

Intracellular potential measurements of adherently growing cells using micro-needle arrays.

Tautorat, C., Köster, P. J., Held, J., Gaspar, J., Ruther, P., Paul, A., Cismak, A., Heilmann, A., Gimsa, J., Beikirch, H., Jonas, L., Baumann, W., 2008. In L. E. Locascio (Ed.): The proceedings of [Micro]TAS 2008 Conference. Volumes 1 & 2 ; the Twelfth International Conference on Miniaturized Systems for Chemistry and Life Sciences ; San Diego Sheraton Hotel & Marina, San Diego, California, USA, October 12 - 16, 2008, 1777–1780, Chemical and Biological Microsystems Society, San Diego, CA, USA. ISBN 0979806410.

Abstract: *We present a new sensor chip system for intracellular potential measurements of adherently growing cells using micro-structured needle electrode (MNE) arrays. Existing methods for intracellular investigations are time-consuming, tedious or limited to the analysis of suspended cells. However, most biological cells grow adherently. To overcome these methodological limitations a novel technique, local micro-invasive needle electroporation (LOMINE) in MNE arrays, has been developed. LOMINE opens the cell membrane for introducing a MNE into the cytoplasm. This paper describes the fabrication process of the MNE-array chips and first cell electroporation experiments.*

U
Rostock



Traditio et Innovatio