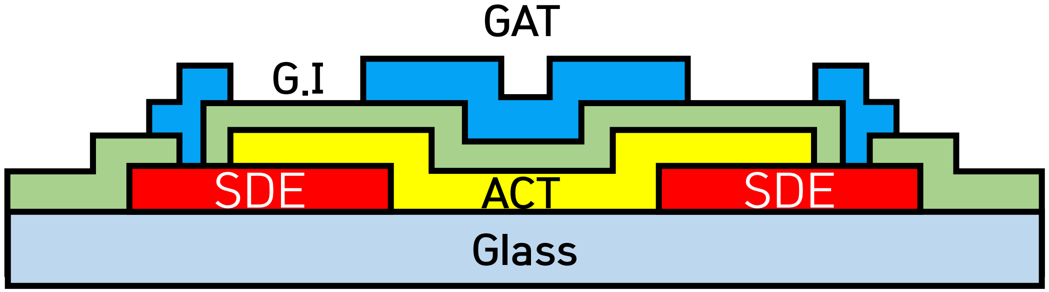
개인연구

실험 목적 : TFT 제작

Staggered structure TFT 및 회로 제작



SDE : Ta (500s depo – RIE 200 s [O_2:Ar:SF_6 = 40:10:10])
ACT : IGZO (1800s depo – BOE 150 s [BOE:DIW = 1:500])
G.I : Al_2O_3 (ALD Thermal 500 cycle) [약 30 nm]
GAT : Cr (1200s depo – wet etcher [180 s])

Al_2O_3 : ALD 재료 납품 완료

연구실 과제

성과 정리

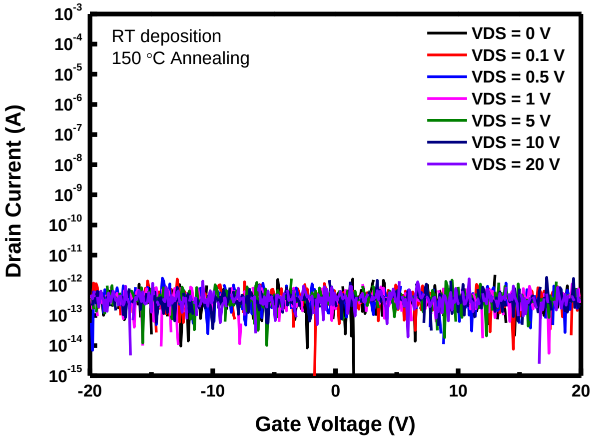
혁신렙

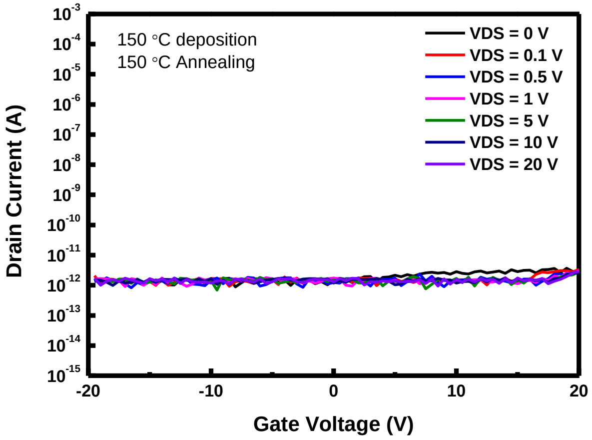
- ◆ Flexible QD-OLED 백플레인을 위한 PI 공정 및 산화물 TFT, Bank 공정 개발 및 셋업
  - ▪ Flexible QD-OLED에 최적화된 기판/배선/PI 기술 개발
  - ▪ 산화물 TFT 공정 셋업, IGZO TFT 기반 화소 공정, 뱅크 공정
  - ▪ Flexible QD-OLED에 최적화된 플렉서블 보상 화소 회로 개발

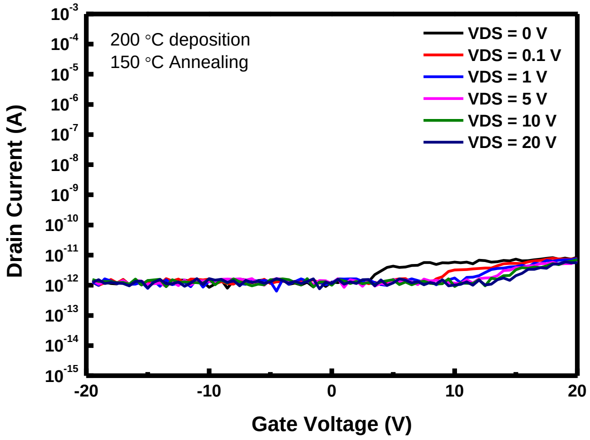
    - PI 최적화 공정 레시피 작성
    - Staggered structure TFT 공정 레시피 및 표준 공정 레시피 작성
    - 제작된 TFT 특성 작성

