

Supporting Information

Enhanced Electrical Properties and Stability of Solution Processed IYZO Thin Film Transistor by Controlling of Deep Level Oxygen Vacancies.

*Bu Kyeong Hwang^{1,2}, Hyeon Woo Kim^{1,3}, Bo Ram Lee^{1,2}, Eun Jin Park¹, Hyunsung Jung¹, Min-Kyu Son¹, Sung Beom Cho^{4,5}, Hyeon Jin Jung^{1,***}, Moonsuk Yi^{2**}, and Soo Won Heo^{1,*}*

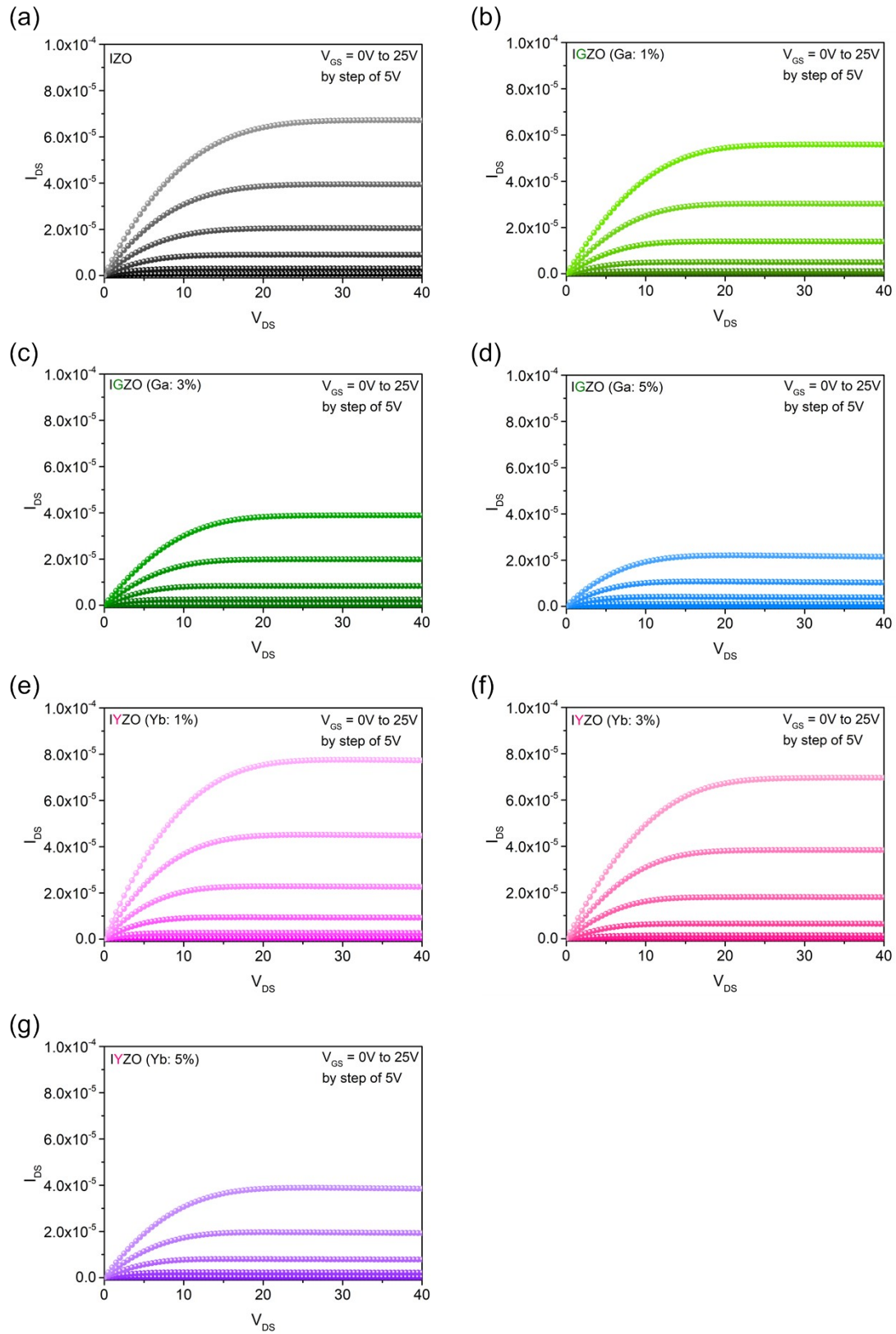


Figure S1. Output characteristics of the (a) IZO TFT, IGZO TFTs with (b) Ga: 1%, (c) Ga: 3%, (d) Ga: 5%, IYZO TFTs with (e) Yb: 1%, (f) Yb: 3%, and (g) Yb: 5%, respectively.

