

# **Table of contents**

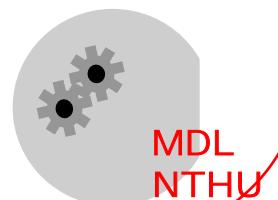
**1 Introduction**

**2 Basic IC fabrication processes**

**3 Fabrication techniques for MEMS**

**4 Applications of MEMS**

**5 Mechanics issues of MEMS**



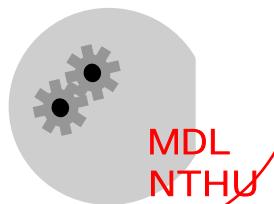
# **Chapter 1. Introduction**

## **1.0 IC and MEMS**

### **1.1 Terminology and general informations**

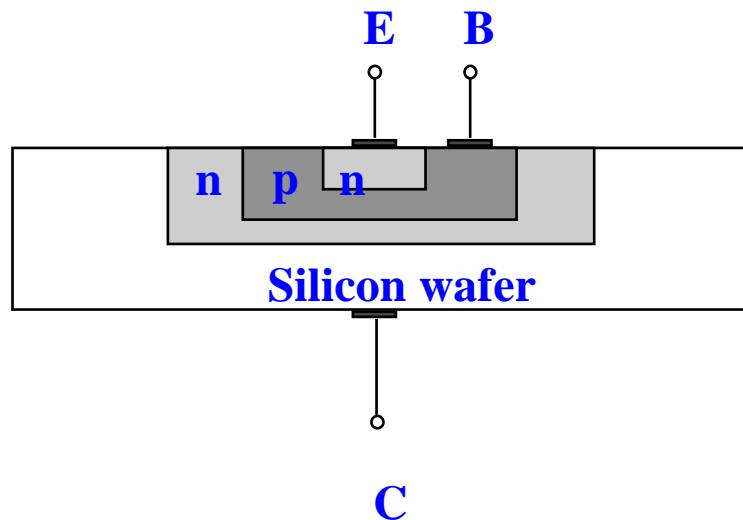
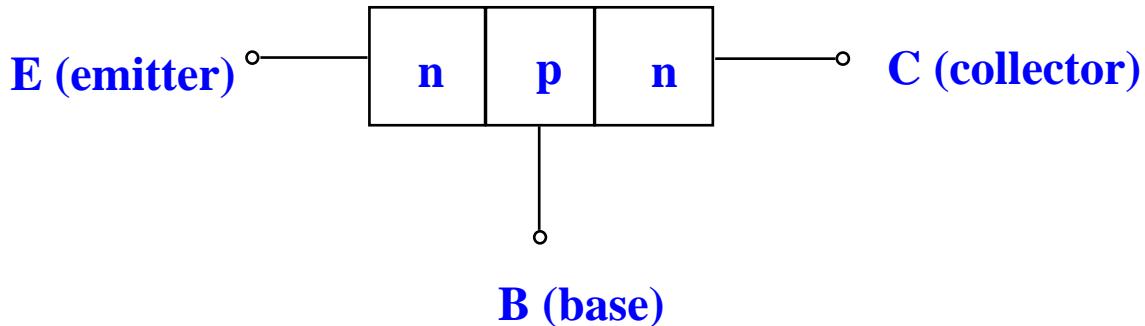
### **1.2 Historical background**

