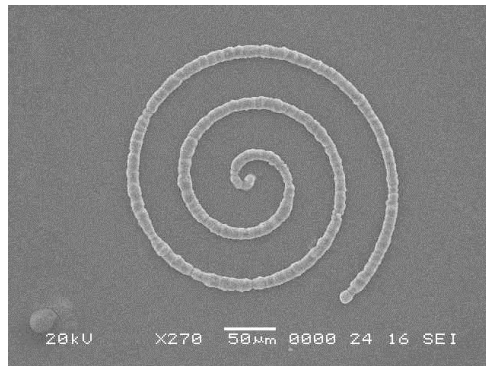
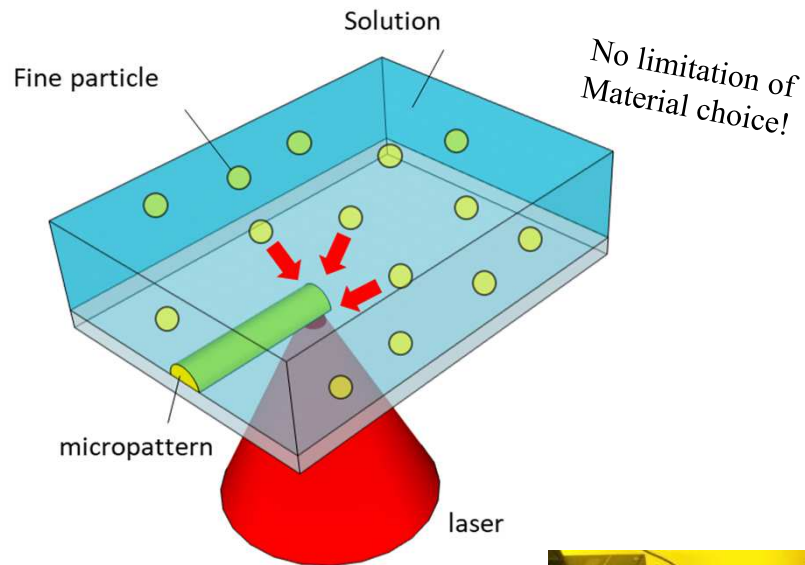


Laser Micro-/Nanofabrication & Optical MEMS

Assoc. Prof. H. Nishiyama

Versatile Direct Laser Writing



Micropatterns by DLW



Direct laser writing system

Versatile direct laser writing, not limited by material photosensitivity, was developed using ultrashort pulse laser irradiation. Direct laser writing is a powerful tool for 3D micro-/nanofabrication. However, there has been intrinsic limitation of material choice so far. Namely, DLW cannot be applied to non-photosensitive materials. Adequate optical properties of target material are essentially required. To overcome this limitation, our group has studied a versatile DLW, which is based on nonlinear light-based assembly process.

- Direct laser writing of functional materials
- 3D micro-/nanofabrication
- Laser-based assembly process in solution
- Multi-modal soft micro-actuators for micromanipulation

We welcome collaborative research, particularly, with experts of nanomaterials and micro-/nanoscience. Our group has a wealth of research experience and resources on photo-excited phenomena.

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Research Interest : Laser microfabrication,
Nanophotonics, MEMS

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