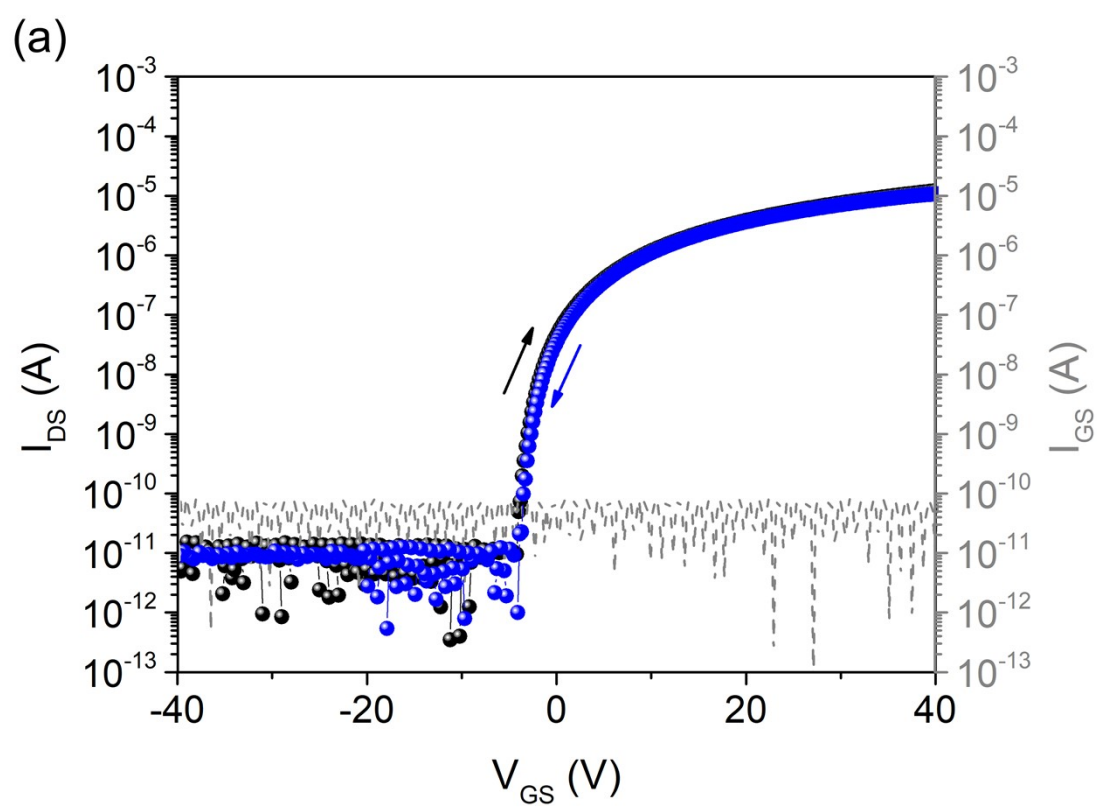


Figure S2. Full characteristics (trace, retrace) of the IYZO TFT.

