

Supporting Information

Benzothiazole derivatives containing different electron acceptors exhibiting totally different data-storage performances

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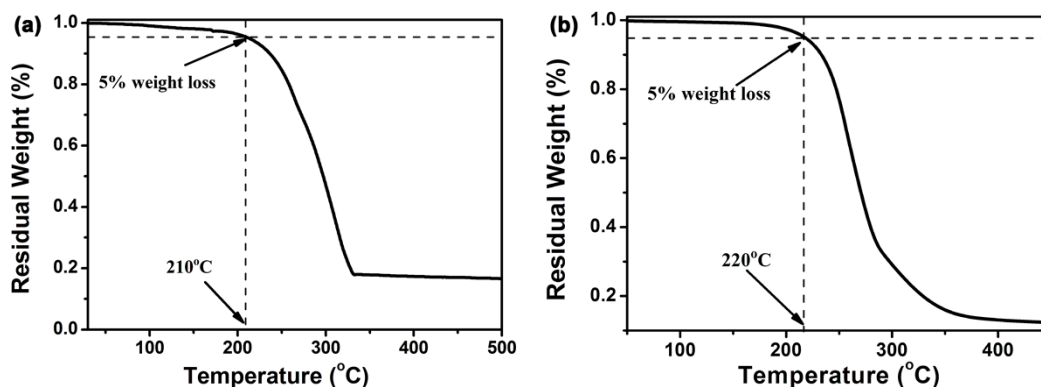


Fig. S1 TGA curve of BTVCz (a) and BTVCz-NO₂ (b) measured in nitrogen atmosphere at a heating rate of 10 °C/min

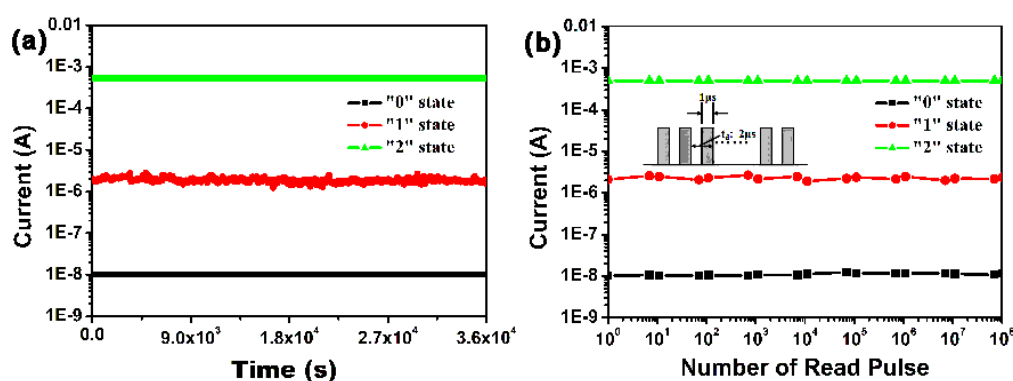


Fig. S2 (a) Stability of the device made from BTVCz-NO₂ films in three states under a constant “read” voltage of -1 V; (b) Effect of read cycles on three states under a stress of voltage of -1 V. The inset shows the pulse shapes in the measurement.

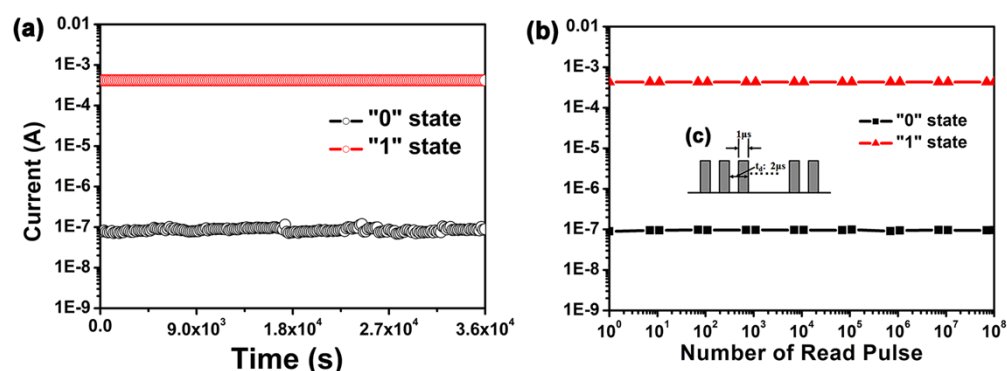


Fig. S3 (a) Stability of the device made from BTVCz films in three states under a constant “read” voltage of -1 V; (b) Effect of read cycles on three states under a stress of voltage of -1 V. The inset shows the pulse shapes in the measurement.

