Investigation of Cell-Sensor Hybrid Structures by Focused Ion Beam (FIB) Technology.

Heilmann, A., Altmann, F., Cismak, A., Baumann, W., Lehmann, M., 2006. *In* Focused ion beams for analysis and processing, Materials Research Society, Warrendale, PA. ISBN 160423430X. MRS Fall Meeting & Exhibit, 27. November - 01. December. Boston, Massachusetts, USA.

Abstract: *For the investigation of the adhesion of mammalian cells on a semiconductor biosensor structure, nerve cells on silicon neurochips were prepared for scanning electron microscopy investigations (SEM) and cross-sectional preparation by focused ion beam technology (FIB). The cross-sectional pattern demonstrates the focal contacts of the nerve cells on the chip. Finally, SEM micrographs were taken parallel to the FIB ablation to investigate the cross section of the cells slice by slice in order to demonstrate the spatial distribution of focal contact positions for a possible three-dimensional reconstruction of the cell-silicon interface.*

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