Semiconductor process

2022. 02. 14

NMBL

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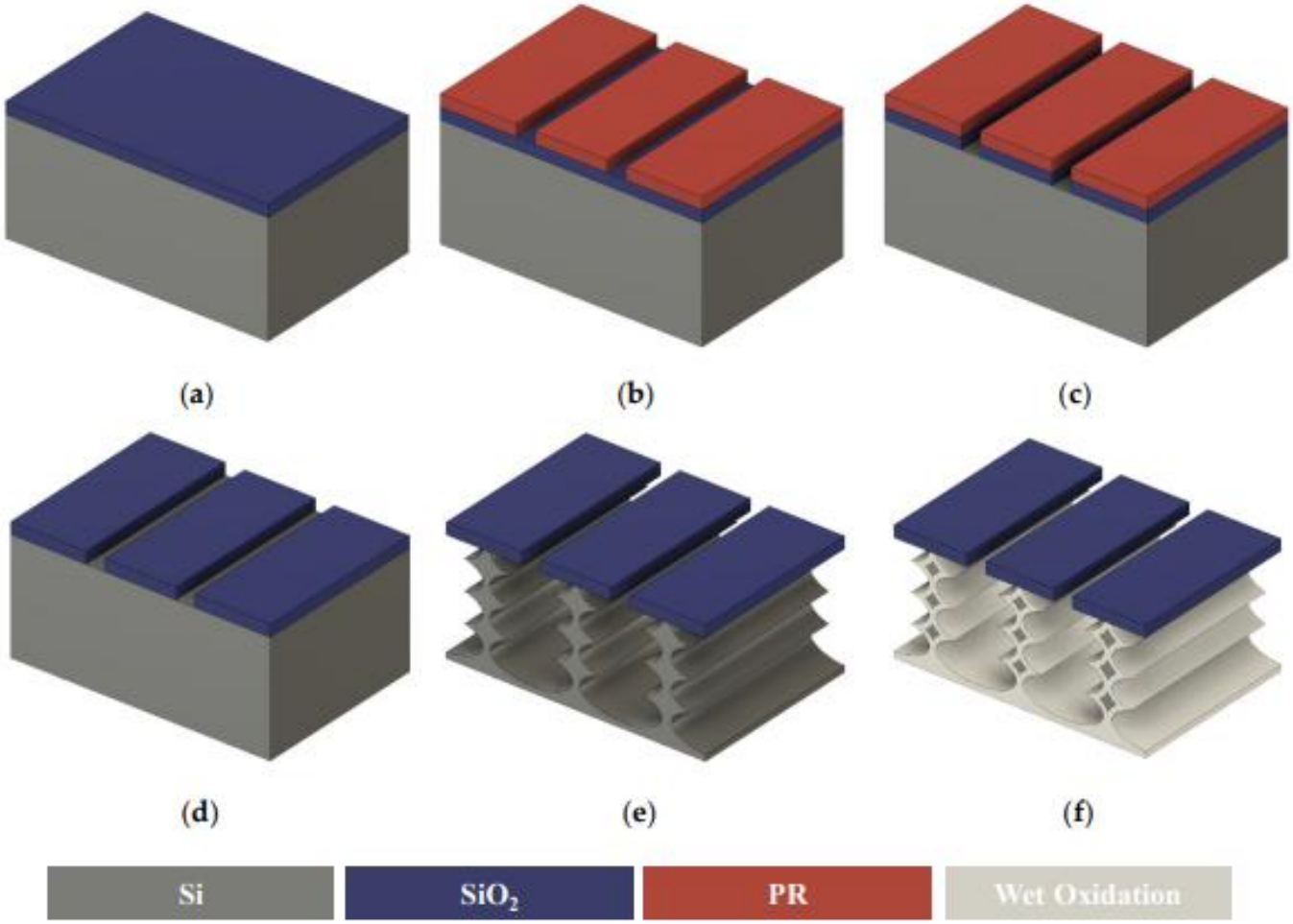
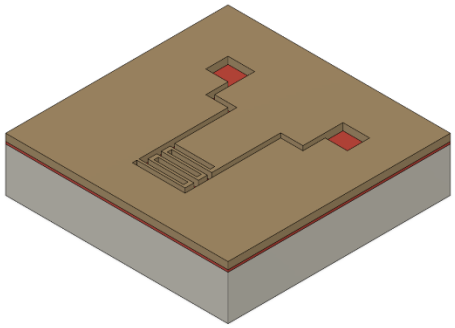
Nanowire

