Supplementary Materials: Amorphous InGaZnO Thin Film Transistor Fabricated with Printed Silver Salt Ink Source/Drain Electrodes

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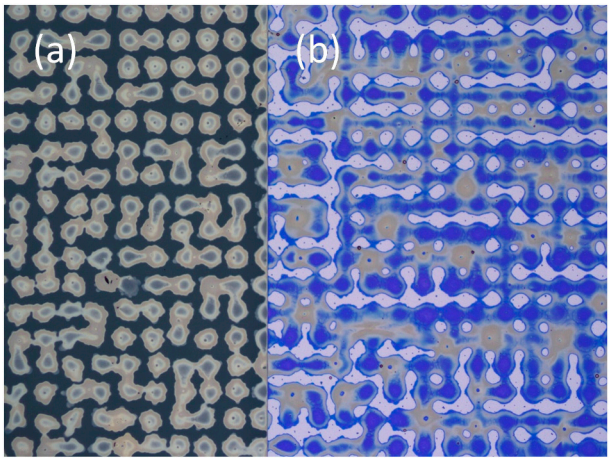

Figure S1. Images of the inkjet printing silver ink on (**a**) the glass and (**b**) the Al_2O_3.

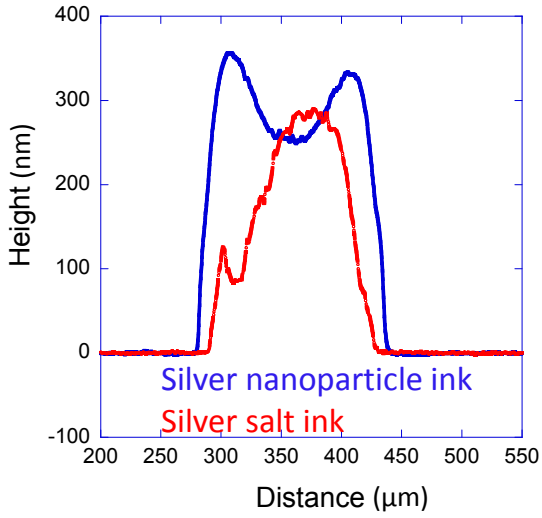

Figure S2. The thickness of the Ag electrodes by using two types of silver ink.

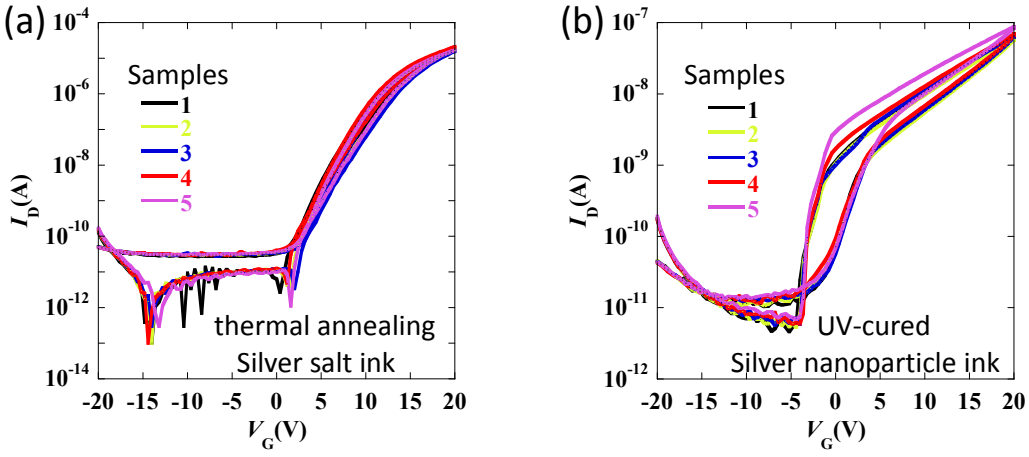

Figure S3. Transfer characteristics curves (ID-VG) for devices by using (**a**) silver salt ink and (**b**) silver nanoparticle ink.