### **1.3 MEMS at Taiwan**

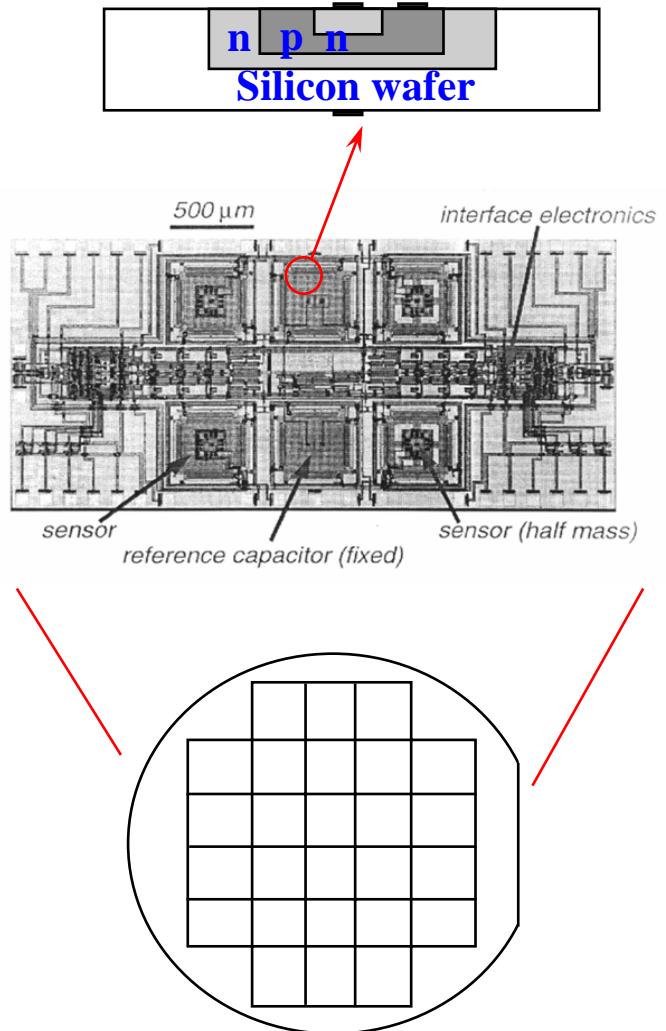


# 1.0 IC and MEMS

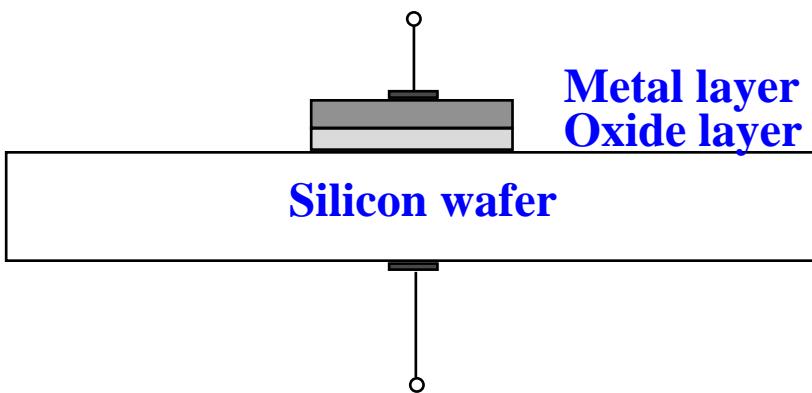
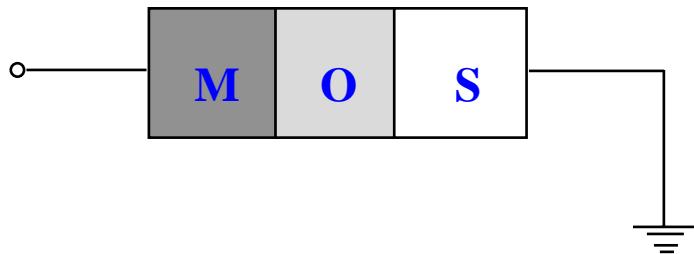
- BJT (Bipolar Junction Transistor)