✓ Fabrication – Top-down Vertically-Stacked Silicon nanowire

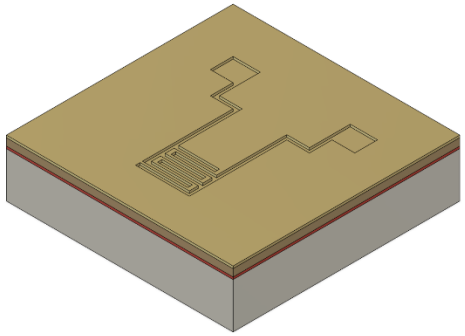


Nanowire

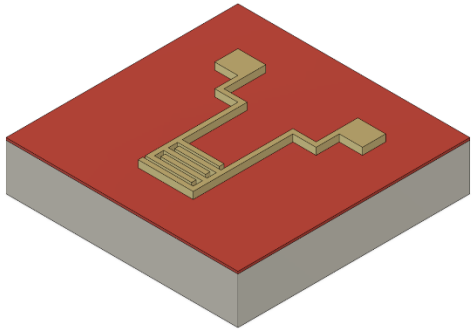
✓ pH sensor



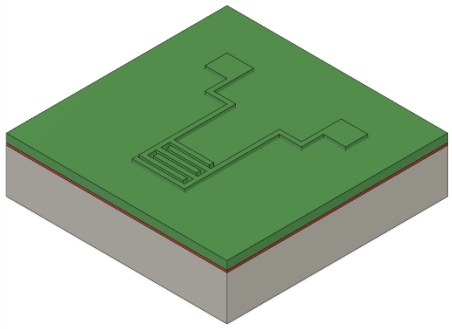
TEOS Dep & 1st Photolithography
(TEOS 5000A/ PR(GXR601 1.6u)



