

## Fabrication of Nanopattern Using Nanoimprint Lithography for the Application to Biochip

최동식<sup>1</sup>, 최호길<sup>2</sup>, 최정우<sup>2,1</sup>, 오병근<sup>2,1,\*</sup>  
<sup>1</sup>서강대학교 바이오융합기술학과;  
<sup>2</sup>서강대학교 화공생명공학과  
(bkoh@sogang.ac.kr\*)

Nanopattern has been a very essential part in the sphere of biodevices including biochip. Thought there are so many lithography techniques we choose nanoimprint lithography because of its several advantages such as resolution, reliability, and process speed, compared to conventional lithography. Especially, ultraviolet-nano imprint lithography (UV-NIL) is a very promising technology compared with thermal type in view of cost effectiveness. By using UV-NIL, nano-scale to micro-scale pore shaped nanostructures was fabricated on large scale gold plate at mild condition. The fabricated nanopatterns were characterized by FE-SEM. Finally, a protein array was fabricated on the pore shaped nanopattern. In this study, the proposed technique can be useful as a method for the fabrication of nanoscale protein chip. **Acknowledgments:** This research was supported by the Nano/Bio science & Technology Program (M10536090001-05N3609-00110) of the Ministry of Science and Technology (MOST), by the Core Environmental Technology Development Project for Next Generation funded by the Ministry of Environment of Korea, and by the Korea Government (MOST) (2006-05374).