In Vivo RFID Chip

Tech ID: 20651 / UC Case 2008-500-0

BRIEF DESCRIPTION

The invention is a fully CMOS compatible RFID chip, thinned from the backside, with an integrated antenna, as a platform for bio-sensing. A transmit function is built in using CMOS circuitry so the RFID chip can send information back out of the body. The invention can be fabricated at any silicon foundry at low cost. The invention is physically small enough for non-invasive monitoring of patient health as an implanted device. Power is provided by a power source from outside the body, so that the implantation can be permanent and requires no battery.

SUGGESTED USES

The chip can also be used to control the release of drugs, or to electrically stimulate biological functions for either therapeutic or diagnostic purposes.

ADVANTAGES

Many different sensors can be integrated onto the chip. The chip will be small enough that control at the single cell level is possible.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	8,830,037	09/09/2014	2008-500

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OTHER INFORMATION

KEYWORDS

RFID chip, drug delivery

CATEGORIZED AS

» **Biotechnology**
» Health
» **Medical**
» Delivery Systems
» Diagnostics
» **Sensors & Instrumentation**
» Biosensors

RELATED CASES

2008-500-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Microfluidic Device for Mitochondrial Membrane Potential Measurement
- E-Nose: A Nanowire Biosensor with Olfactory Proteins

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