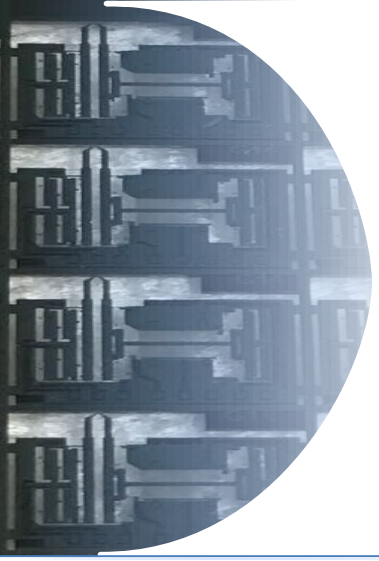


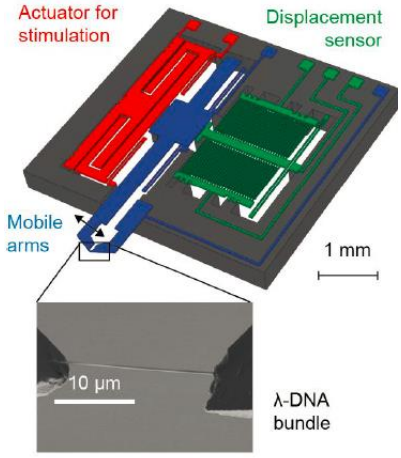
SENCET :

Silicon nano tweezers for single cell electro-mechanical analysis

A NEW TECHNOLOGY FOR SINGLE CELL ANALYSIS

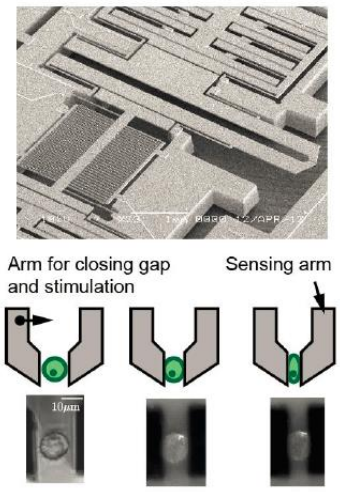
The SENCET technology relies on the use of **micromechanical tweezers to catch a single cells** and **perform mechanical and electrical characterization of these cells.**

A: Schematic view of SNT with integrated functions



Biomolecules manipulation

B: SEM view of a processed device



Cell characterization

Concept and working principle of the SENCET sensor. Illustration of the Silicon Nano Tweezer system (SNT) (A), able to catch biomolecules and / or individual cells. Cell characterization principle (B).

The SENCET sensors are currently produced in small batches in laboratory environment. The feasibility of their usage in medical environmnent has been proven already. The SENCET sensors are currently being used in oncology for the study of the degradation of DNA under irradiation conditions.

The SENCET system can perform electrical and mechanical analysis on the same single cell. Based on these measurements, differenciation between potential metastatic cells and normal cells can be achieved.

APPLICATION DOMAINS

The SENCET platform can be used as a laboratory equipement to analyse all types of cells. Metastatic cancer cells can be easily and quickly isolated and measured, so the device coud be used for the rapid assessment of circulating tumor cells.

CONTACT

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