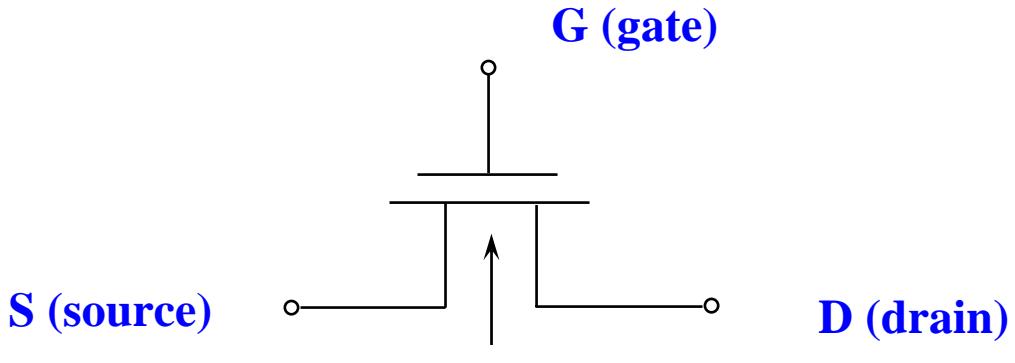
- A global view of an electronic component on a wafer



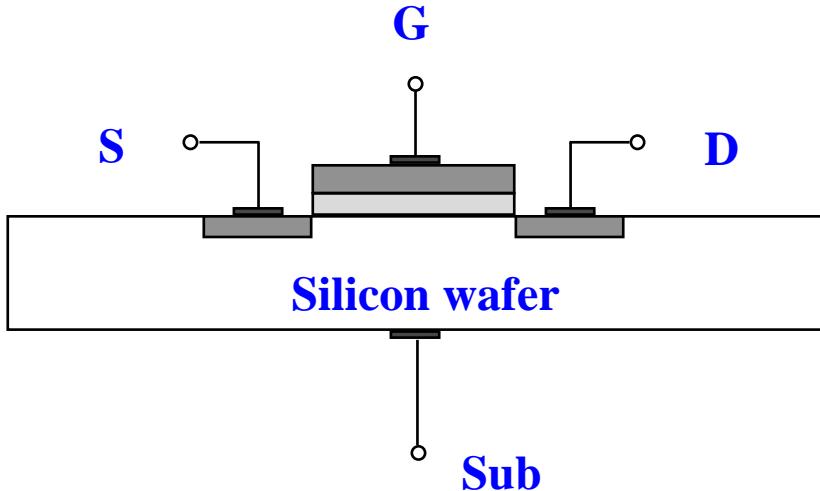
- **MOS (Metal Oxide Semiconductor) Capacitor**



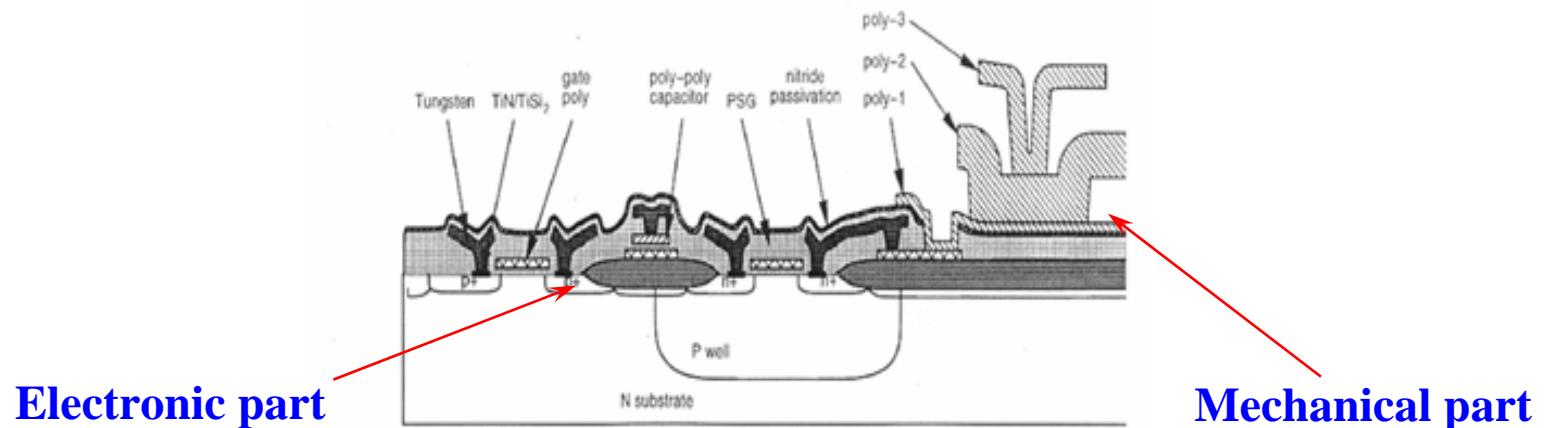
- **MOS (Metal Oxide Semiconductor) Transistor**



