

# 固態電子元件

## Solid State Electronic Devices

Fall, 2009

**NTHU EE**  
**EE3350 固態電子元件導論**  
**Introduction to Solid-State Electronic Devices**



# EE3350 固態電子元件導論

## Introduction to Solid-State Electronic Devices

### ■ Class Time & Venue

- W3W4F4 ; 資電館 (CSEE) R206

### ■ Textbook

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

### ■ References

- [Semiconductor Physics and Devices](#)  
by Donald A. Neamen (Mc GRAW.HILL)
- [Solid State Electronic Devices](#)  
by Ben G. Streetman & Sanjay K. Banerjee (Pearson)

### ■ ftp site for handout/material download

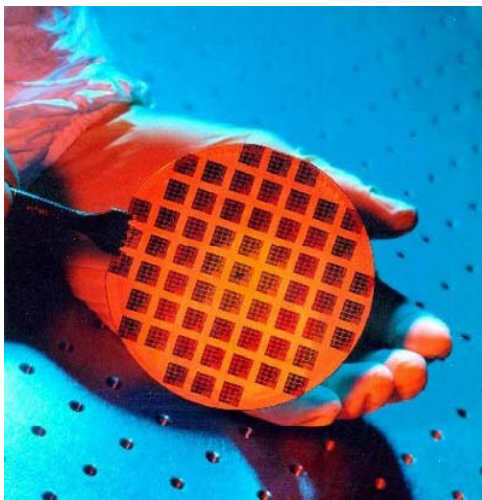
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login account : ee3350

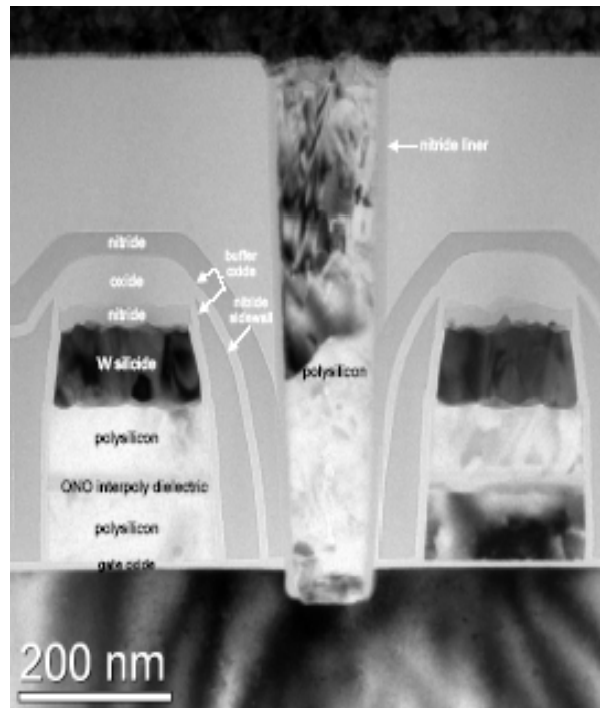
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# What's Device ?

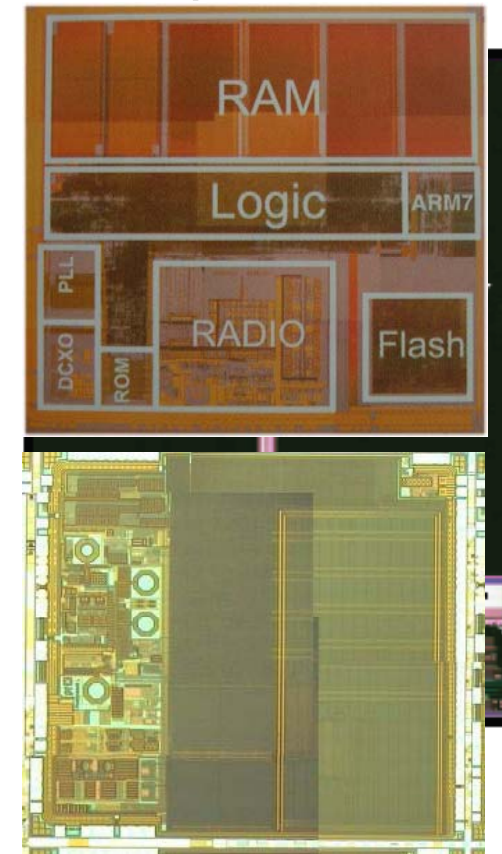
## Manufacturing



## Components

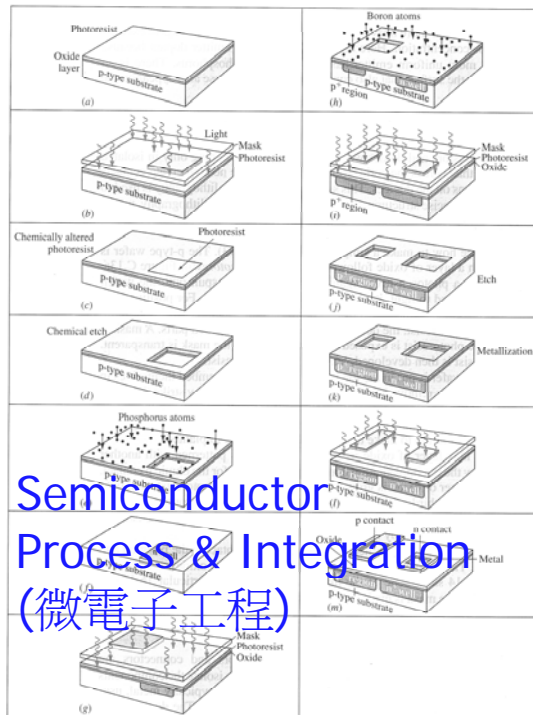


## Composition



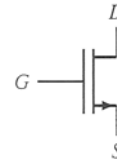
# Where is Device ?

## Process



Semiconductor  
Process & Integration  
(微電子工程)

## Devices

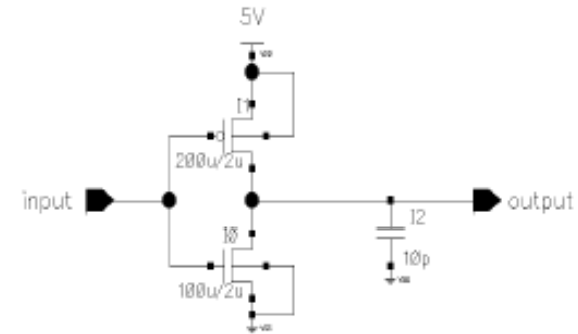


Semiconductor  
Devices  
(固態電子元件)

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
- Power and Memory Devices (Optional)



# Grading Policy

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



# Information

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