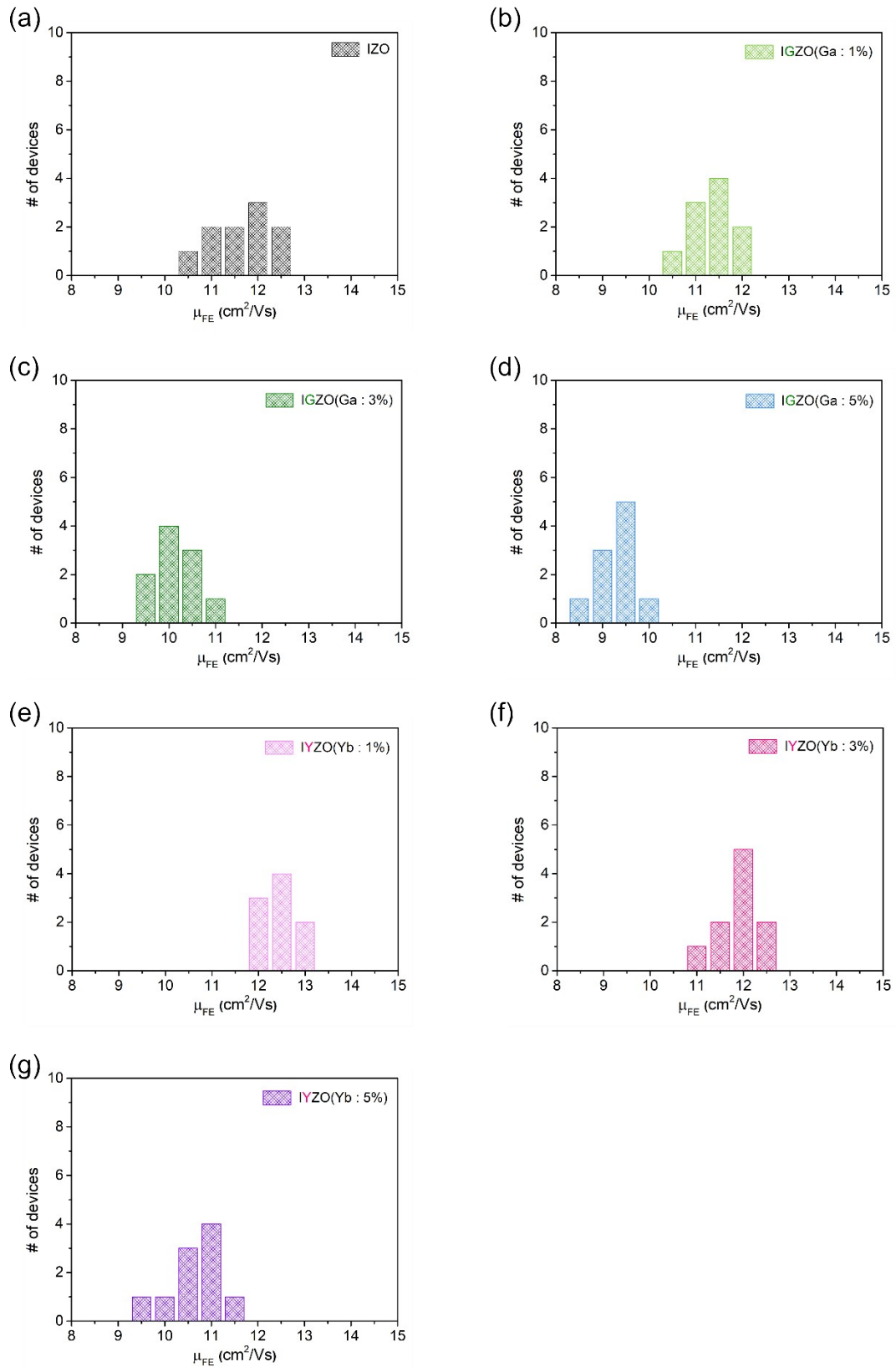


Figure S3. Mobility distributions of the (a) IZO TFT, IGZO TFTs with (b) Ga: 1%, (c) Ga: 3%, (d) Ga: 5%, IYZO TFTs with (e) Yb: 1%, (f) Yb: 3%, and (g) Yb: 5%, respectively.