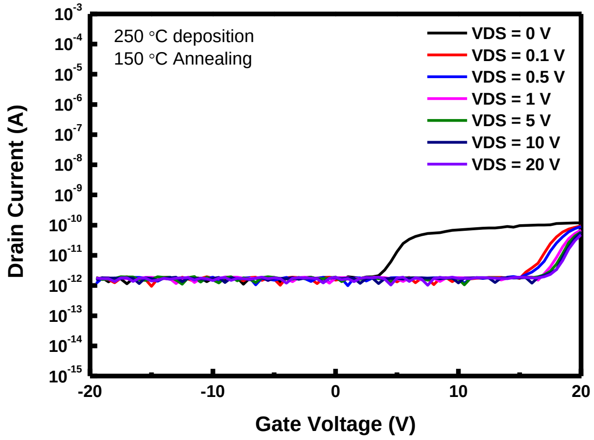
개인연구

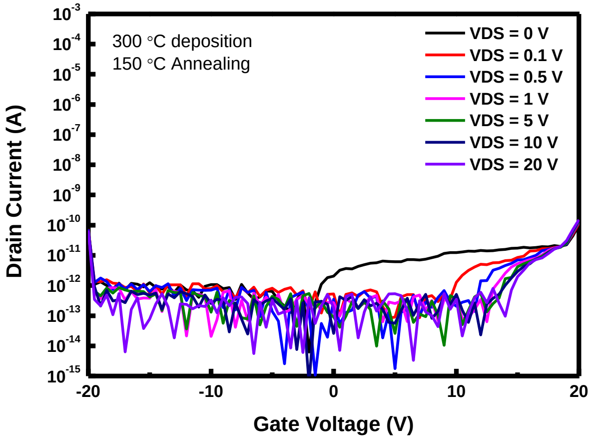
IGZO 증착온도별, 열처리 온도별 특성 정리 (150 ˚C annealing)