**Sub (Substrate voltage)**

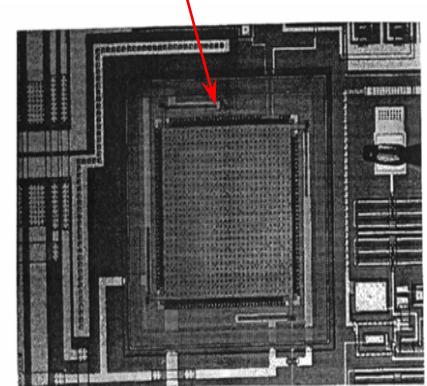
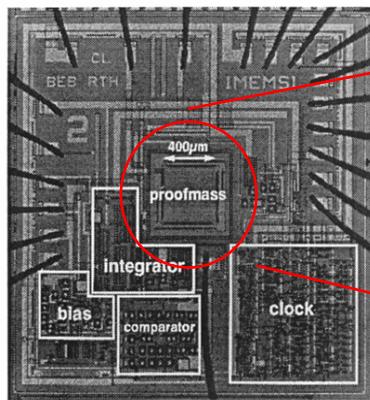
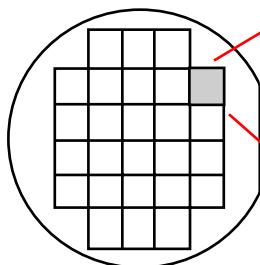


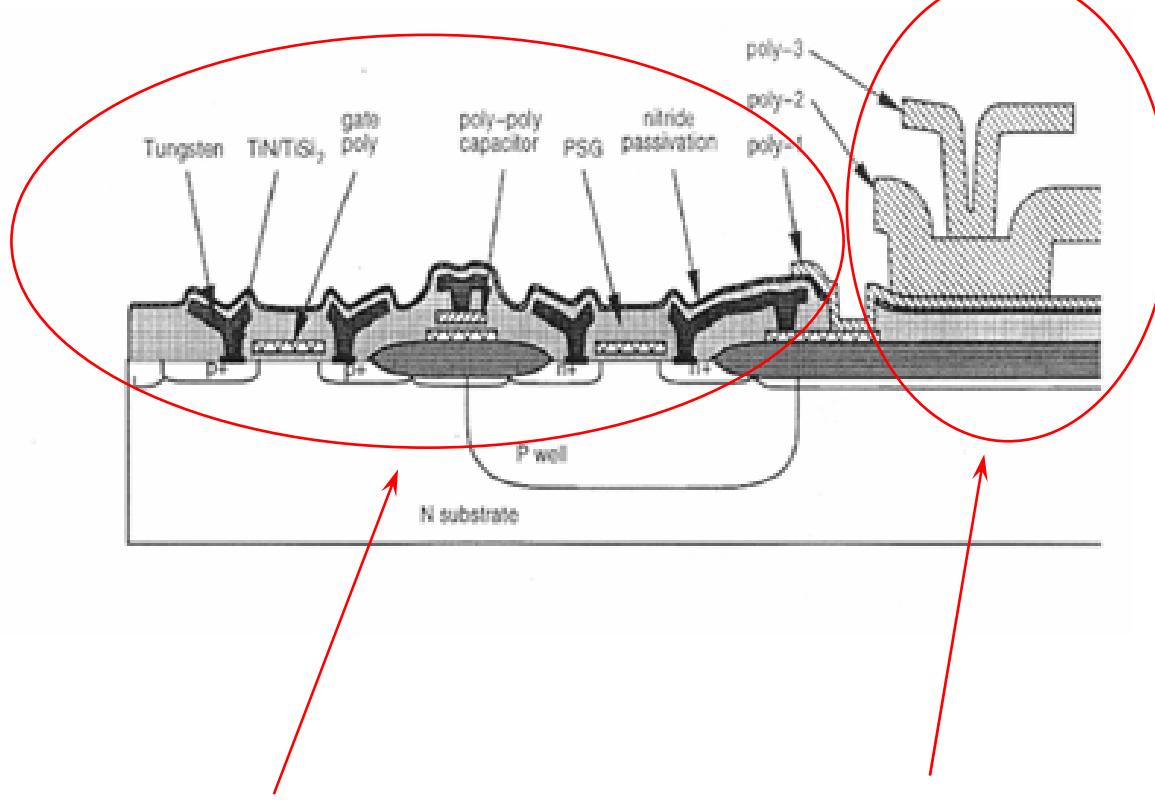
- **MEMS: Integration of electronic and mechanical components on a same chip**