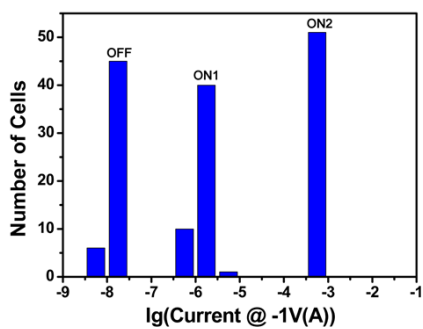


Fig. S4 Retention characteristics of molecule BTVCz-NO₂.

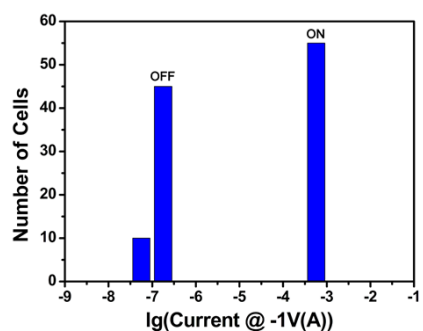


Fig. S5 Retention characteristics of molecule BTVCz.

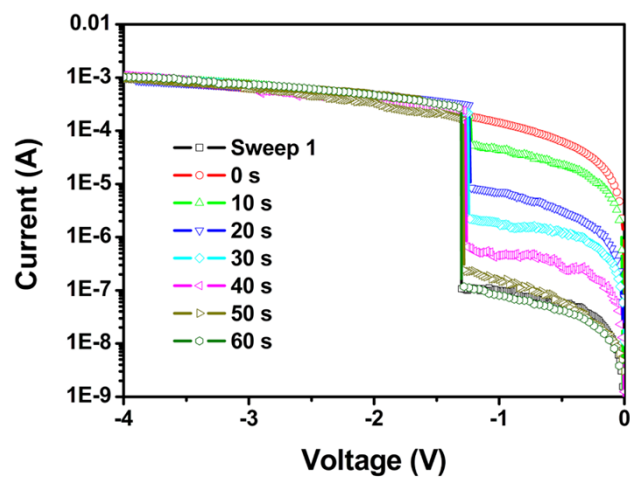


Fig. S6 I-V curves of BTVCz device at intervals of 0, 10, 20, 30, 40, 50 and 60 s.

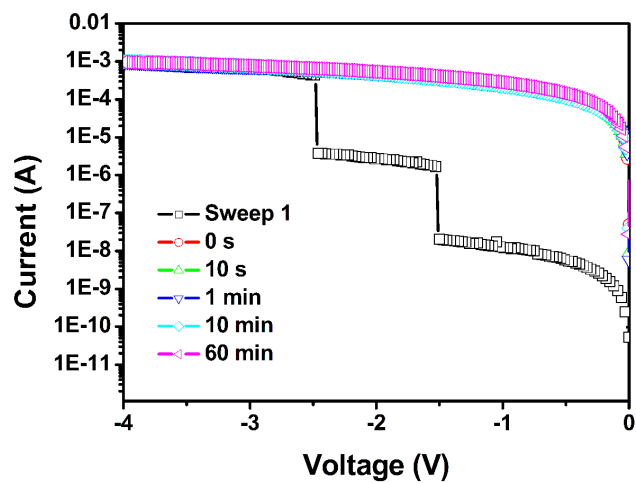


Fig. S7 I-V curves of BTVCz-NO₂ device at intervals of 0s, 10s, 1min, 10 min and 60

