

FURUSHIMA LAB.

[Advanced Materials Forming and Processing] Micro Metal Forming and Micro Tube Forming



Department of Mechanical and Biofunctional Systems

Materials Forming and Processing

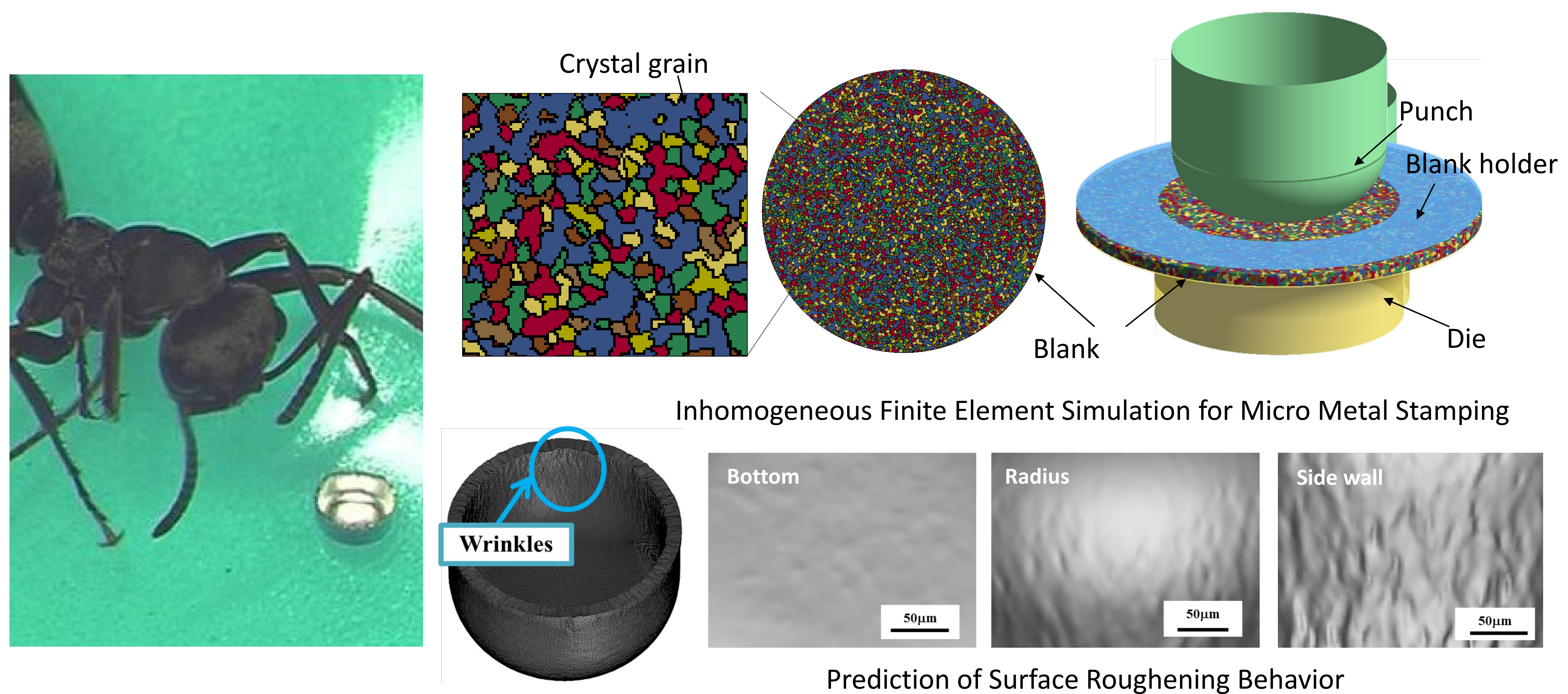
Department of Mechanical Engineering

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

Potential of Advanced Materials Forming and Processing

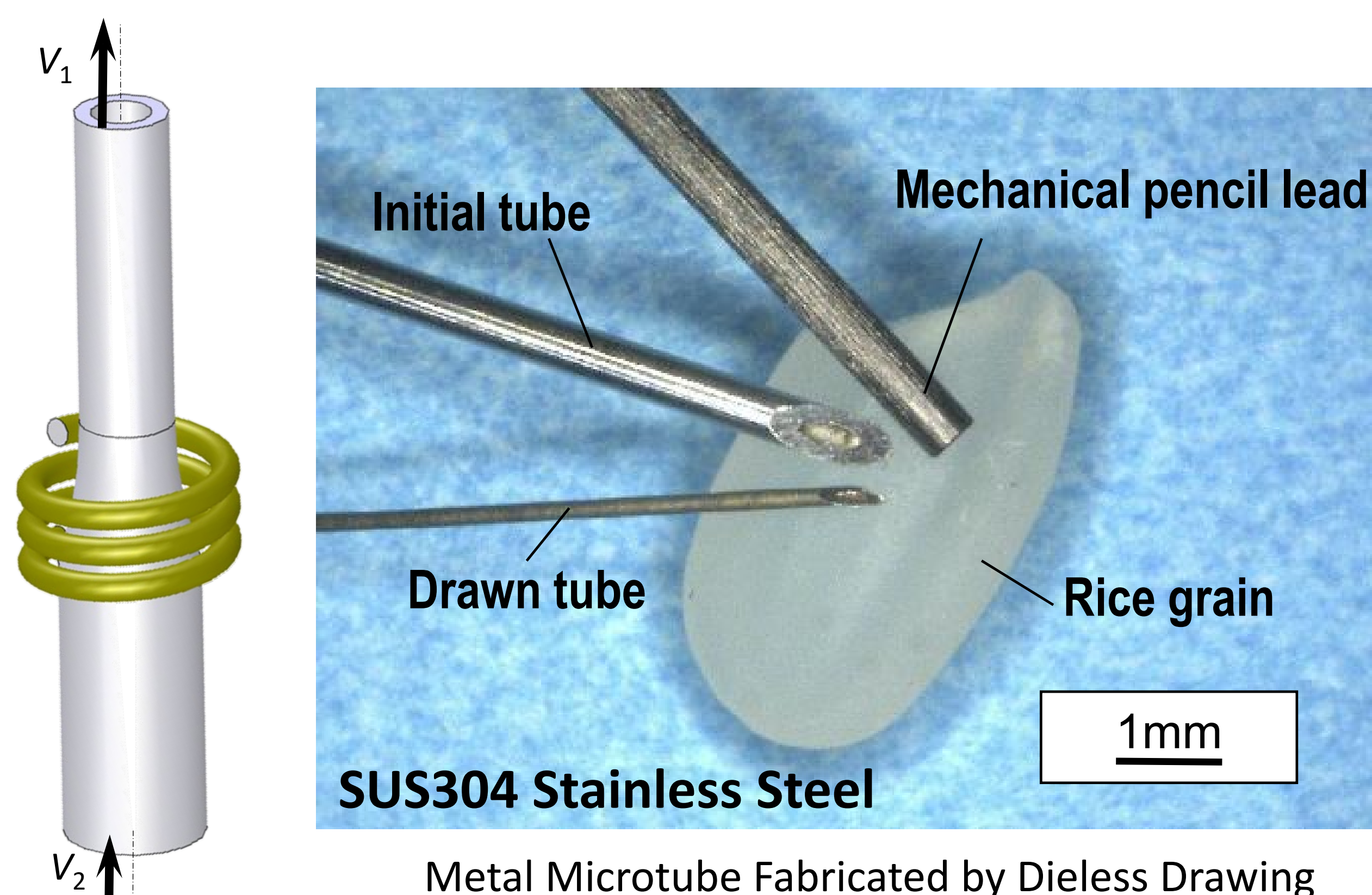
A strong point in Japan Industry is said to be the material field. However, even if valuable and novel materials are developed, it is impossible to fully demonstrate the function of the materials without forming and processing technologies that makes use of it. We are focusing on “the deformation of 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 such as stamping process, tube forming, material modeling, dieless forming and micro metal forming by focusing on “permanent deformation of the materials”.