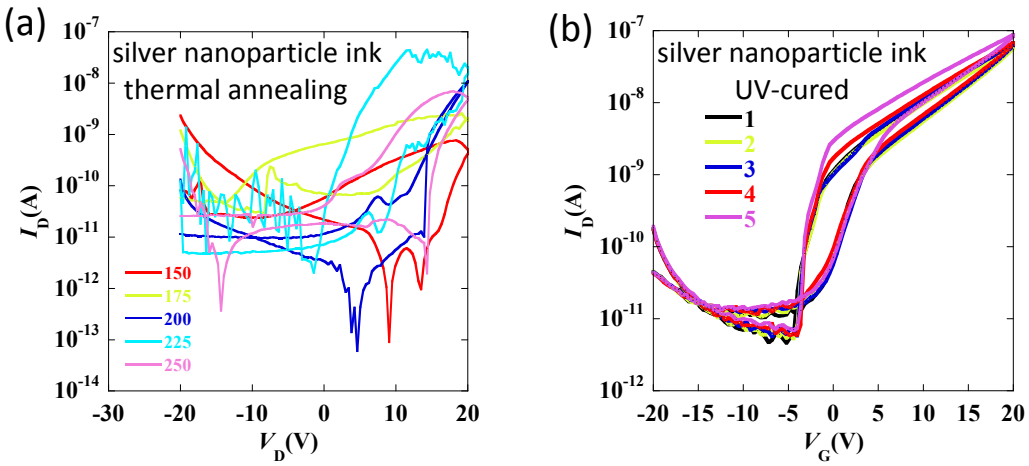

Figure S4. Transfer characteristics curves (ID-VG) for devices by using silver nanoparticle ink under (**a**) thermal annealing and (**b**) UV-curing.

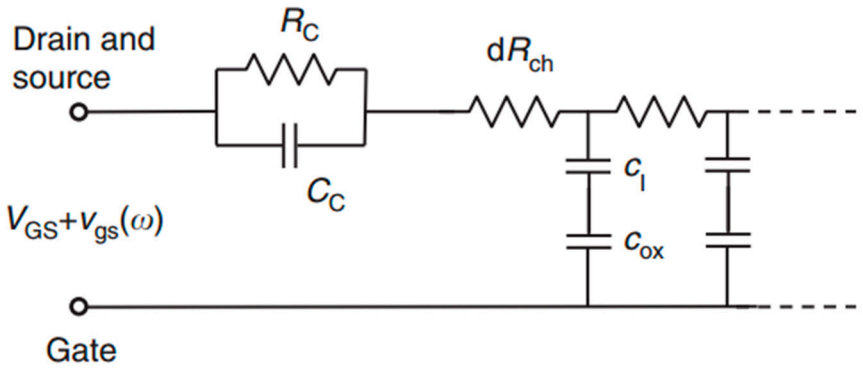

Figure S5. Schematic diagram of circuit for thin film transistor.

