

固態電子元件

Solid State Electronic Devices

Sept. 2010



EE3350 固態電子元件導論

Introduction to Solid-State Electronic Devices

■ Class Time & Room

- W3W4F4 ; 資電館 (CSEE) R206

■ Textbook

- [Fundamentals of Semiconductor Devices](#)
by Betty L. Anderson & Richard L. Anderson (Mc GRAW.HILL)

■ References

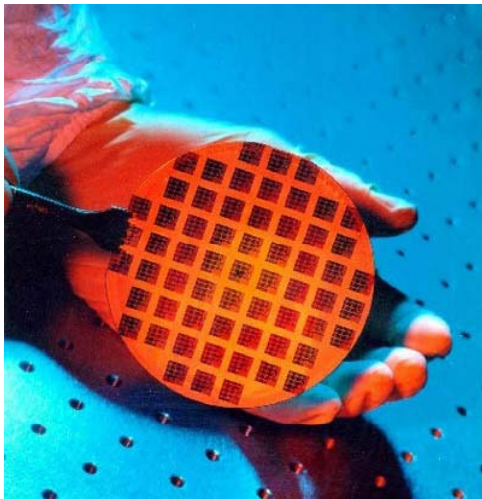
- [Semiconductor Device Physics and Technology](#)
by S.M. Sze (Wiley)
- [Solid State Electronic Devices](#)
by Ben G. Streetman & Sanjay K. Banerjee (Pearson)

■ Ftp for Handout and Material Download

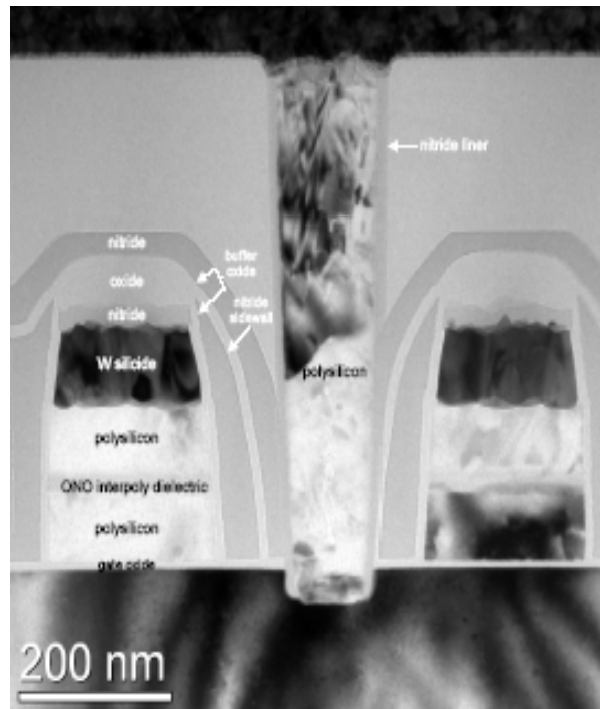
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What's Device ?

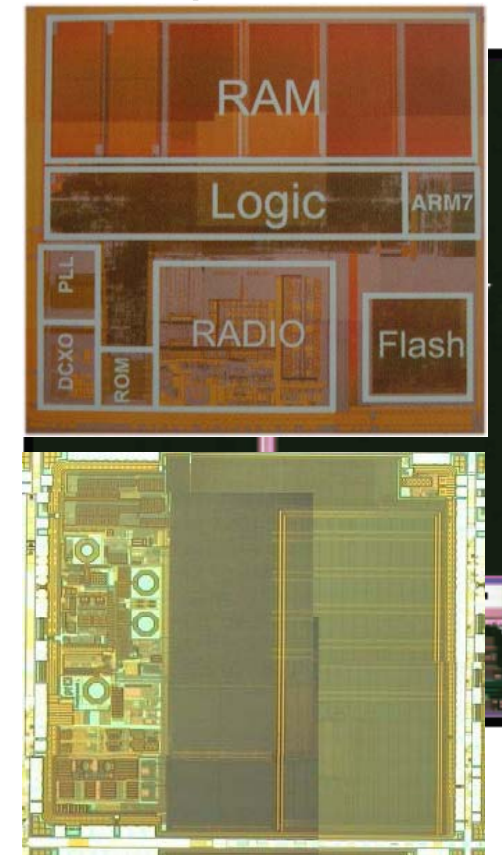
Manufacturing



Components

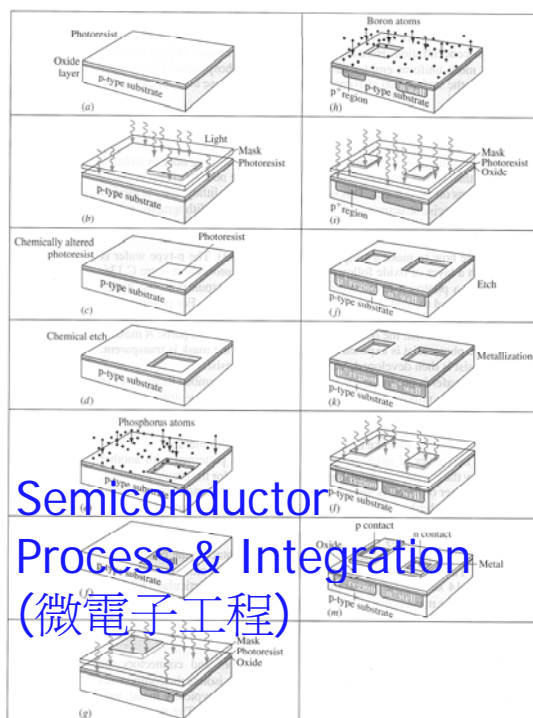


Composition



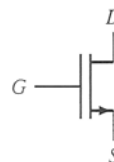
Where is Device ?

Process



Semiconductor
Process & Integration
(微電子工程)

Devices

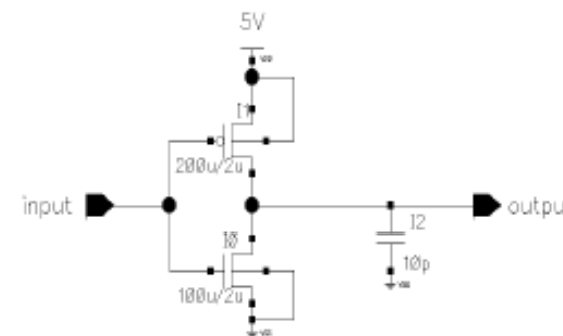


Semiconductor
Devices
(固態電子元件)

VLSI Device
(積體電路元件)

Semiconductor Memory
(半導體記憶體)

Design



Microelectronics
(電子學)

VLSI Circuit Design
(積體電路設計)

Analog IC Design
(類比IC設計)



Syllabuses

- Semiconductor Material & Energy States
- Semiconductor Diodes and Junctions
- MOS Capacitor and Charge Control Model
- Field Effect Transistors
- Bipolar Junction Transistors
- Memory and Power Devices



Grading Policy

- GRADING:
 - Test (xn) 40%
 - Midterm (x1) 30%
 - Final (x1) 30%



Information

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