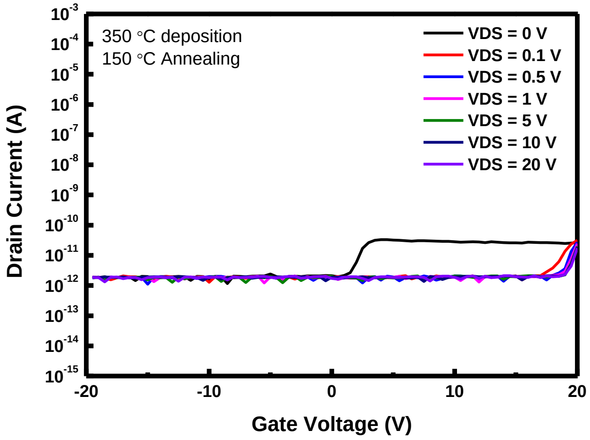






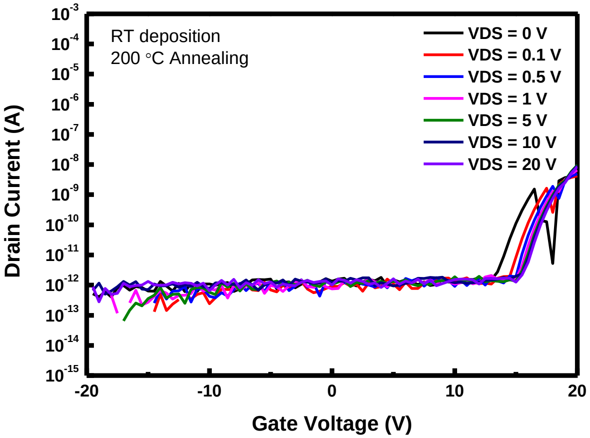


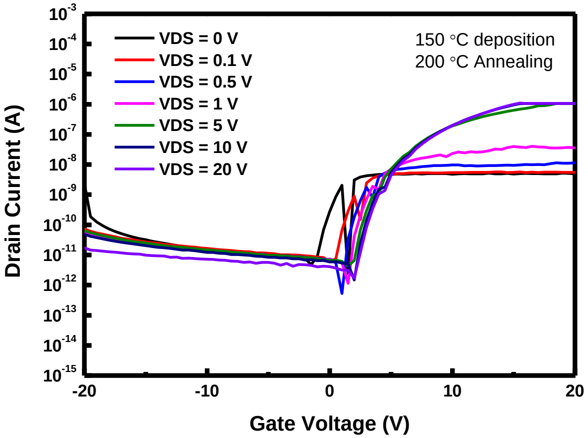


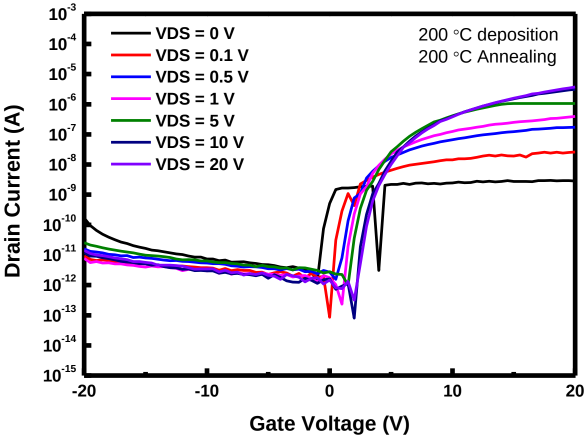


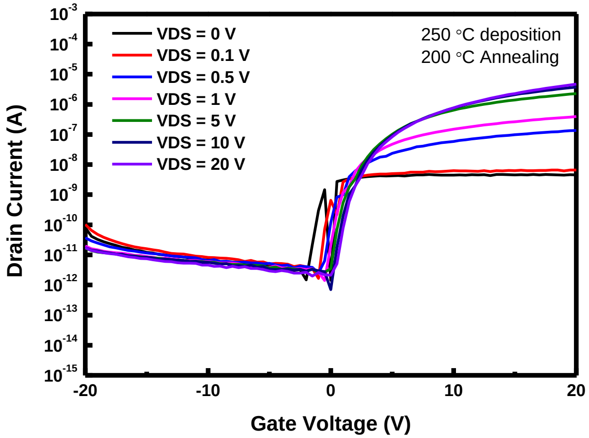
개인연구

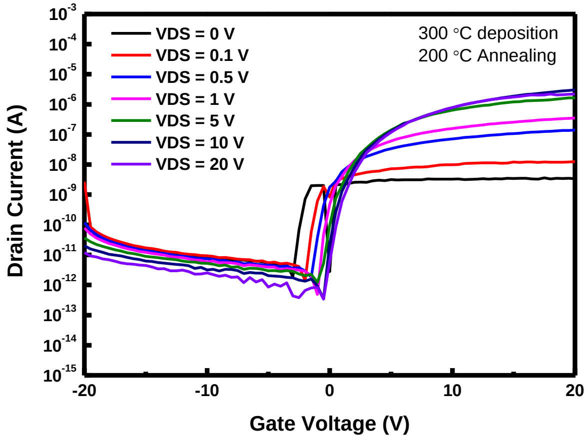
IGZO 증착온도별, 열처리 온도별 특성 정리 (200 ˚C annealing)

