

FURUSHIMA LAB.

Advanced Materials Forming and Processing



Department of Mechanical and Biofunctional Systems

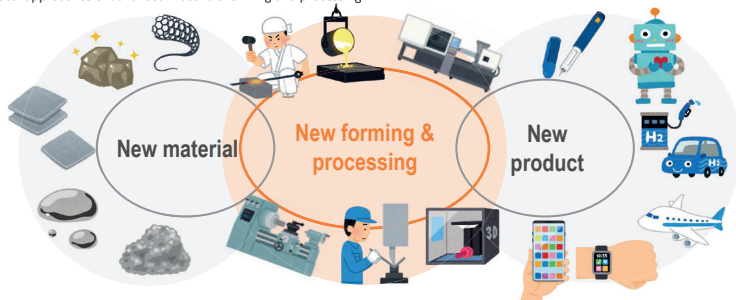
Materials Forming and Processing

Department of Mechanical Engineering, Graduate School of Engineering

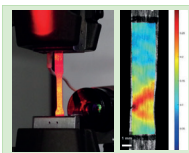
<https://www.furulab.iis.u-tokyo.ac.jp/>

Potential of Advanced Materials Forming and Processing

A strong point in Japan Industry is said to be the material field. However, even if valuable and novel materials are developed, it is impossible to fully demonstrate the function of the materials without forming and processing technologies that makes use of it. We are focusing on "the deformation of materials" related to metal forming techniques and engineering plasticity. In our group, we cover both experimental and theoretical approaches of advanced materials forming and processing.



Micro Metal Stamping Process for Medical and Electric devices



Visualization of deformation



Micro metal forming



Energy-saving air conditioner



5G

Connector pin

Target Products

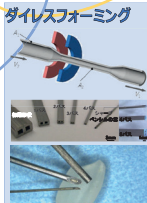


Automobile

Weight reduction

Material forming and processing

Development of new forming
Optimization of conditions
Forming simulation



ワイレスフォーミング

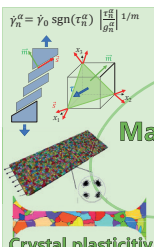


Medical device
Recyclable Mg stent



Li-ion battery

Lithium type battery



Materials

Crystal plasticity



チユウノハイドロフォーミング

