collaborative researches with leading companies

Recent conferences

- 18th International Conference on Numerical Combustion @USA 2022.5
- 27th International Colloquium on the Dynamics of Explosions and Reactive Systems @Italy 2022.6
- International Symposium on Combustion @Canada 2022.7



Lab HP



IFS Bld. #2 5F 504&505, Tohoku University
PHONE: 022-217-5296
E-mail : labs@edyn.ifs.tohoku.ac.jp