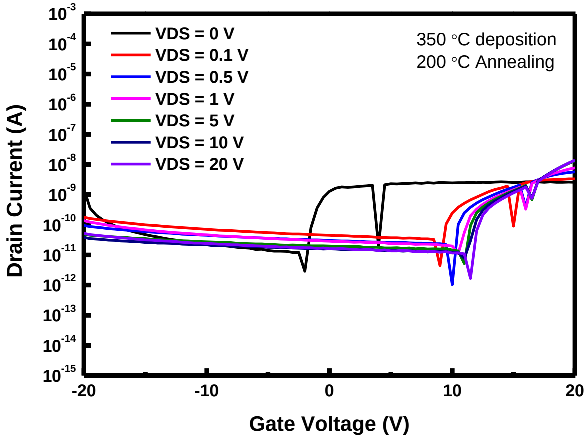






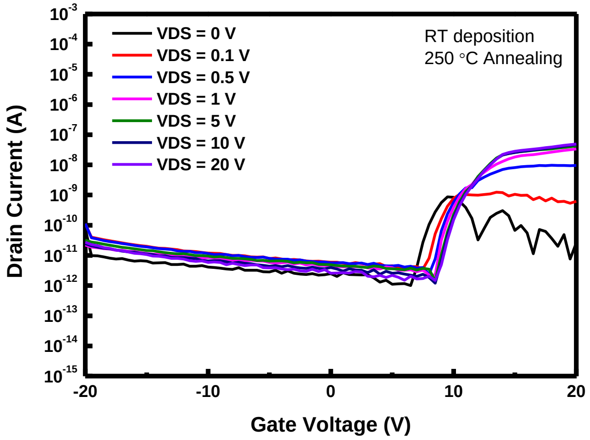


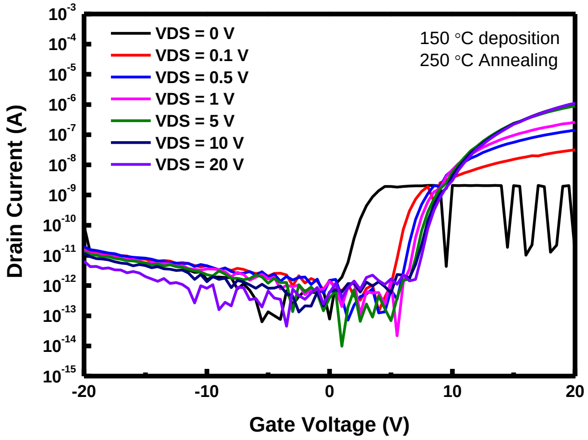


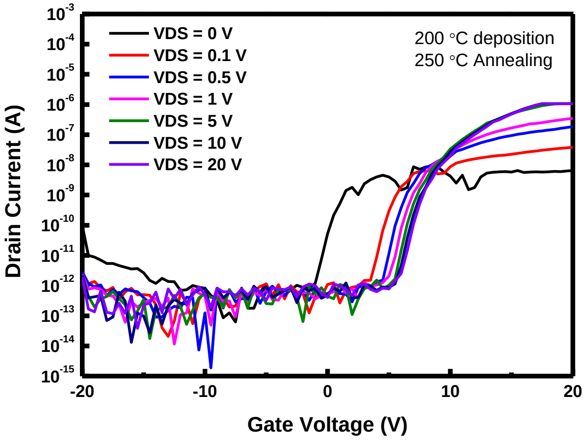


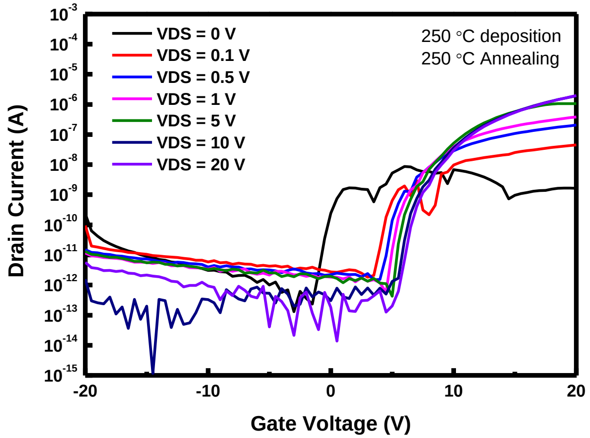
개인연구

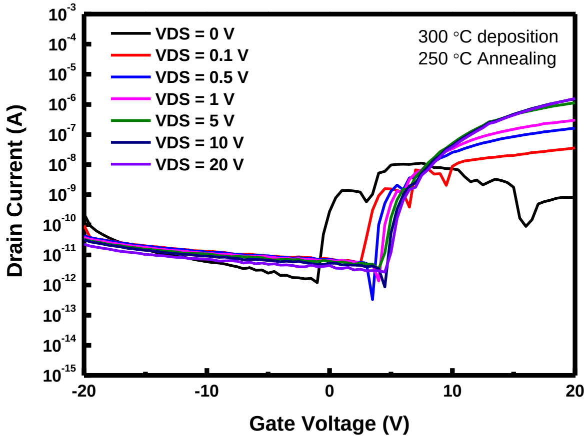
IGZO 증착온도별, 열처리 온도별 특성 정리 (250 ˚C annealing)

