Supporting Information

Tristable data-storage device of soluble polyimides based on novel asymmetrical diamines containing carbazole

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Supporting figures:

**Figure S1.** FT-IR spectra of TFDMC.

**Figure S2.** FT-IR spectra of PI-a and PI-b.
Figure S2. FT-IR spectra of PIs.

Figure S3. $^1$H NMR spectrum of (2) in DMSO-$d_6$.

Figure S4. $^{13}$C NMR spectrum of (2) in DMSO-$d_6$. 
**Figure S5.** $^1$H NMR spectrum of BBCDA in DMSO-$d_6$.

**Figure S6.** $^{13}$C NMR spectrum of BBCDA in DMSO-$d_6$.
Figure S7. $^1$H NMR spectra of PI-a and PI-b in DMSO-$d_6$.

Figure S8. DSC curves of PIs.
**Figure S9.** Atomic Force Microscope three-dimensional images (surface area of 0.5×0.5 µm²) of PI-a and PI-b.