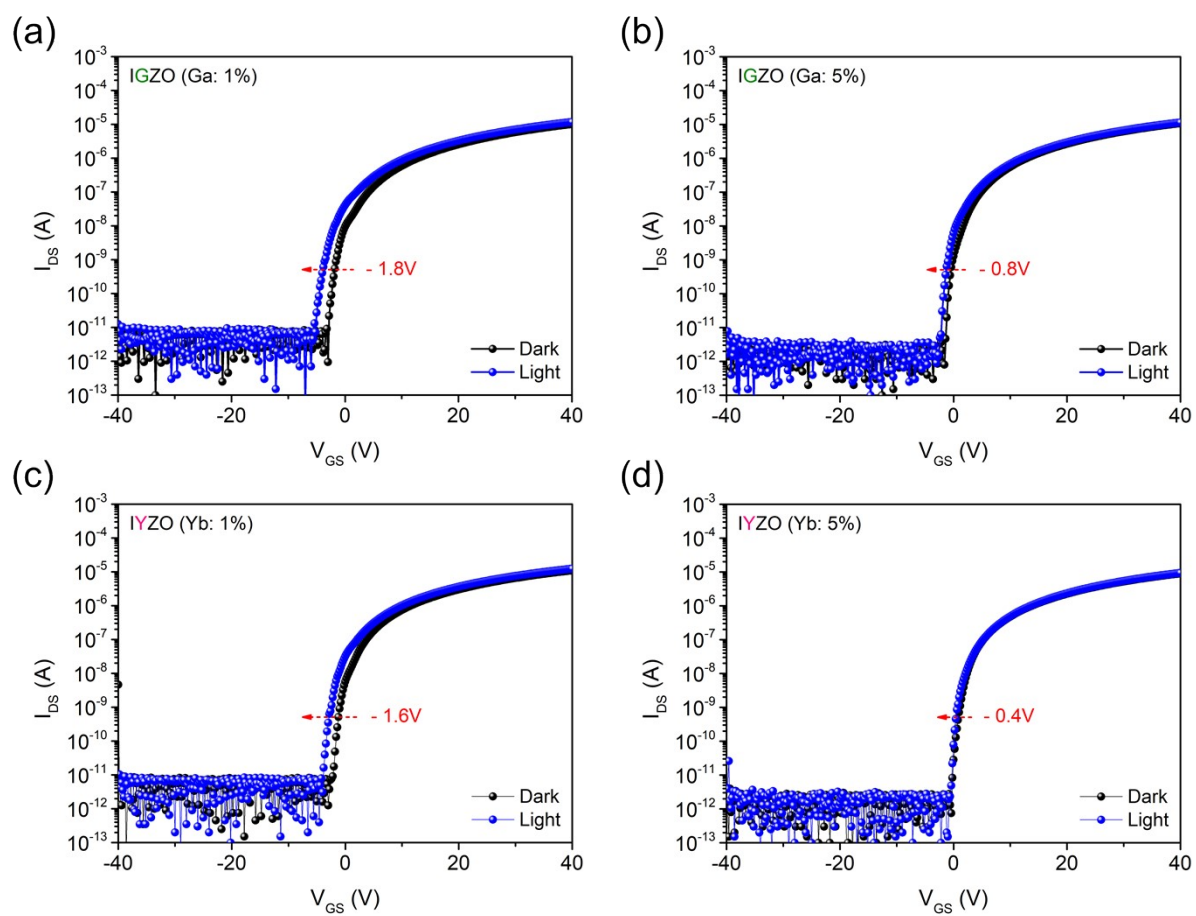


Figure S4. Photo-response of the IGZO TFTs with (a) Ga: 1%, (b) Ga: 5%, IYZO TFTs with (c) Yb: 1%, and (d) Yb: 5%, respectively.

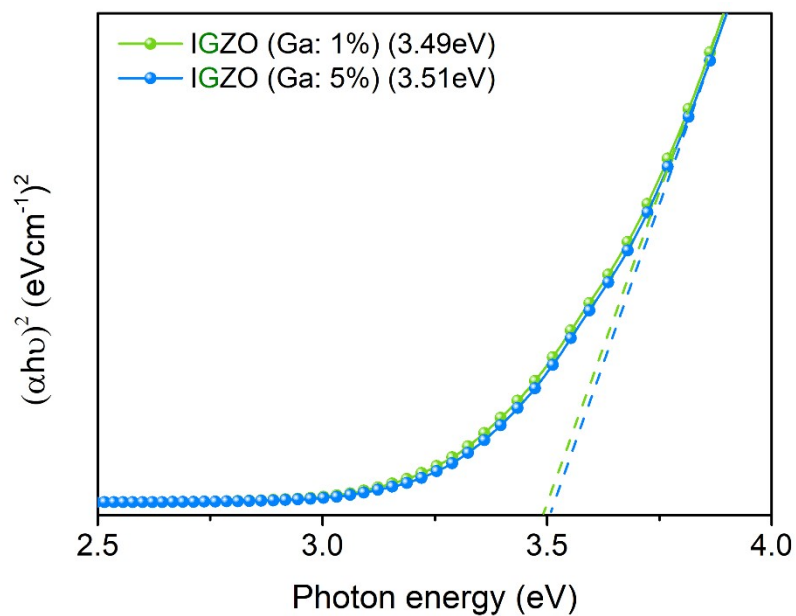


Figure S5. Optical band gap of the IGZO TFTs with Ga: 1%, 5%.

