

# Editorial



A nano and micro technologies have been one of the driving force in improving the performance of devices and systems for optical, RF and bio applications in the convergence era. It is a great pleasure to have a special issue on nano/micro system technologies for September 2007 issue of JSTS. In this special issue, seven papers are presented which provide recent advancement and progress in the field of nano/micro system technologies.

The first paper by H. Fujita presents a concept of heterogeneous integration with varieties of devices and functionalities to form micro/nano systems.

Next three papers address bio applications. The second paper by K. Kwon et al. reports a separation method of human breast cancer cell from others using adhesion force difference on nano structures formed inside the channel. The third paper by K. Hwang et al. presents the label-free biomolecule detection using nanomechanical microcantilevers operated in vibration modes. The fourth paper by Y. Lee et al. describes the non-enzymatic electrochemical sensor micro-chip integrated with CMOS readout circuitry.

The last three papers report on RF and optical applications. The fifth paper by A. Liu et al. presents RF MEMS SPDT lateral switch with switching circuits to form a tunable filter. The sixth paper by S. Kang et al. describes the results of new type of MEMS switch using vertical actuating comb drives. The last paper by C. Lee reports recent advancements on planar variable optical attenuator using MEMS technologies.

We would like to thank the authors from all around the world for their great contributions for this special issue of JSTS. We also would like to thank all the reviewers and staffs involved in the process of publication.

Kukjin Chun

Editor of nano/micro system technologies special issue

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