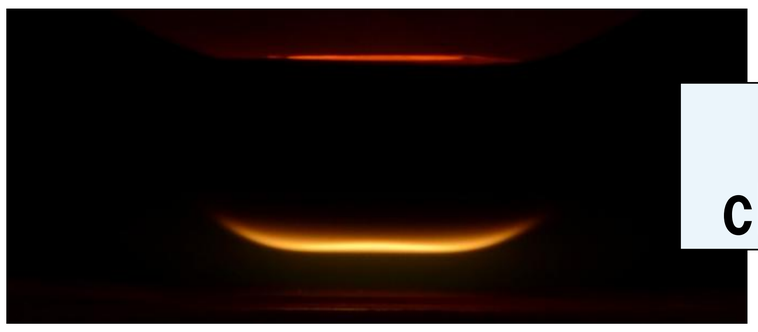
Institute of Fluid Science
Aerospace Engineering
Reactive Flow Systems Laboratory

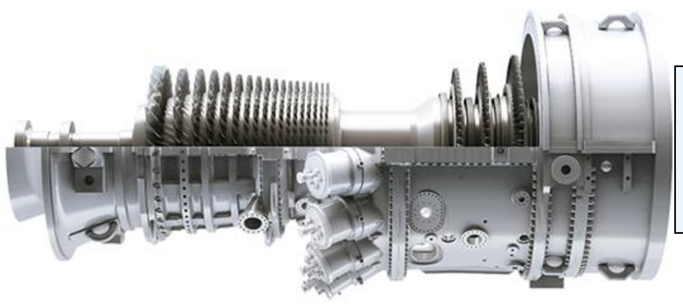
H.Nakamura Lab.

~Toward zero GHG & zero fire in energy systems~

Ammonia combustion



Combustion characteristics

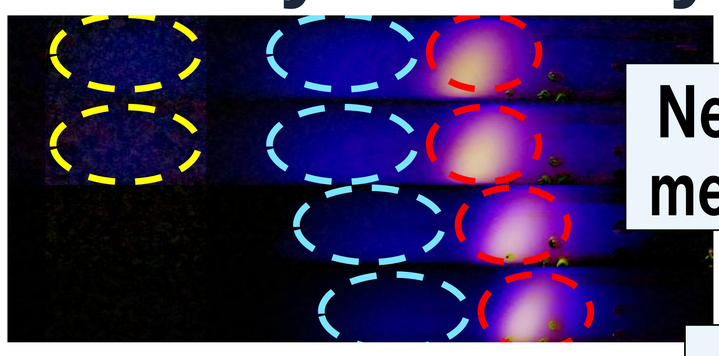


Reduce NO_X
High efficiency

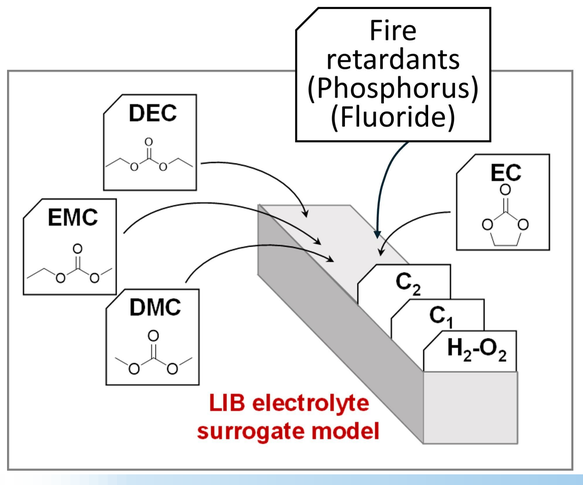
https://www.ihi.co.jp/all_news/2023/resources_energy_environment/1200572_3538.html

For implementation of NH_3 combustion tech.