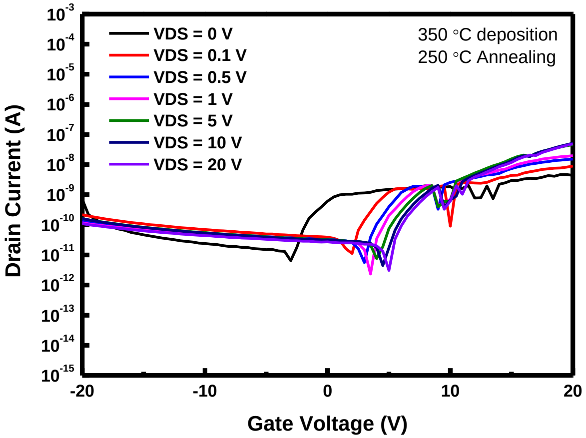






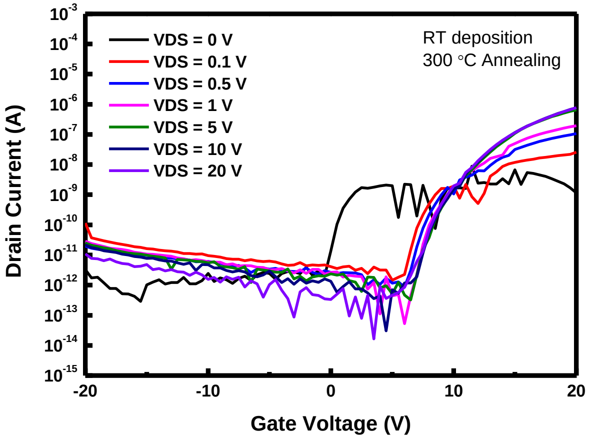


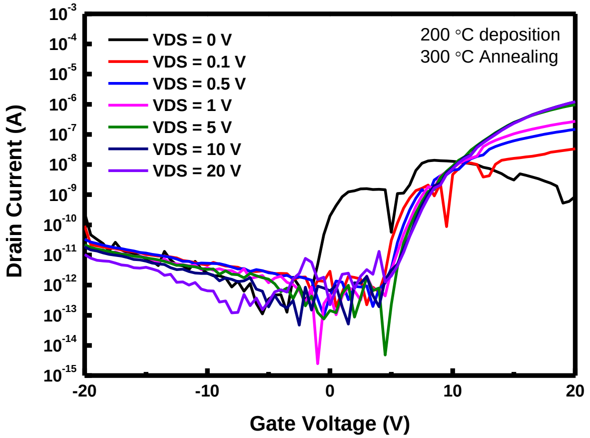


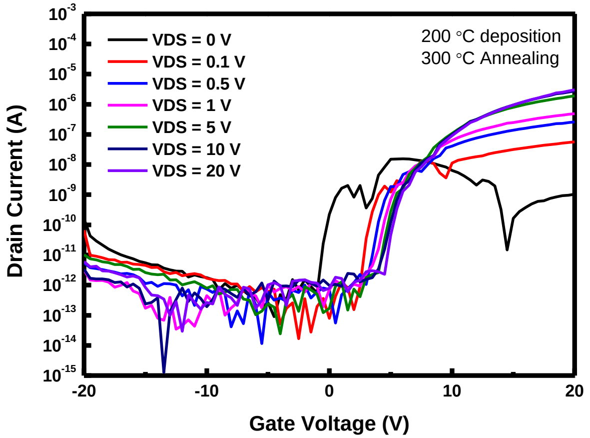


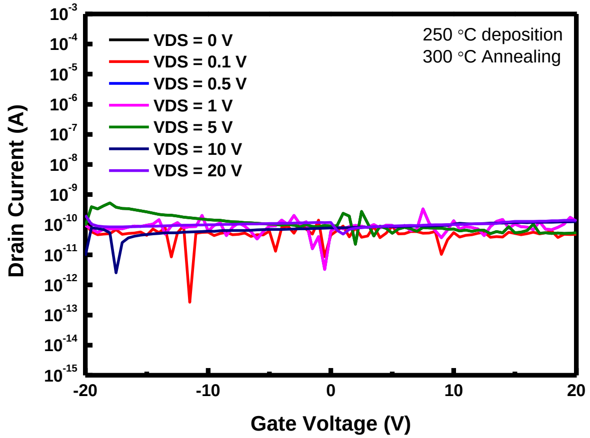
개인연구

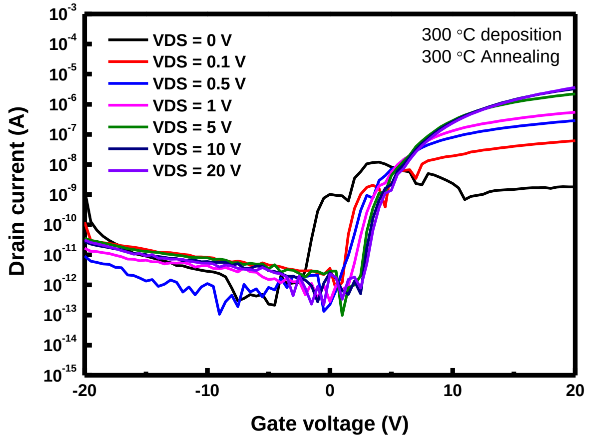
IGZO 증착온도별, 열처리 온도별 특성 정리 (300 ˚C annealing)

