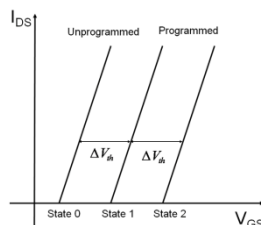
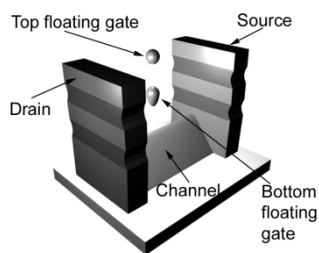




ULTRA-HIGH-INTEGRATION-DENSITY TECHNOLOGIES FOR FABRICATION OF MULTIPLE-LEVEL NANO-MEMORY CELLS AND CIRCUITS

SOPARTEC, the technology transfer company of the Université catholique de Louvain (UCL), provides unique ultra-high-integration-density, low-power-consumption, and fast-access-speed nano memory cells and circuits fabrication technologies.



Technology Keywords

- Facility-fabrication-method
- Multiple-level information storage
- Ultra-high-integration-density
- High-performance
- fully-compatible with CMOS technology

Technology Market : IC applications

Nano-memory cells and circuits are drivers of the semiconductor industry during the next decade. Their fabrication technology directly influences productivity and quality in the following fields :

- **Telecommunications** : GSM and Cellular pagers

- **Automotive areas** : GPS, EMS and Networking routers
- **Computers** : PC BIOS and HDD
- **Mass storage** : Digital Cameras, PDA Flash arrays and Voice Recognition
- **Videos** : Digital TV and Digital set top boxes
- **Audios** : MP3

The unique ultra-high-integration density technologies from UCL are compatible with CMOS technology and fulfill the market application requirements in multiple-level cell development, cell scaling and scaling limitations, low-voltage ability and product reliability and diversification in memory cells and circuits.

The UCL invention

UCL ultra-high-integration density technologies form a patent that enables the building of **nano memory cells and circuits** in any CMOS semiconductor process. Typical cell size is **100 nm²** while operation voltage can be as low as **3V** guaranteeing **10** years of retention time. Single or a few electrons charging ensures an access speed on the order of **ns** or faster.

Technology Status

This work is the subject of a patent application : PCT patent application filed on 23/09/2010 under No. PCT/EP2010/064060.

(internal file reference number : ADRE-24)

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

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