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Label-free ToF-SIMS Chemical Imaging Analysis for Micropatterns of Proteins and Cells

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Micropatterns of spores displaying heterologous proteins have been recently generated by using microcontact printing (μ CP) of the biotin-streptavidin system⁽¹⁾. To see micropatterns of proteins and spores, bulky fluorophores of TRITC and EGFP were labeled to streptavidins and spores, respectively. For the present work, we will show that it is possible to obtain dye label-free chemical images of micropatterns of proteins and human cells by using the ToF-SIMS technique. Particularly, our discussion of the usefulness of cluster analysis ion beams will be based on comparison experiments using Ga^+ , Au^+ and Au_3^+ primary beams.

[참고문헌]

1. Tae Jung park, Kyung-Bok Lee, Seok Jae Lee, Jong Pil Park, Zee-Won Lee, Sang Yup Lee, and Insung S. Choi, J. Am. Chem. Soc., 126, 10512 (2004).