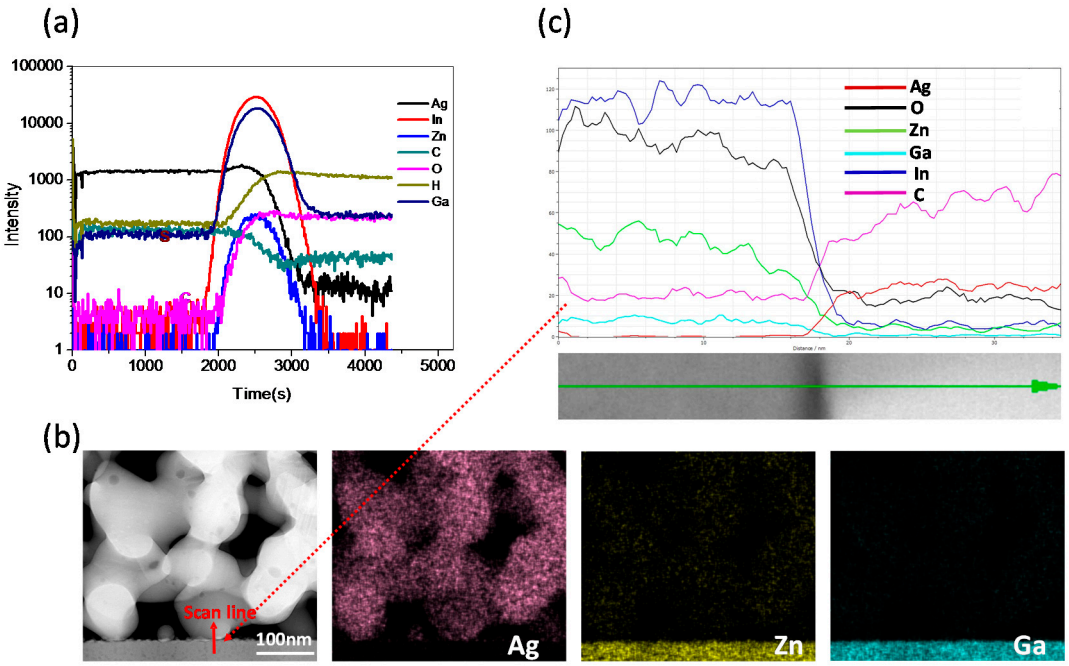

Figure S6. The depth profile of the devices by using (**a**) silver nanoparticle ink; (**b**) EDS mapping; and (**c**) line scanning of the Ag/a-IGZO interface.

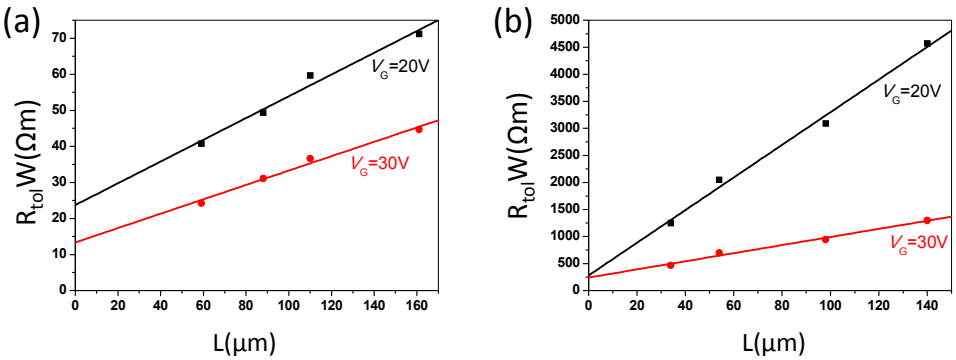

Figure S7. The contact resistance of devices with (**a**) silver salt ink and (**b**) silver nanoparticle ink.

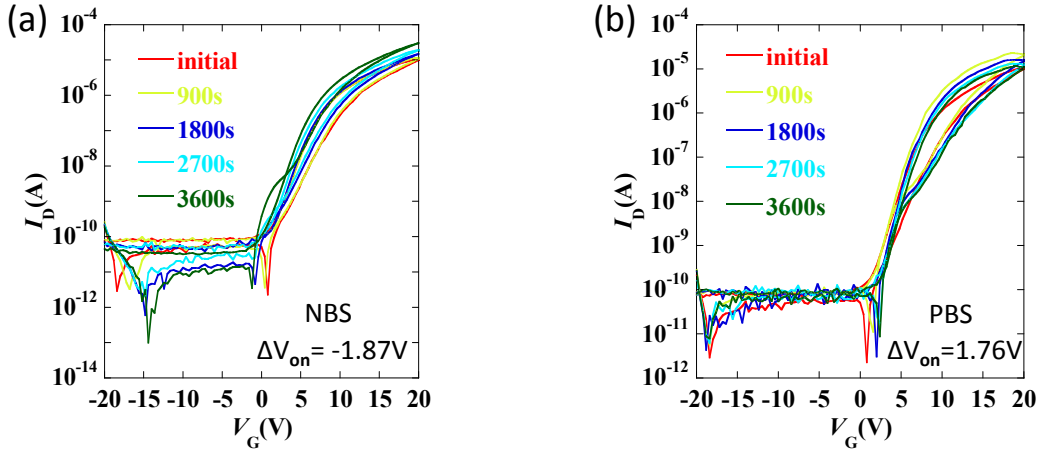

Figure S8. The variations of time-dependent transfer property under (**a**) positive gate-bias-stress (V_G= 10 V) and (**b**) negative gate-bias stress (V_G = −10 V).