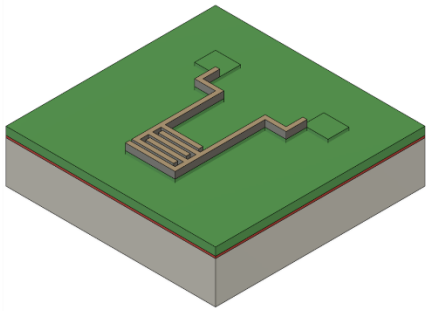
Ti/AU E-beam Evaporation



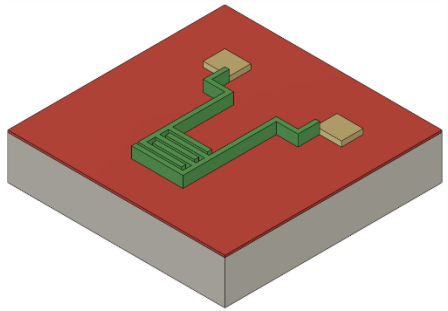
Ti/AU & PR Lift Off



Si_3N_4 Dep



2nd Photolithography



Si_3N_4 Etch

PR

TEOS

Si

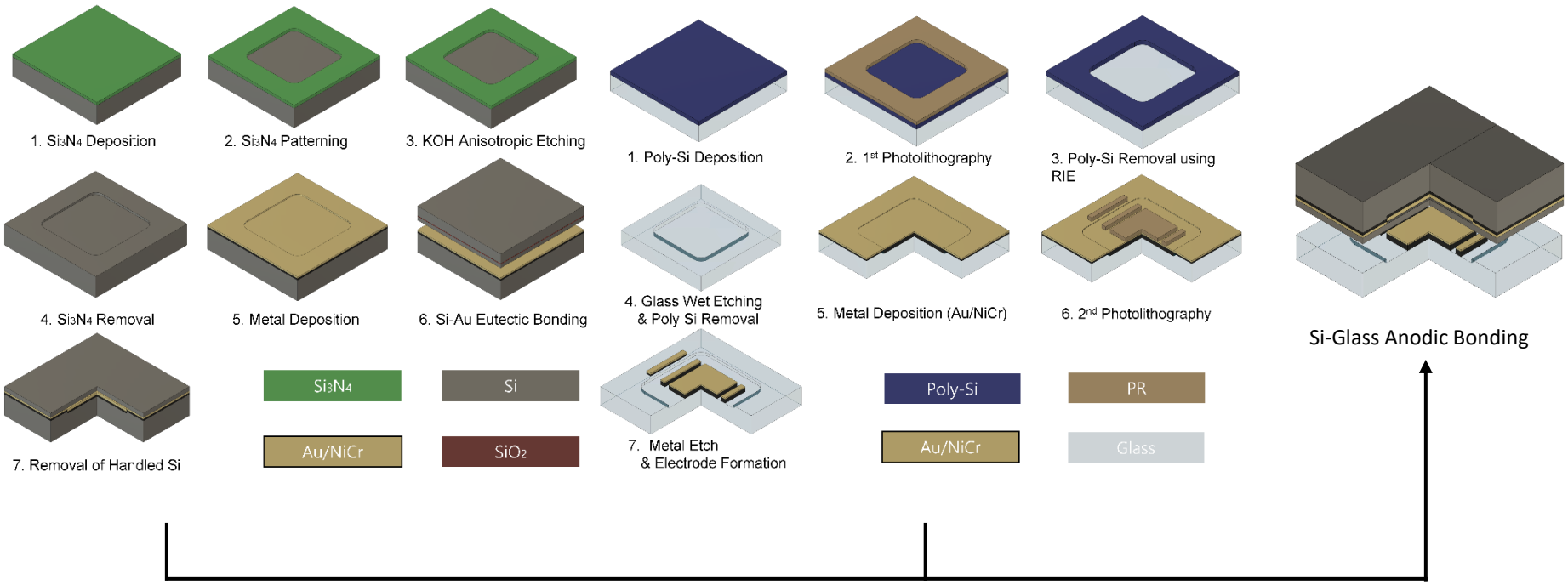
Ti/Au

Si_3N_4

