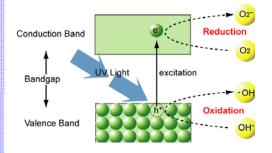
光触媒による三次元金属微細構造創成に関する研究

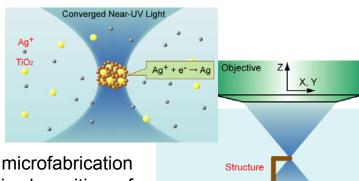
A Novel Microfabrication Technique for Three-Dimensional Metal Structures by Photocatalysis

OBJECTIVES

数十マイクロメートルのスケールを持つ、複雑な三次元金属微細構造を 創成するための新しい手法として、光触媒を利用した手法を開発する.

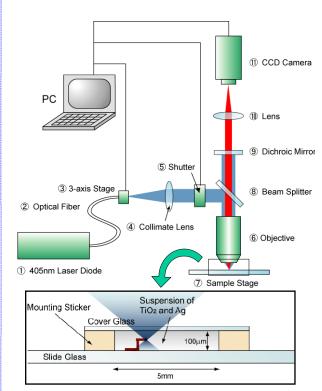
3D Microfabrication technique by Photocatalysis



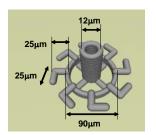


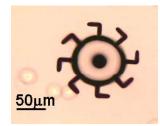
We have proposed a new microfabrication technique based on photocatalytic deposition of metal.

Development of 3D microfabrication system

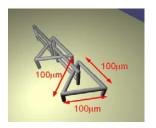


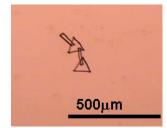
Sample Stage (Enlarged)





3D micro-rotor structures.





3D complex wire-framed structures.

The various fabrication results of 3-D microstructures with the size scale of several 10 μ m confirmed the feasibility of the proposed method.

Ref.) M. Okuno, et. al., A Novel Microfabrication Technique for Three-Dimensional Metal Structures by Photocatalysis, Proceedings of the 21th ASPE Annual Meeting, 301-304, 2006