Electronic Supplementary Information for

Metal Salt-Derived In-Ga-Zn-O Semiconductors Incorporating Formamide as Novel Co-solvent for Producing Solution-Processed, Electrohydrodynamic-Jet Printed, High Performance Oxide Transistors

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Fig. S1. TGA curves for precursors (In nitrate, Ga nitrate, and Zn acetate) used for synthesizing the IGZO solution.
**Fig. S2.** The transfer characteristic for TFTs employing the IGZO channel layers prepared from as-synthesized and 2-months lasting precursor solution. Both precursor solutions included the FA of 50 vol%. The mobility and threshold voltage of IGZO TFT with channel layer prepared from 2-months lasting precursor solution were 9.9 cm²/V·s and -8.9 V, respectively.

**Fig. S3.** (a) Temperature-dependent TGA curve and (b) time-dependent, isothermal TGA curve at 400 °C for 50 vol% FA-added IGZO precursor solution. The heating rate was 5 °C/min.
Fig. S4. Atomic force microscopy images for IGZO semiconductors derived from precursor solutions containing the different amount of FA between 0 and 100 vol%. The numbers indicate the value of r.m.s. roughness.

Fig. S5. X-ray diffraction results for IGZO semiconductors derived from precursor solutions containing the different amount of FA between 0 and 100 vol%.
Fig. S6. Transfer and output characteristic for TFT employing e-jet printed IGZO channel layer, with a different channel geometry, that was formed by overlapping the lines. Inset is the optical microscopy image for a channel region. The 50 vol% FA-added IGZO precursor solution was used for e-jet printing.

Fig. S7. The hysteresis behaviors for TFTs with (a) IGZO/SiO₂ and (b) IGZO/ZAO semiconductor/dielectric stack. The 50 vol% FA-added IGZO precursor solution was spin-coated as a channel layer.