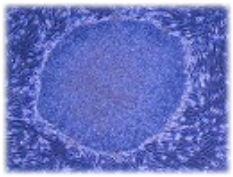
# Environment and chemical Engineering Lab. (Horikoshi Lab.)
# - Our research themes and applications -


Hydrogen station


Novel adhesive technology


Sunscreen


Tire rubber


Precision drying


Mealworm

## Chemistry

- Energy-saving hydrogen generation from natural water
- Epoxy encapsulation technology for electronic materials
- Synthesis of microwave responsive adhesives
- Development of microwave non-discharge solid catalyst
- Existence investigation of microwave catalyst
- Sunscreen risk under electromagnetic radiation

## Environment・GC

- Tire recycling and retreading
- Plastic recycling
- Development of GC-type microwave organic synthesis
- Precision drying technology for rare materials
- Decomposition of plastics by mealworms using microwave stimulation

## Utilizing microwave and light energy for chemistry and biology

- Promotion of growth of plants and fish by electromagnetic wave stimulation method
- Proliferation of Euglena in poor environment
- Improving the value of aged meat using microwave enzymes
- Activation of fish using submerged plasma

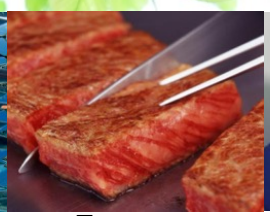
## Biology

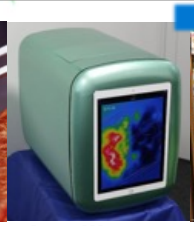
- Development of intelligent cooker
- Development of microwave non-discharge type container
- Calculation of optimal thawing and heating of frozen foods and systematization of electromagnetic wave responsiveness
- Development and demonstration of food cooking robot
- Development of hybrid oven

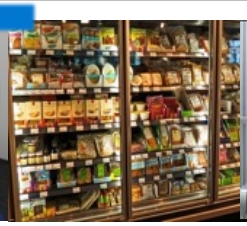
## Food science


Plant Industry


Fish farming


Enzyme processing


Intelligent cooker


Frozen food


Food robot

～ Make our efforts, Make the bright future, ～

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