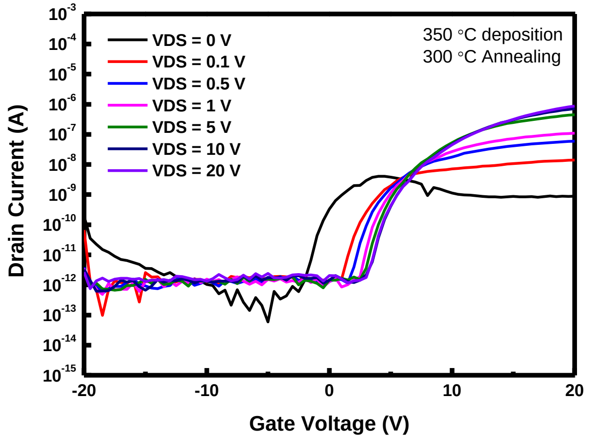






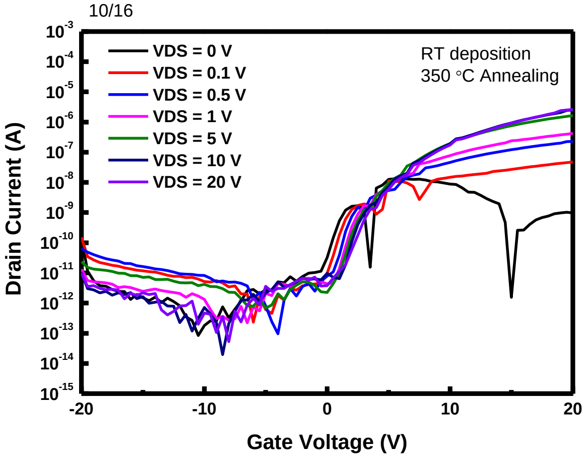


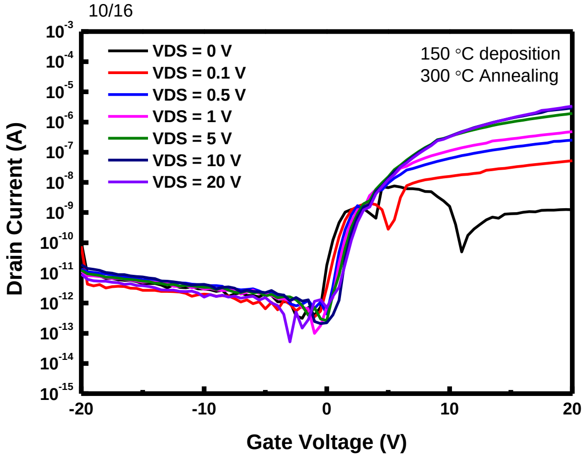


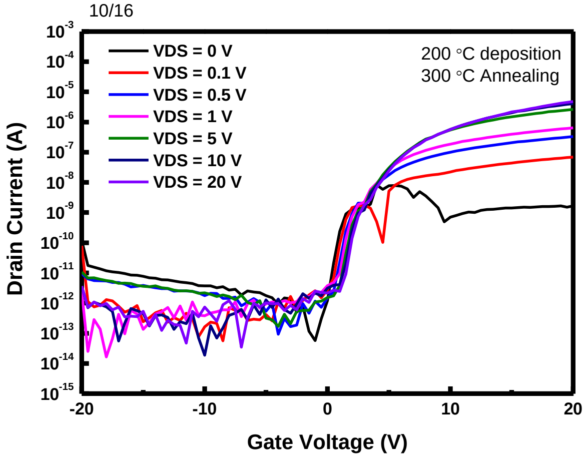


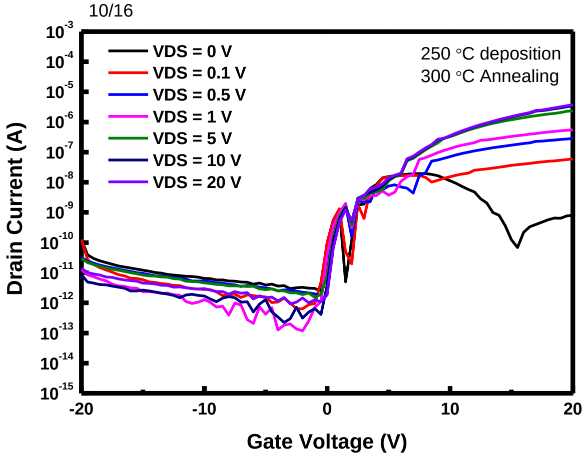
개인연구

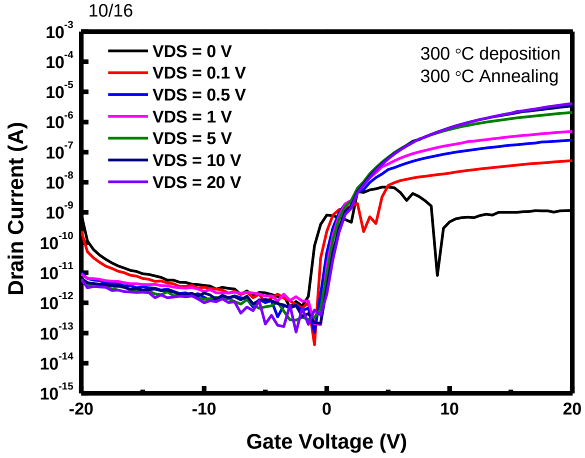
IGZO 증착온도별, 열처리 온도별 특성 정리 (350 ˚C annealing)

