

# Lattice Defects and Crystal Plasticity Sub-area, Properties of Structural and Functional Materials Area, Division of Materials and Manufacturing Science

## Research subjects

Plasticity of crystalline materials such as metals and ceramics depend strongly on behavior of lattice defects such as dislocations and grain boundaries. We aim to develop and design the advanced structural and functional materials such as heat resistant alloys, permanent magnets, superelastic alloys and metallic glass by controlling lattice defects in nano- and micro-scale.

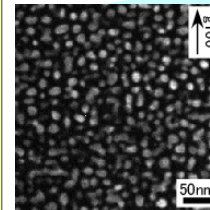
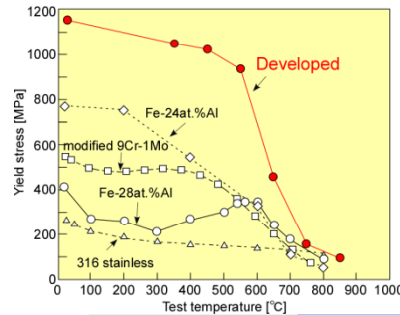
## Staff

Hiroyuki Yasuda  
Professor  
(7497, hyasuda@mat.eng.osaka-u.ac.jp)

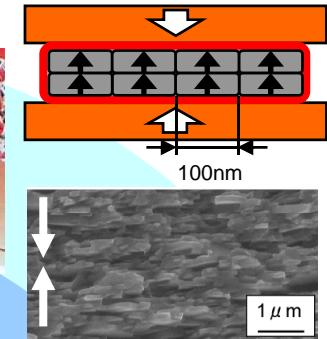
Takeshi Nagase  
(Part) Associate Professor  
(7941, t-nagase@uhvem.osaka-u.ac.jp)

Wataru Fujitani  
Technician  
(7496, fujitani@mat.eng.osaka-u.ac.jp)

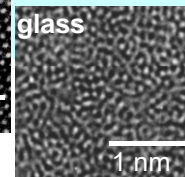
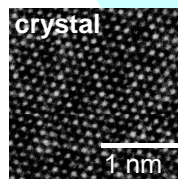
## Heat resistant alloys



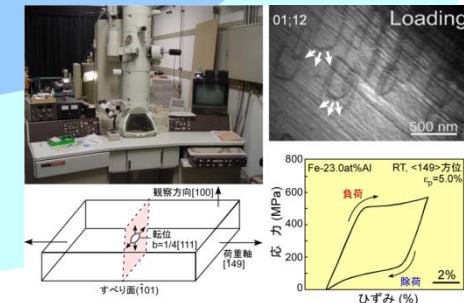
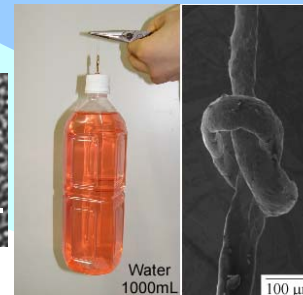
## Permanent magnets



# Crystal Plasticity



## Metallic glass



## Superelastic alloys