Battery Electrolytes



New investigation method for flames

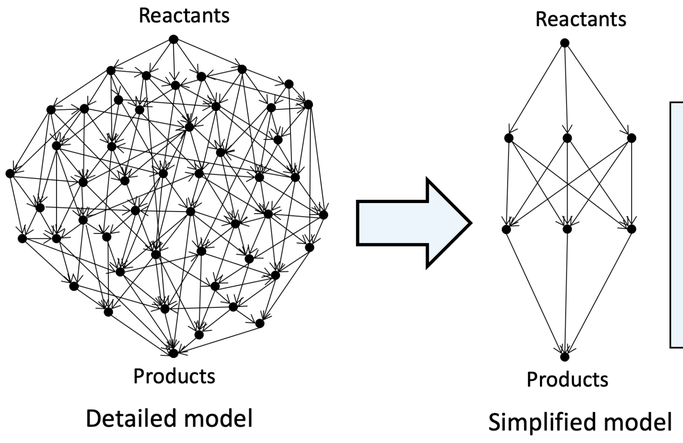


Evaluation of fuel reactivity

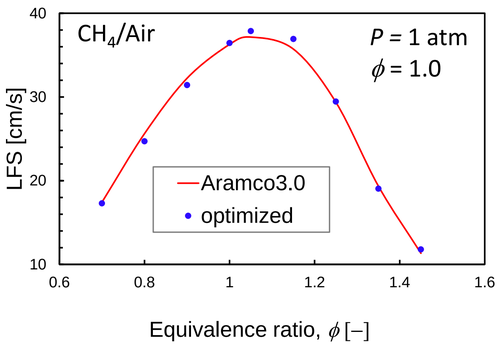
Development of reaction models

For mitigation of battery fires

Machine Learning



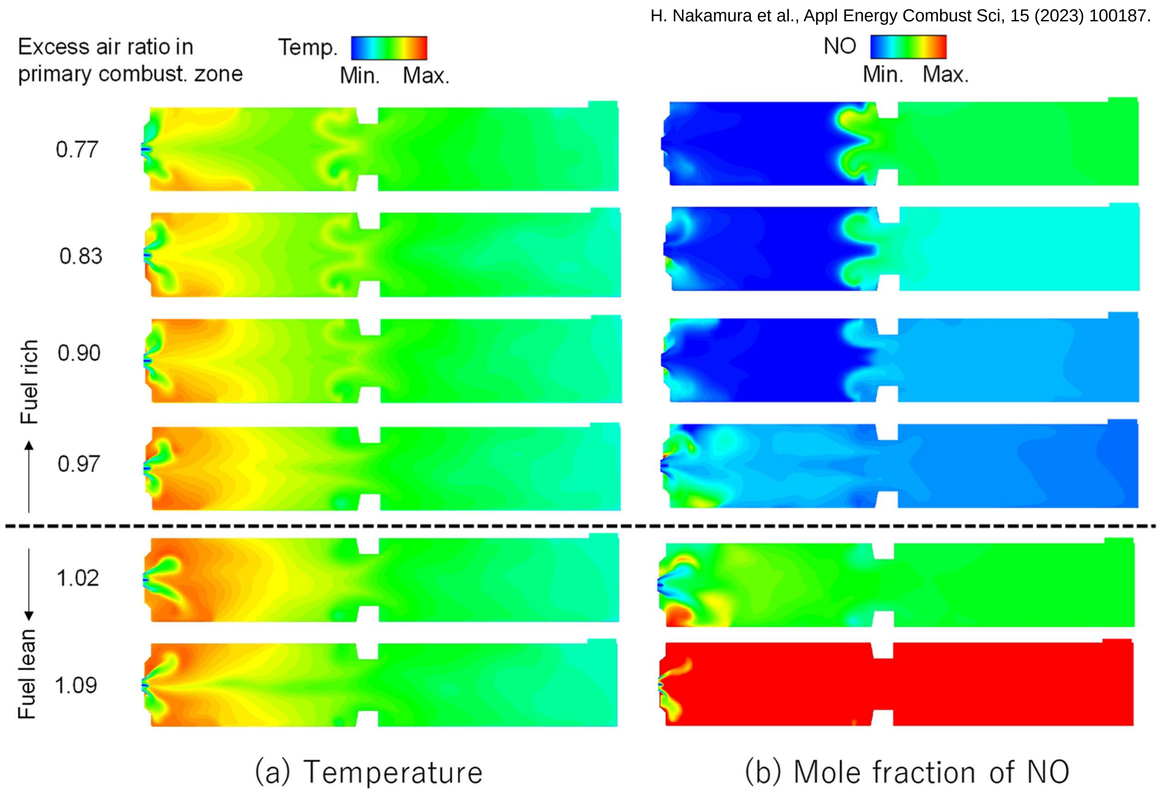
Simplify complicated reaction pathway



Optimization using Genetic Algorithm

For reduction of combustion computational load

Combustion CFD



For high performance combustors

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