**Electronic part**

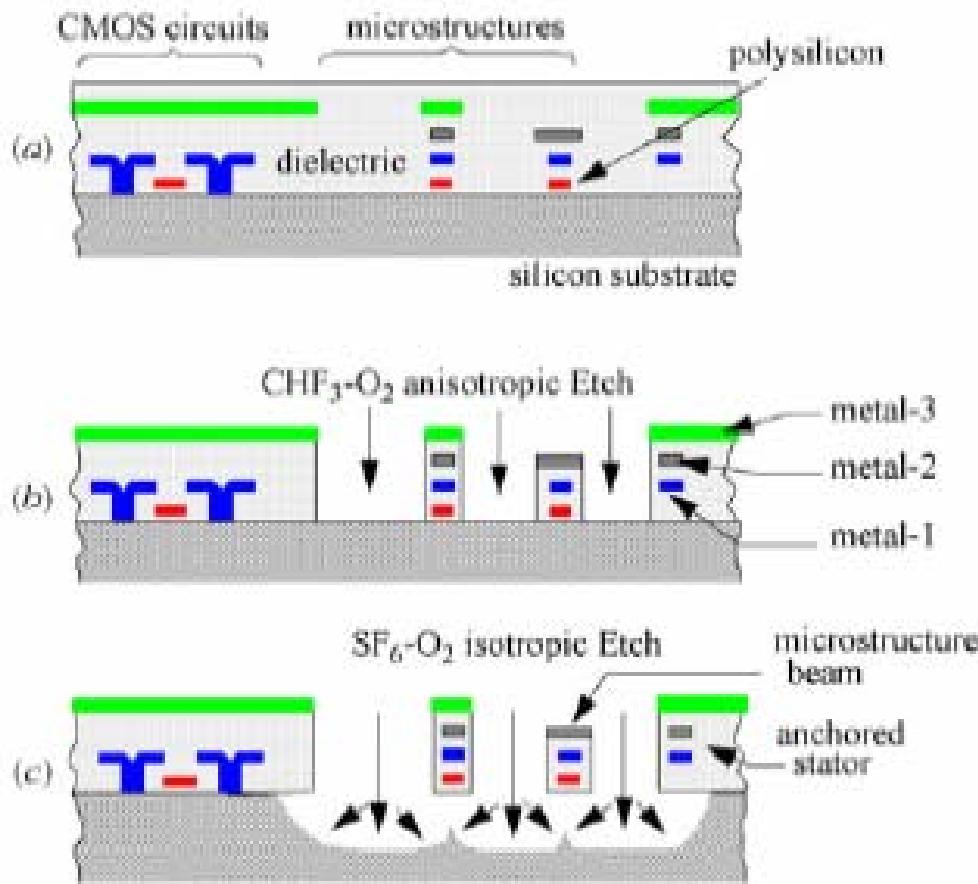
**Mechanical part**





Electronics part

Mechanical part



H. Lakdawala and G. K. Fedder, CMU, 2004