

## 36-28 Nano-Surgery System by Ultra-Precision Semiconductor Technology

大学院自然科学研究科	教 授	久保田	弘
電気システム工学科	助 授	中 田	明 良
大学院自然科学研究科	前期課程	居 村	史 人
	後期課程	小 坂	光 二
		江 頭	義 也

The target of the usual operations on bio cells called micro-surgery is still cell itself or the nucleus whose size in length is greater than several ten-micrometer. The accuracy of the manipulation is sufficient in the range of micrometer. Recently, it is strongly demanded to develop the operations for not only nuclei but also cell organelles, such as chloroplasts for a new crossbreed of crop, mitochondria for the biomedical treatment against mitochondrial disease and so on. The cell organelles have the size smaller than 1-micrometer, where the manipulating accuracy should be required for the range of nanometer. We named the system Nano-Surgery system.

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