

# Research background and purpose

## Waste power generation

**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

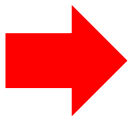


High efficiency of  
waste power  
generation



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