Micro Metal Stamping Process for Medical and Electric devices

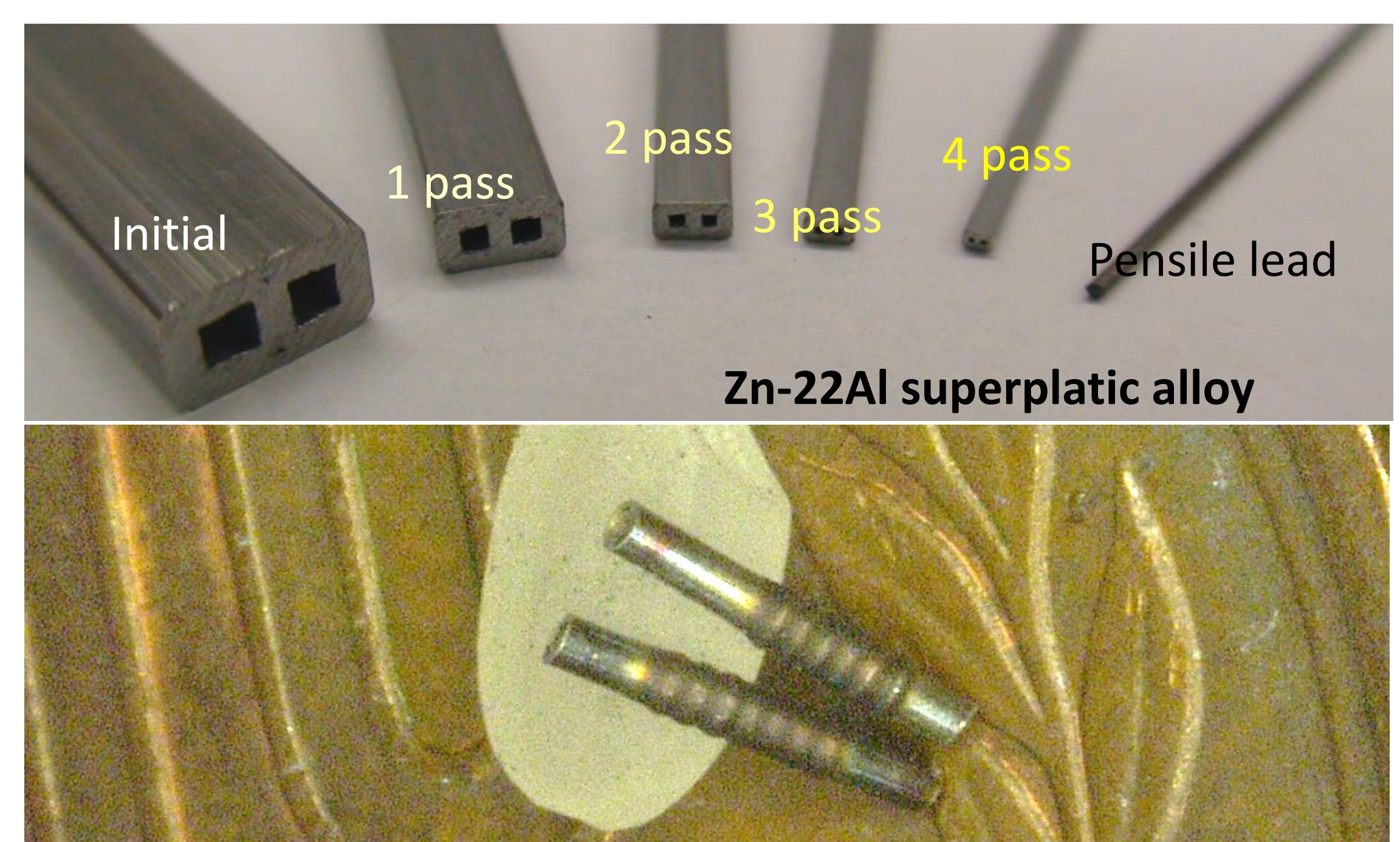


Prediction of Surface Roughening Behavior

Novel Micro Tube Forming



Metal Microtube Fabricated by Dieless Drawing



Micro Dieless Bellows Fabrication