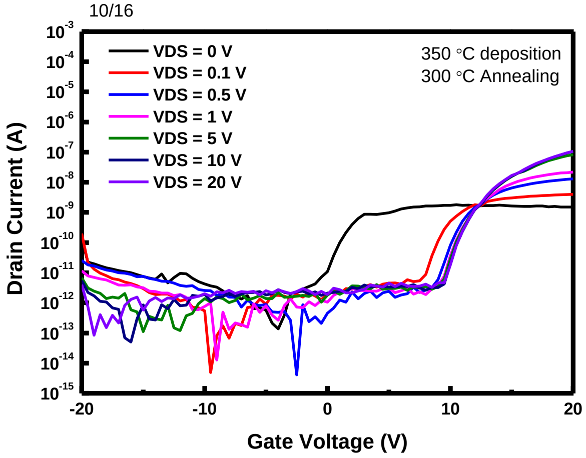








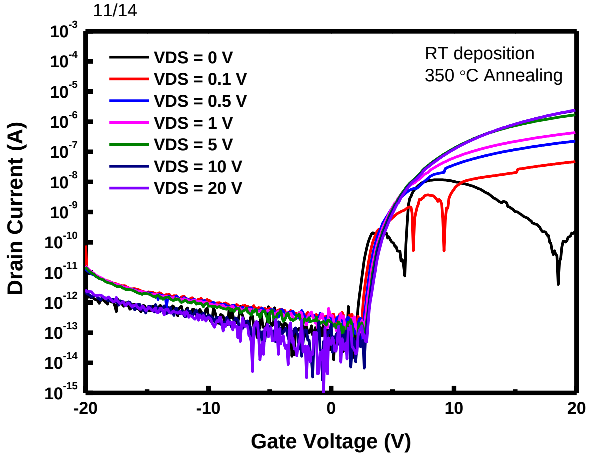


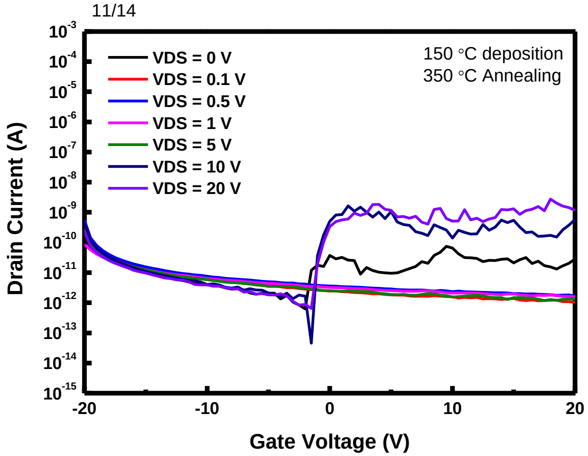


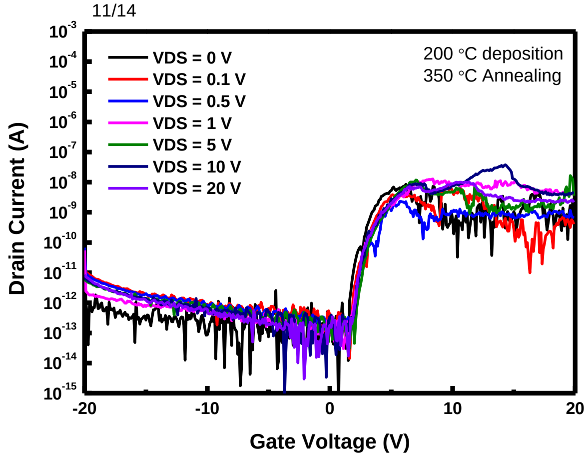
개인연구

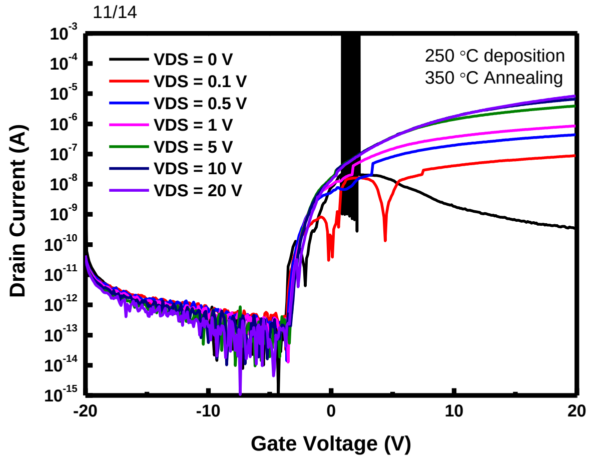
