News Title:
“Best Poster Presentation” on DBS 2013.

Short text:
Through Xenia Knigge, Fraunhofer IBMT and IHP received the “Best Poster Award” on the 8th German Biosensor Symposia 2013.

Main text:
On the 8th German Biosensor Symposia from the 10th to the 13th of March 2013 in Wildau Germany, an award for the Best Poster Presentation was given to:

X. Knigge(1), E. Laux (1), K. Nicklas (1), U. Kaletta (2) Ch. Wenger (2), R. Hölzel (1), F. Bier (1)
(1) Fraunhofer Institut für Biomedizinische Technik IBMT, 14476 Potsdam-Golm
(2) IHP – Leibniz institute for innovative microelectronics, 15236 Frankfurt / Oder

On the subject of:
“Dielektrophoretische Immobilisierung von Nanopartikeln und Proteinen an Nanoelektroden”

In this paper, applications of nanoelectrode arrays were evaluated, with emphasis on biological analysis. Nanoelectrodes have immense potential in the development of efficient, specific, sensitive, and intelligent sensors. In conjunction with the cost-effective CMOS based fabrication, these arrays could be used for applications of dielectrophoresis. In this work circular Tungsten-nanoarrays were produced by standard CMOS processing. Dielectrophoresis forces act on particles subjected to a nonuniform electric field, the perturbing effects arising from interactions with other cells and boundary surfaces, and the influence of electrical polarizations. The CMOS technology has also advanced sufficiently for dielectrophoresis to be used as a tool to manipulate nanoparticles for the fabrication of devices and sensors.

Fig. 1: Tungsten-based nanoarray, produced by standard CMOS processing