IGZO	1#	
	Mobility	Density
位置 1	8.34	2.93E+15
2	9.98	1.50E+15
3	8.28	3.68E+15
4	8.56	3.70E+15
5	10.03	1.47E+15
400℃ annealing	11.54	3.19E+16

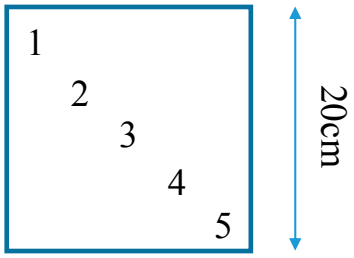

Figure S9. The mobility and the density of the a-IGZO by the Hall measurements

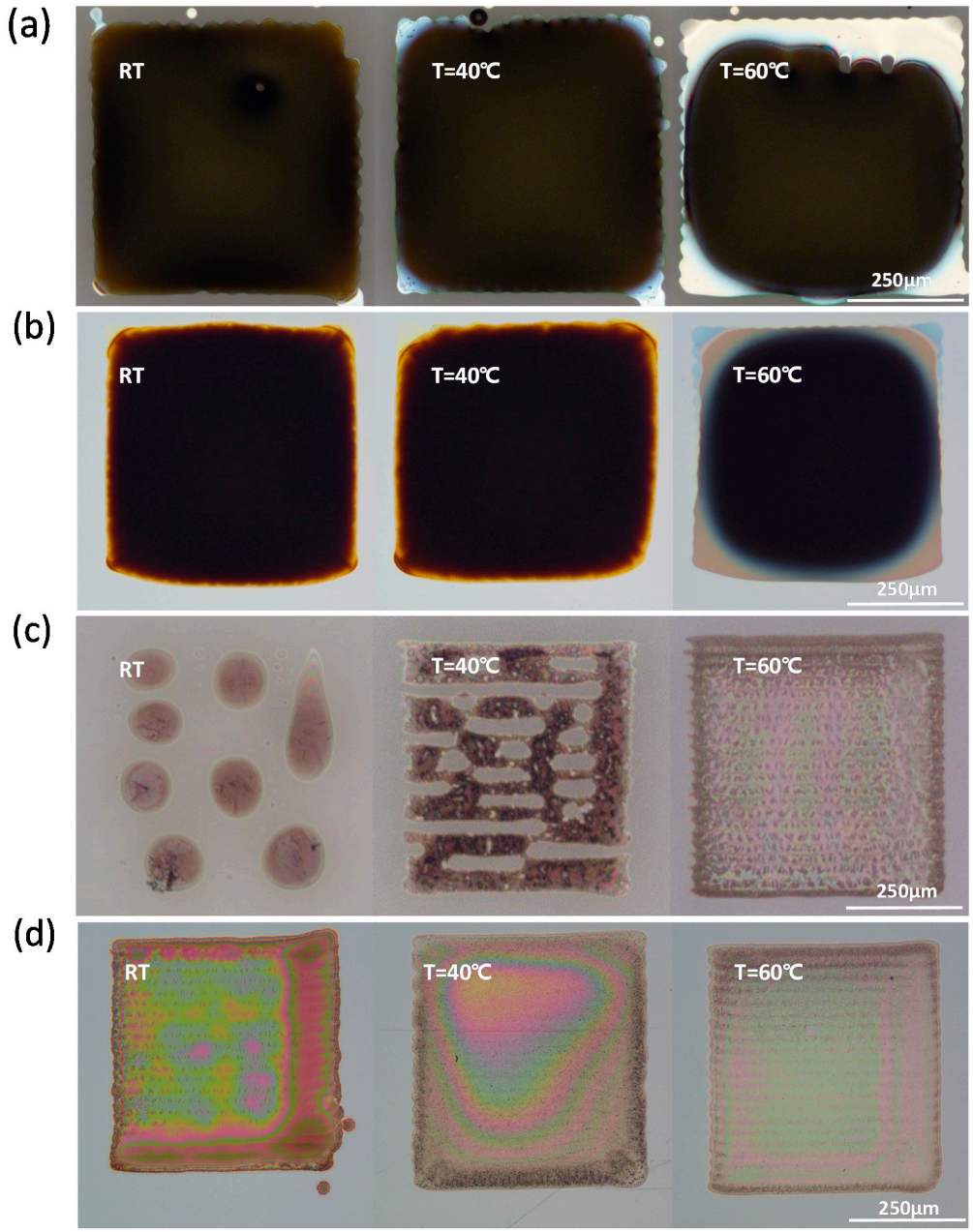

Figure S10. Inkjet printing silver nanoparticle ink film on (**a**) glass and (**b**) a-IGZO/Al_2O_3 with substrate temperature of RT, 40℃ and 60℃, respectively; Inkjet printing silver salt ink film on (**c**) glass and (**d**) a-IGZO/Al_2O_3 with substrate temperature of RT, 40℃ and 60℃, respectively.

