

納米電子:顯示器及照明
Nanoelectronics: displays and lighting

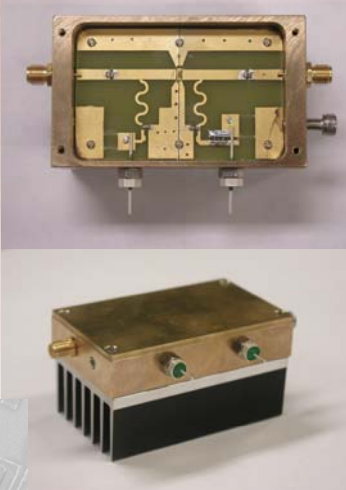
Other Novel Devices
其它新型電子器件

Fundamental studies on CMOS and non-CMOS transistors also lead to some useful devices, e.g., GaN based high-temperature electronics, high-power amplifiers, bio-chip sensors, etc.

受益於 CMOS 及 non-CMOS 器件之基礎研究成果, 我們亦致力研發多種新型實用的電子器件, 如基於氮化鎵材料的高溫電子器件, 高功率放大器, 生物芯片等。

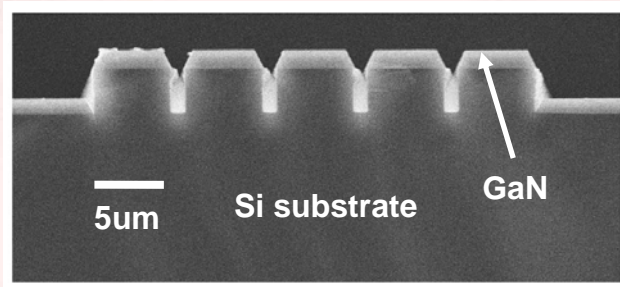
Power amplifiers for wireless communication (3G)
3G 無線電功率放大器

- Ten times more output power density
輸出功率提高了十倍
- Superior linearity at RF/microwave freq.
線性度良好



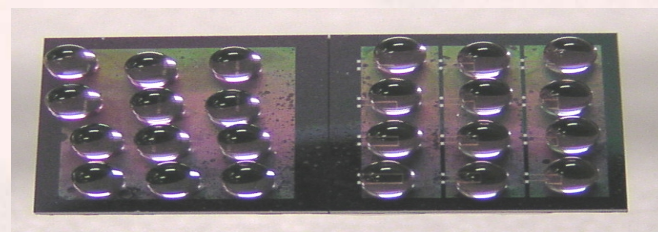
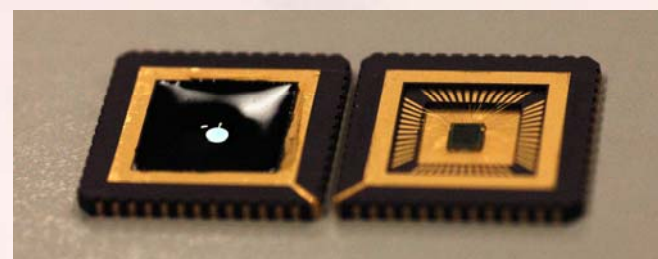
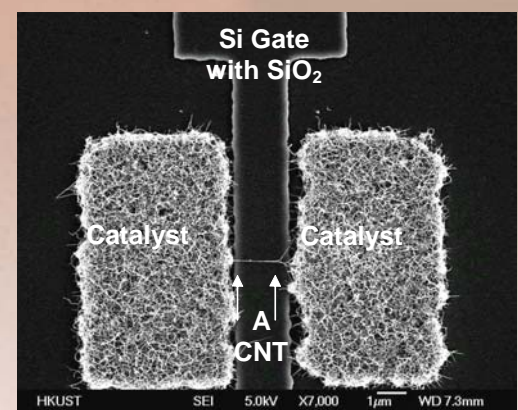
400um HEMT

SEM image of crack free GaN film grown on Si wafer. The film is used for pressure sensing. It can operate at high temperature up to 600°C. 電子顯微鏡照片: 氮化鎵薄膜, 氮化鎵薄膜壓力傳感器, 可在 600°C 高溫工作。



Fundamental study:
a local gate carbon nanotube field effect transistor (CNFET)

基礎研究: 碳納米管場效應晶體管



CMOS IC DNA Sensor:

Simultaneously detecting multiple specific DNA sequences has been realized by using a standard CMOS image sensor. CMOS 集成電路 DNA 檢測器: 以標準集成電路設計的檢測器, 可同時測驗多樣化 DNA 序列。

Tel: 23588475 Fax: 35210618 Email: inmt@ust.hk

納米科技推動可持續發展的知識型經濟 NanoTech: for a knowledge-based sustainable economy