Research background and purpose

Waste power generetion

Merit: Reduction of fossil fuel use by using waste

Demerit: Adhesion problem due to molten ash, deterioration of power generation efficiency

↳ **Chemical corrosion of heat transfer tube surfaces due to slugging and fouling**

slugging ：炉壁に灰付着層を形成する現象

Fouling ：灰が溶融・気化して伝熱管や熱交換器に付着し、灰付着層を形成する現象

Ash adhesion control → High efficiency of waste power generation → Reduced consumption of fossil fuels

Research purpose → Control of ASh DepoSition during Thermal Recycling of Municipal Waste

Research　contents

(1) Thermodynamic equilibrium calculation by Factsage

(2)Ash adhesion experiment by DTF

(3)Analyzing cross section of test piece by CCSEM

・**DTF**：Drop Tube Furnace(ドロップチューブ炉)
・**CCSEM**：Computer Controlled Scanning Electron Microscopy