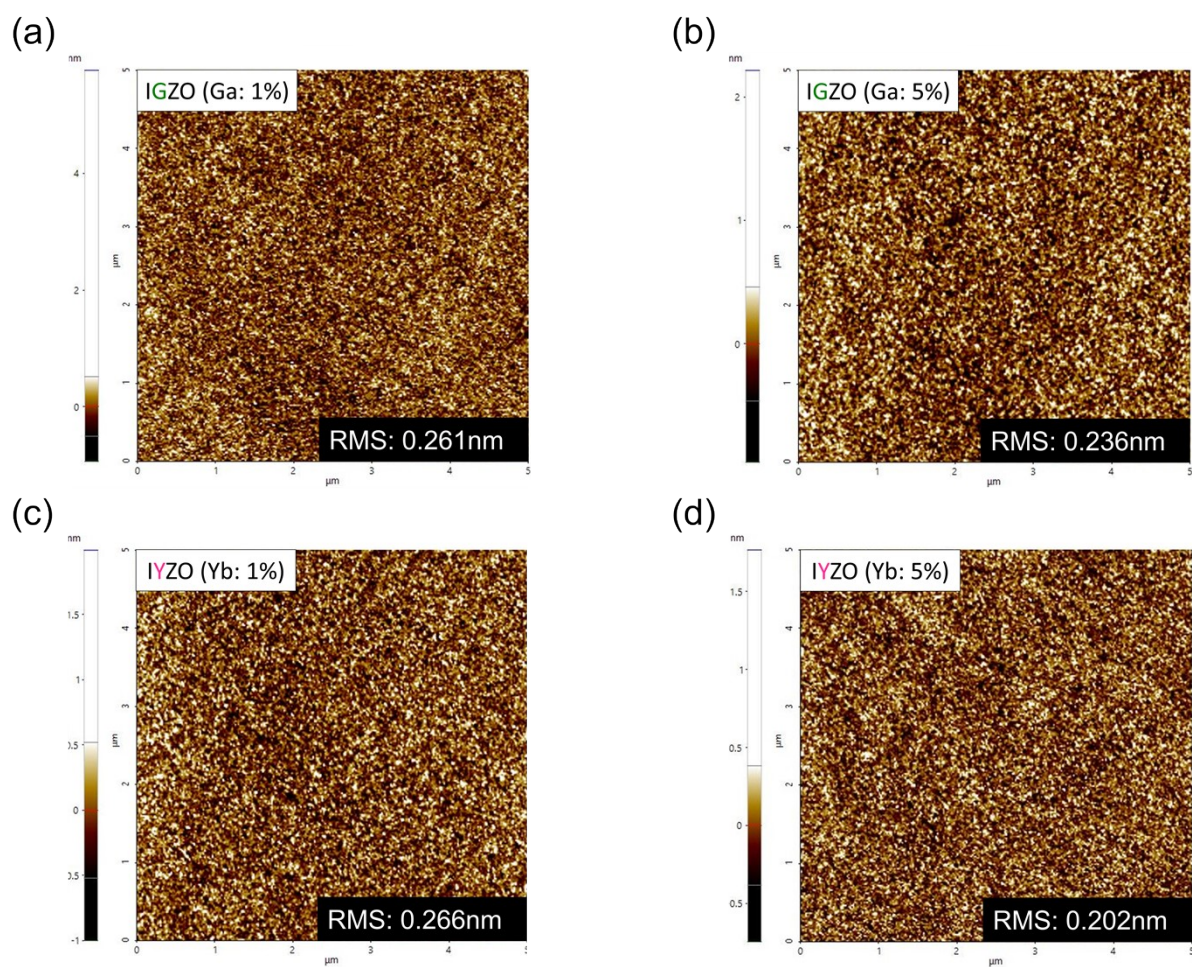


Figure S6. AFM images of (a) IGZO (Ga: 1%) film, (b) IGZO (Ga: 5%), (c) IYZO (Yb: 1%), and (d) IYZO (Yb: 5%) film, respectively.