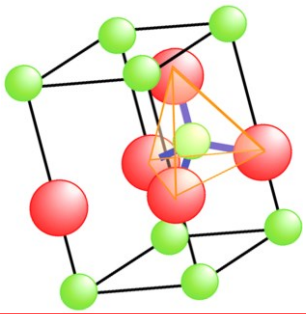
High-temperature Physical Chemistry of Materials (Fukuyama Lab)

Environment and Energy Engineering course



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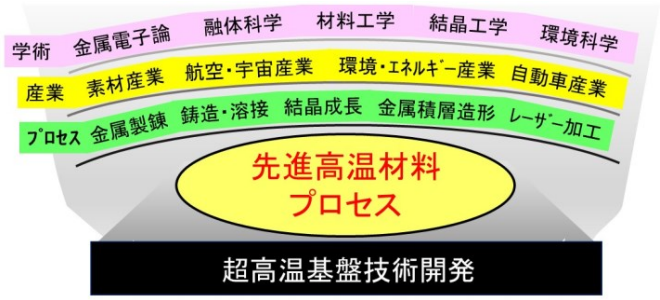
We contribute to energy issue based on mechanical engineering and materials science.



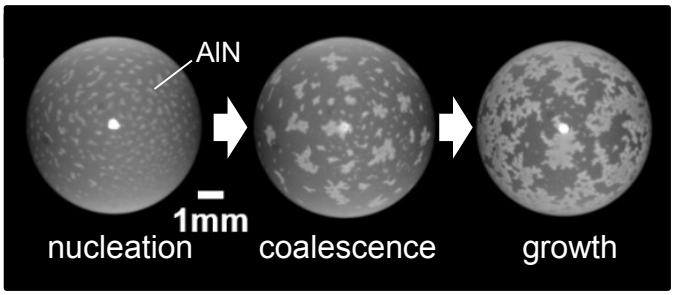
flexible ideas ⇨ novel material development

Research fields・key words:

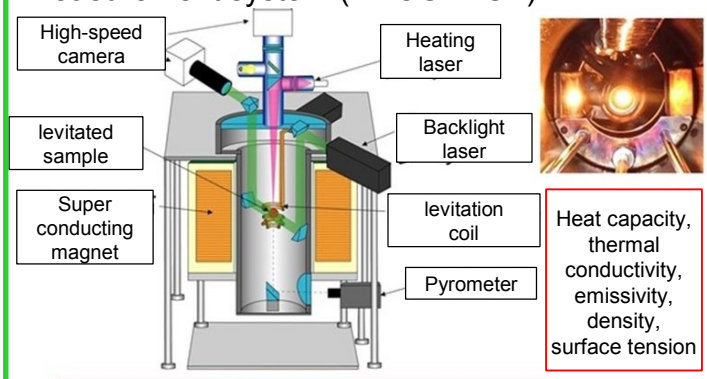
functional materials processing; thermodynamics; physical chemistry; thermophysical properties of melts; crystal growth

Research themes:

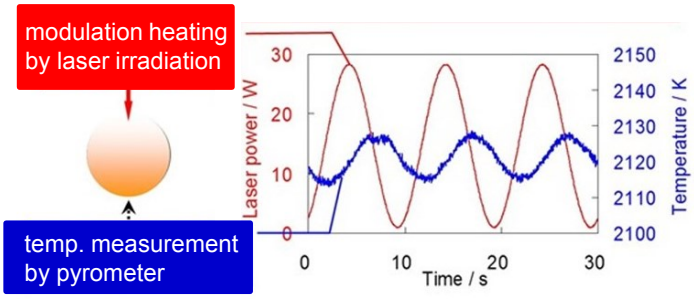
▪crystal growth and physical chemistry of III-nitrides
・development of thermophsycal property measurement system for high temperature melts
・development of high-temperature material processing
・thremophysical property measurement of high-temperature materials



High-temp. thremophysical property measurement system (PROSPECT)



Modulation laser calorimetry



- Aerospace industry:
  developments of turbine blade materials for jet engine
- Energy industry:
  materials development for power plants
- Semiconductors and materials industry:
  crystal growth, solidification, casting
- Automotive industry:
  precise welding technology

We warmly welcome visitors!