Triggering DRAM/SRAM memory behaviors by single atom substitution to alter molecular planarity

Haiyan Hu, Jinghui He, Hao Zhuang, Erbo Shi, Hua Li*, Najun Li, Dongyun Chen, Qingfeng Xu, Jianmei Lu*, Lihua Wang

Fig. S1 TGA plots of ID(BT)2 and ID(BF)2, with a heating rate of 10 °C/min. (a) ID(BT)2; (b) ID(BF)2.

Fig. S2 The UV-vis spectra of ID(BT)2 and ID(BF)2 in THF solution.

Fig. S3 Tapping-mode (5 μm×5 μm) AFM topography of ID(BT)2 and ID(BF)2 films on ITO substrates, respectively. (a) ID(BT)2; (b) ID(BF)2.
Fig. S4 Typical Current-Voltage (I-V) characteristics of the ITO/ID(BT)2/LiF/Al ID(BT) memory device (a), and ITO/ ID(BF)2/LiF/Al memory device (b).

Fig. S5 The I-V characterized of ID(BT)2 and ID(BF)2 based memory devices were repeatedly measured. (a) ID(BT), (b) ID(BF)2.
Compound 3a

Compound 3b