IGZO 증착온도별, 열처리 온도별 특성 정리

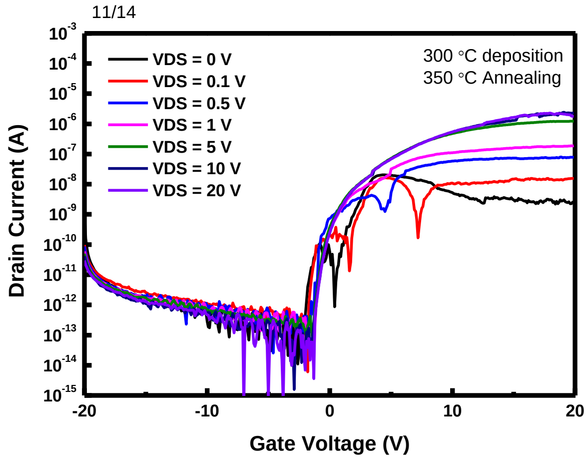
11/14 기존 샘플 재측정 (Before annealing)

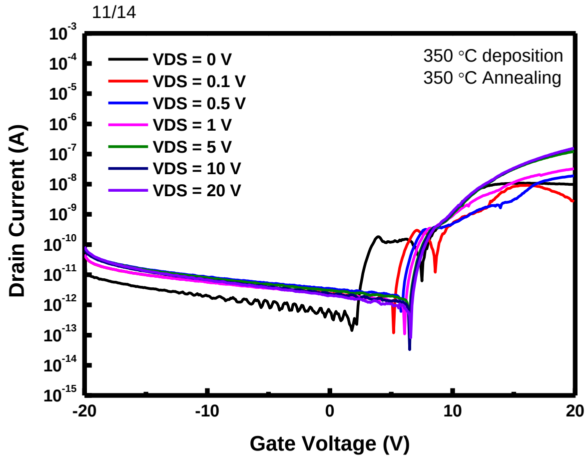












개인연구

IGZO 증착온도별, 열처리 온도별 특성 정리 (400 ˚C annealing)

11/14 기존 샘플 재측정 (After annealing)