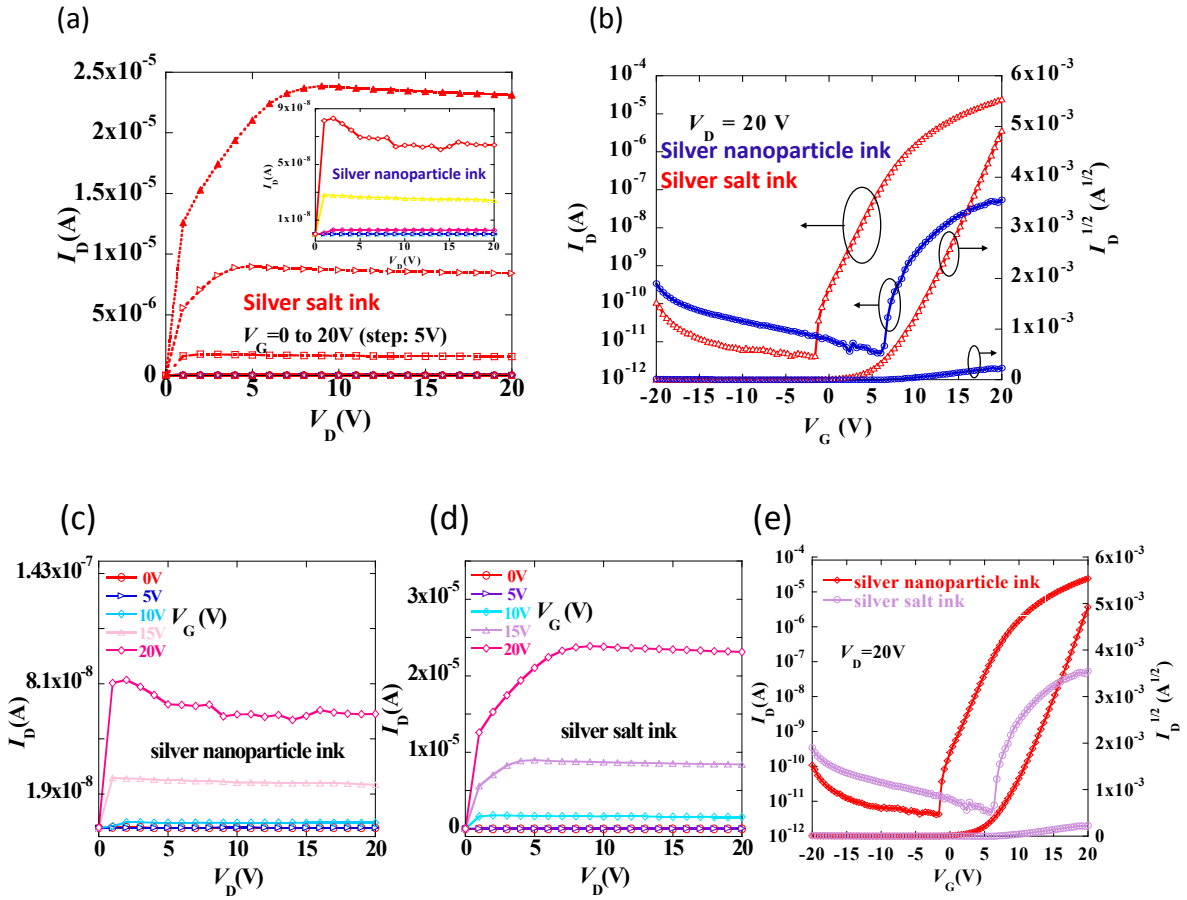

Figure S11. The output characteristic curves (I_D-V_D) and transfer characteristic curves (I_D-V_G) of the devices express through different greyscale.