Current Study

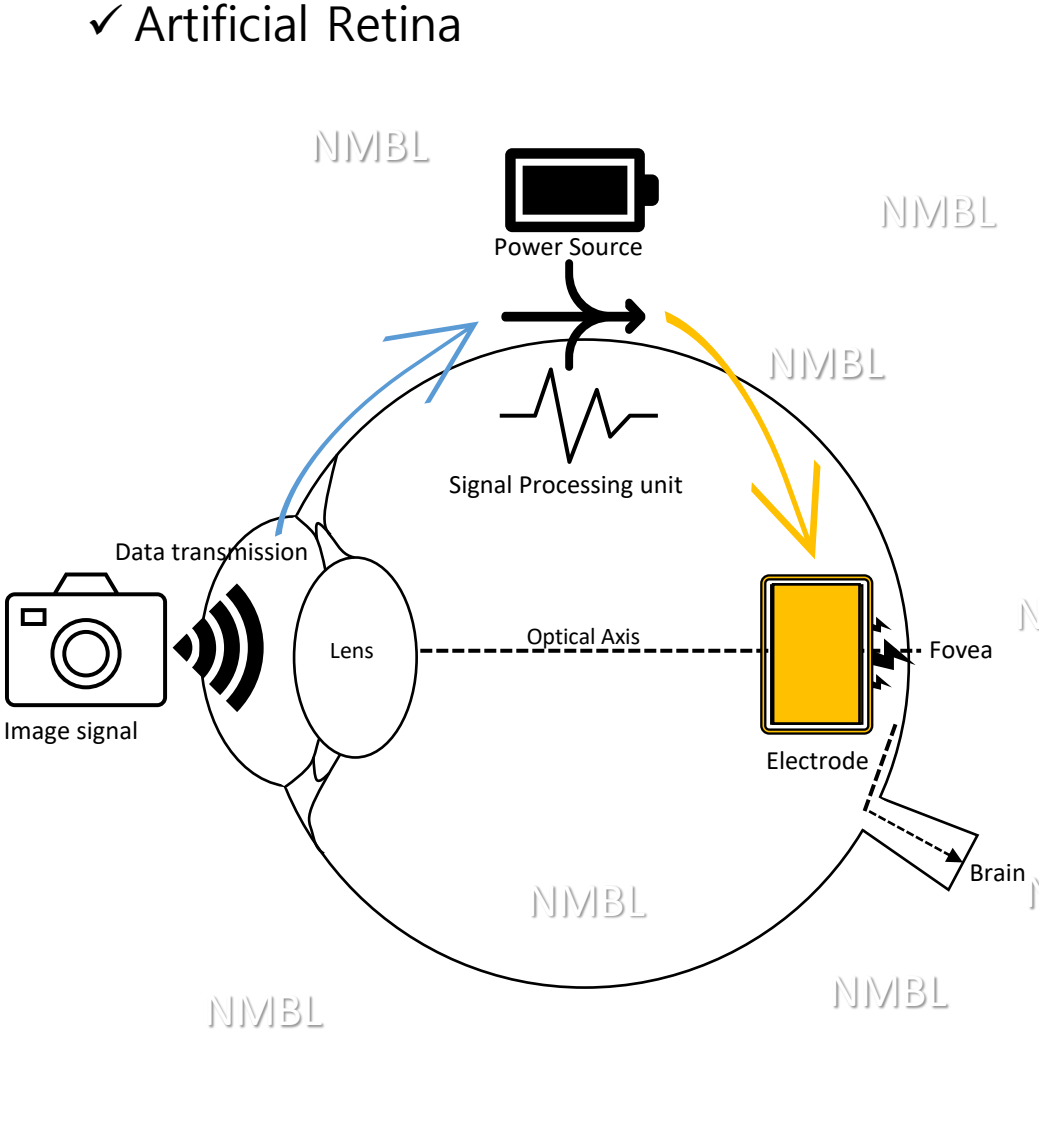
✓ Pressure sensor

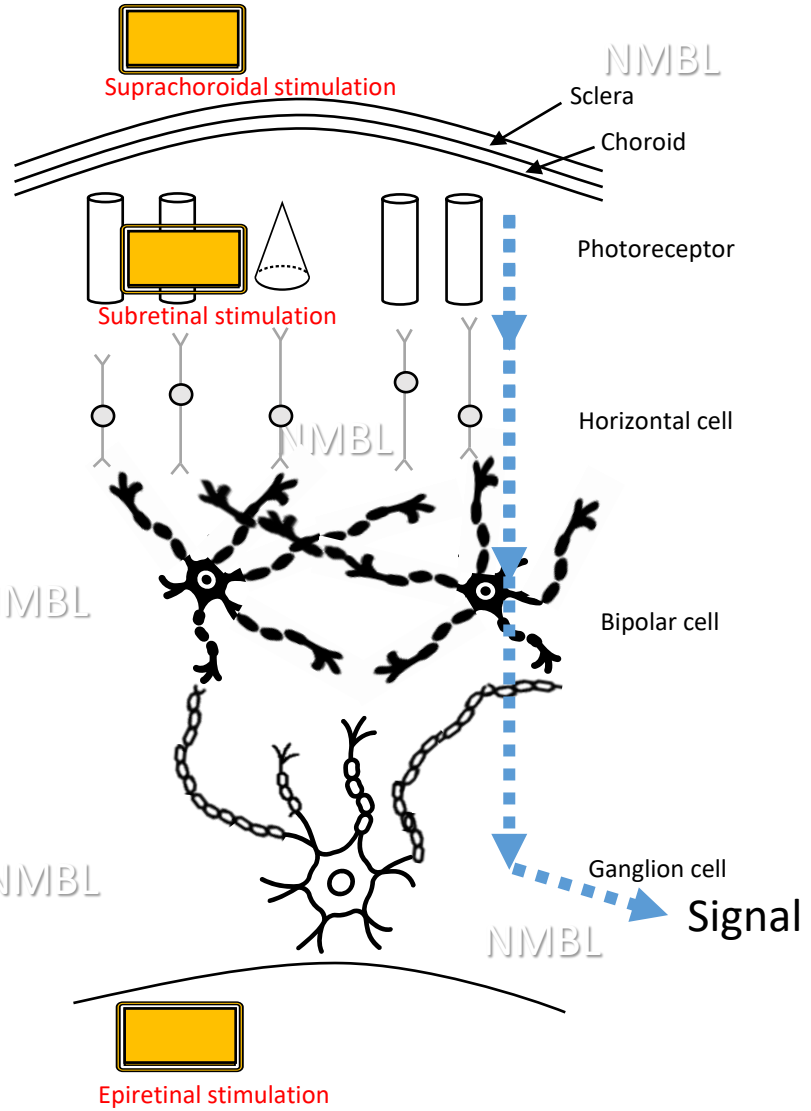
- 혈역학 압력센서 공정 방법
  - ✓ 절대압력센서의 진공챔버가 구성된 다이아프램 제조 방법
    - ✓ SOI wafer 활용 Si-Au Eutectic 본딩법
    - ✓ 이후 웨이퍼 본딩과 동시에 cavity 형성 및 다이아프램 구현
