High-mobility Atomically Ordered IGZO Transistors Deposited by Thermal Atomic-Layer-Deposition

Min-Seo Kim[a], Seong-Hwan Ryu[b], Yoon-Seo Kim[c*], and Jin-Seong Park[a,b*]

[a]Department of Display Science and Engineering, Hanyang University, 222 Wangsimni-ro, Seongdong-gu, Seoul, 04763, Republic of Korea

[b]Division of Materials Science and Engineering, Hanyang University, 222 Wangsimni-ro, Seongdong-gu, Seoul 04763, Republic of Korea

[c]Imec, Kapeldreef 75, 3001 Leuven, Belgium

(*corresponding author: yoon-seo.kim@imec.be; jsparklime@hanyang.ac.kr)

AA6: 3D Semiconductor Devices

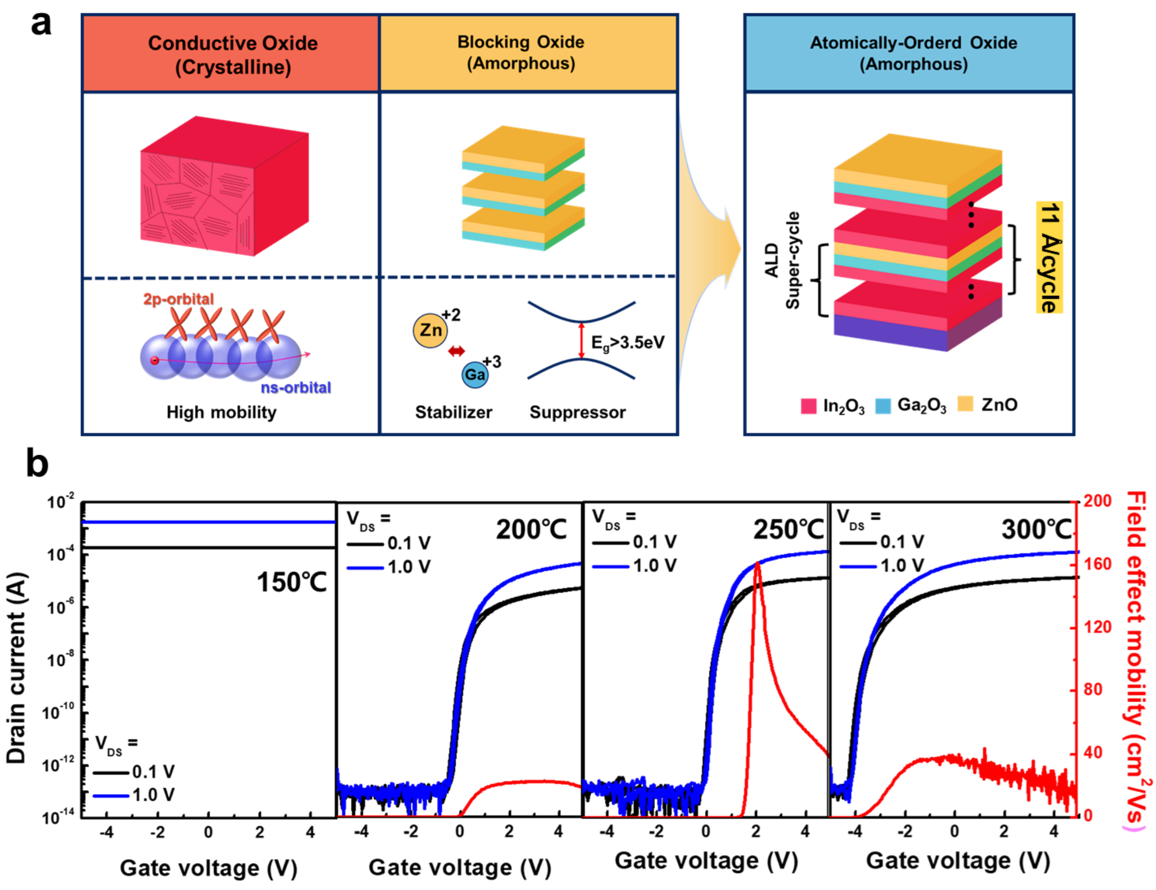

Fig. 1.(a) Schematic of Atomically Ordered IGZO Thin film with ALD super-cycle control (b) TFT properties of IGZO FETs annealed at 300 °C, fabricated with growth temperatures of 150, 200, 250 and 300 °C