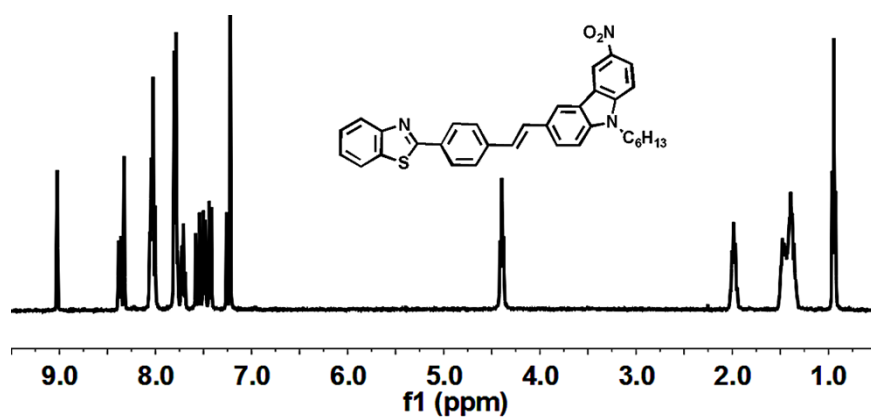
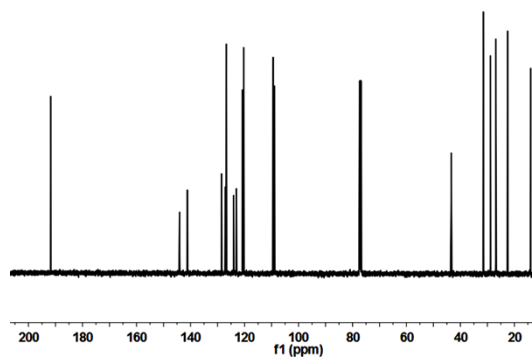
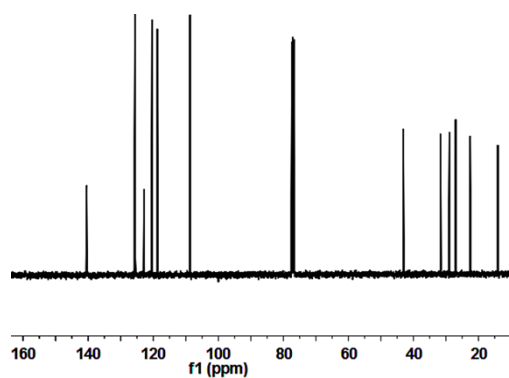
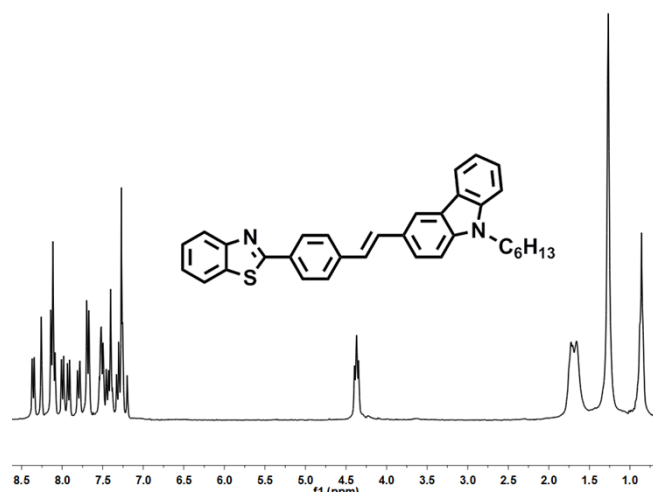


Fig. S8 ¹H NMR of molecule BTVCz-NO₂.



