

Prof. Akira Hashimoto LAB

[Ultimate High-efficiency Thermal Power Plant]

Endowed research Unit : Advanced Energy Conversion Engineering
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Speciality Area: Sustainable Energy Engineering for Low Carbon Society

Mechanical Engineering

Ultimate High-efficiency Thermal Power Plant

(SOFC / Gas Turbine / Steam Turbine Combined System)

Highly efficient power generation systems are required to solve modern global warming and energy issues. Solid oxide fuel cells(SOFC) can be integrated into power generation systems that are expected to be more efficient than those in conventional power plants. The efficiency of conventional natural gas firing power plants is approximately 40%, while that of the SOFC/GT/ST combined plant is 72%. This demonstrates how we can contribute to a low-carbon society by reducing CO₂ emission.