    - ✓ Glass에 Electrode 구성 후 본딩



Current Study

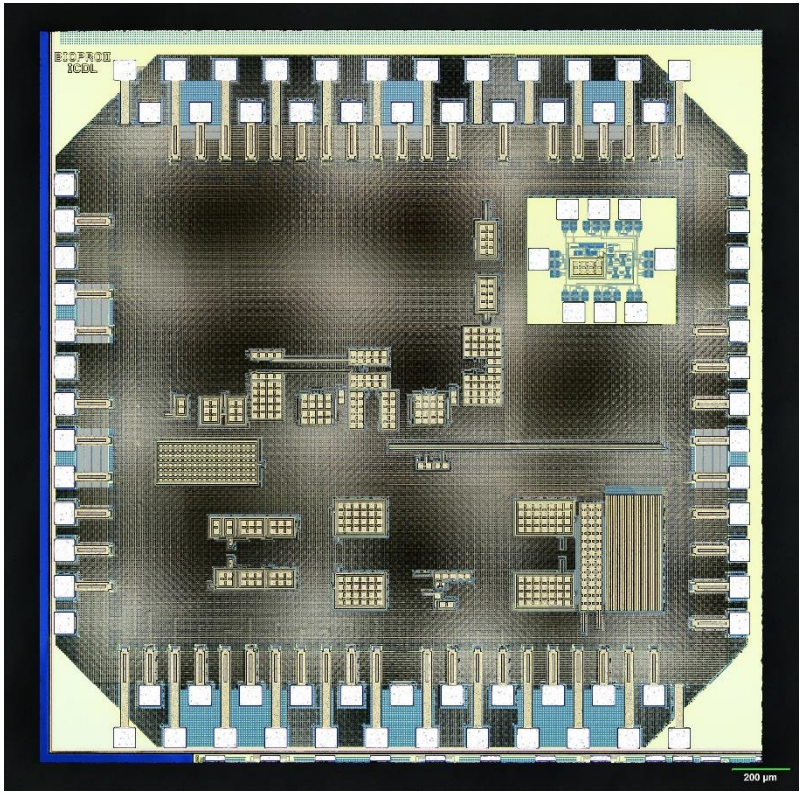
✓ Artificial Retina





Current Study

✓ Artificial Retina



Analog circuit design

TSMC 180nm Process

Biphasic Stimulator

Current ：50uA ~ 200uA

Thank you