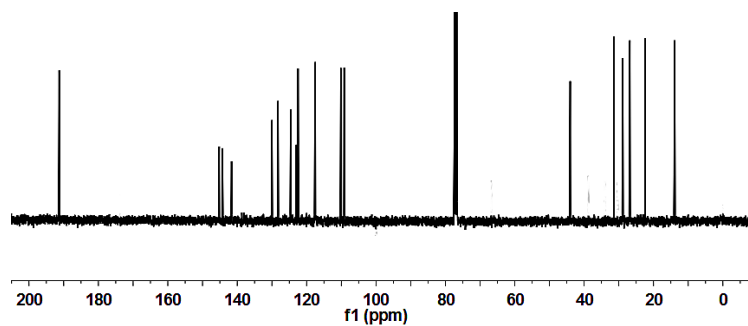


Fig. S12 ^{13}C NMR of molecule 9-hexyl-6-nitro-9H-carbazole-3-carbaldehyde

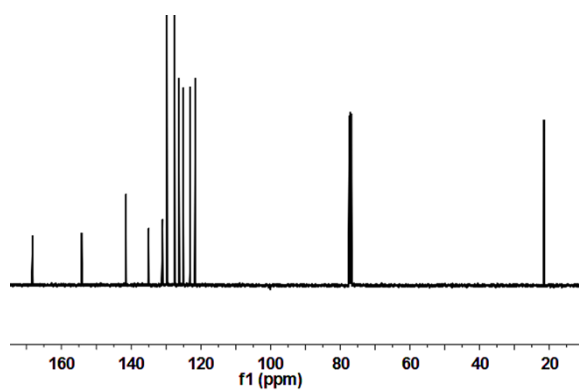


Fig. S13 ^{13}C NMR of molecule 2-p-tolylbenzo[d]thiazole

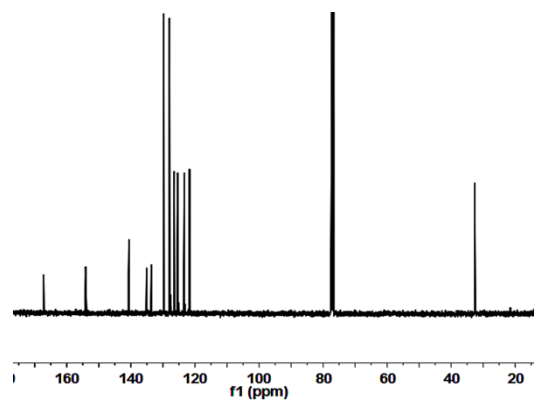


Fig. S14 ^{13}C NMR of molecule 2-(4-(bromomethyl)phenyl)benzo[d]thiazole

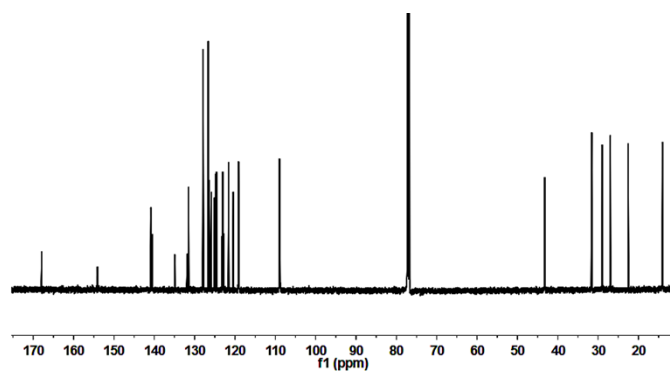


Fig. S15 ^{13}C NMR of molecule BTVCz.

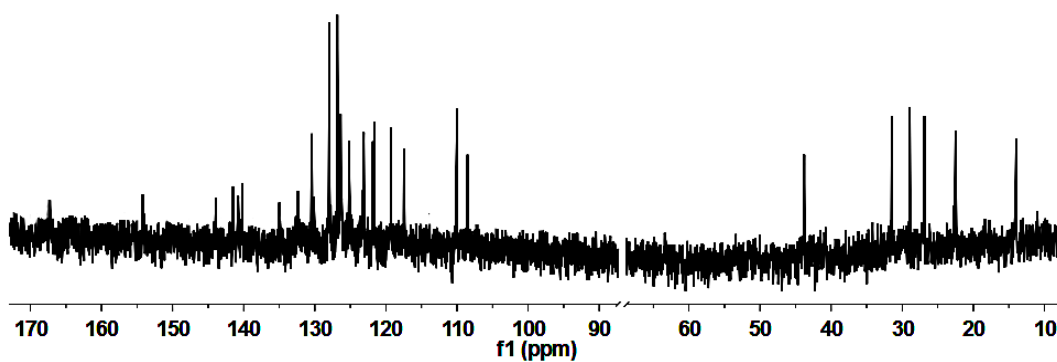


Fig. S16 ^{13}C NMR of molecule BTVCz.

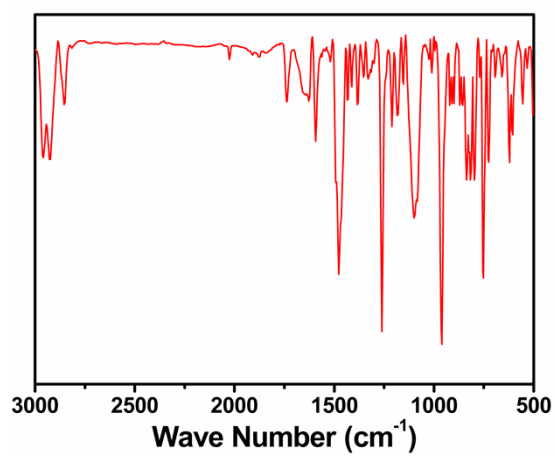


Fig. S17 Infrared spectrum of molecule BTVCz.

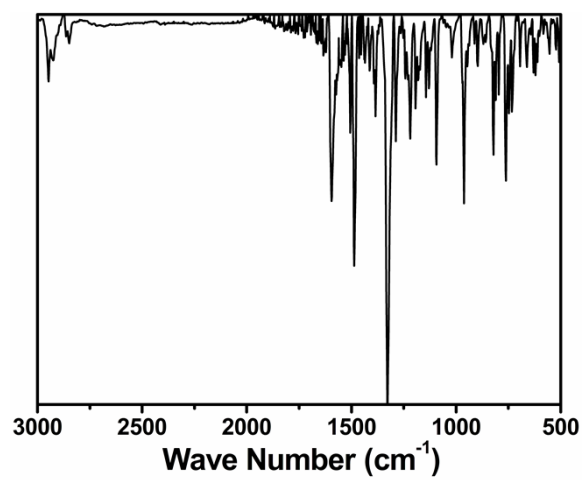


Fig. S18 Infrared spectrum of molecule **BTVCz-NO₂**