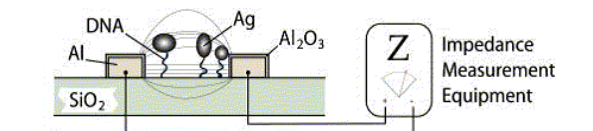
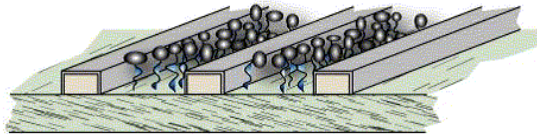




SOFT BIO-ELECTRONIC SENSORS

Sopartec, the technology transfer company of the Université catholique de Louvain (UCL), introduces cutting edge bio-electronic transducers.



Technology Keywords

- integrated bio-electronics
- electrochemical transduction
- intelligent sensing

Technology Market : Sensors

Our front-end bio-electronic transducers support microsystems' quality and versatility in the following fields :

- **Healthcare** : biochemical agents detection, pathogen screening ;
- **Vehicle control** : chemical health monitoring ;
- **Environment** : particles detection, water quality assessment ;
- **Swarm intelligence** : food, drugs or goods manufacturing process control, biometric devices complementation.

The cutting edge bio-electronic microsensors from UCL address market needs for **innovative sensing components** integrated in soft biochemical monitoring systems.

The UCL invention

Each of our patented bio-electronic transducers offers the best starting conditions to **versatile sensing** microsystems projects. Taking advantage from complex vector analysis as well as single-parameter detection, the UCL integrated **CMOS chips** extract maximum information out of minimum data.

Sensitive area down to **100 microns wide** (1-10 pF capacitance range) typically reaches the following performances :

- metallic **nanoparticles** detection starting from **1 % vol. concentration** ;
- metallic labelled DNA identification below **10 million molecules per cm²** – down to 30 pM in concentration ;
- up to **38 dB impedance change**.

UCL technologies feature low production cost since components can be manufactured in any CMOS semiconductor process.

Technology Status

This work is the subject of patent applications :

- PCT patent application filed on 10/09/2007 and published under No. WO 2008/028683 ;
- PCT patent application filed on 24/06/2003 and published under No. WO 2004/001403.

(internal file reference numbers : ADRE-13 and SOP-155)

Sopartec would like to talk to companies interested in developing and commercializing this opportunity.

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