

Title (en)

NANOTUBE SENSOR DEVICES FOR DNA DETECTION

Title (de)

NANORÖHRCHENMESSVORRICHTUNGEN ZUR DNA-DETEKTION

Title (fr)

DISPOSITIFS DE DETECTION A NANOTUBES, DESTINES A LA DETECTION DE SEQUENCES D'ADN

Publication

**EP 1781771 A2 20070509 (EN)**

Application

**EP 05810377 A 20050824**

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Abstract (en)

[origin: WO2006024023A2] A nanotube device is configured as an electronic sensor for a target DNA sequence. A film of nanotubes is deposited over electrodes on a substrate. A solution of single-strand DNA is prepared so as to be complementary to a target DNA sequence. The DNA solution is deposited over the electrodes, dried, and removed from the substrate except in a region between the electrodes. The resulting structure includes strands of the desired DNA sequence in direct contact with nanotubes between opposing electrodes, to form a sensor that is electrically responsive to the presence of target DNA strands. Alternative assay embodiments are described which employ linker groups to attach ssDNA probes to the nanotube sensor device.

IPC 8 full level

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