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Electrical Conductivity Switching and Memory Effects in Poly(*N*-vinylcarbazole) Derivatives with Pendant Azobenzene Chromophores and Terminal Electron Acceptor Moieties

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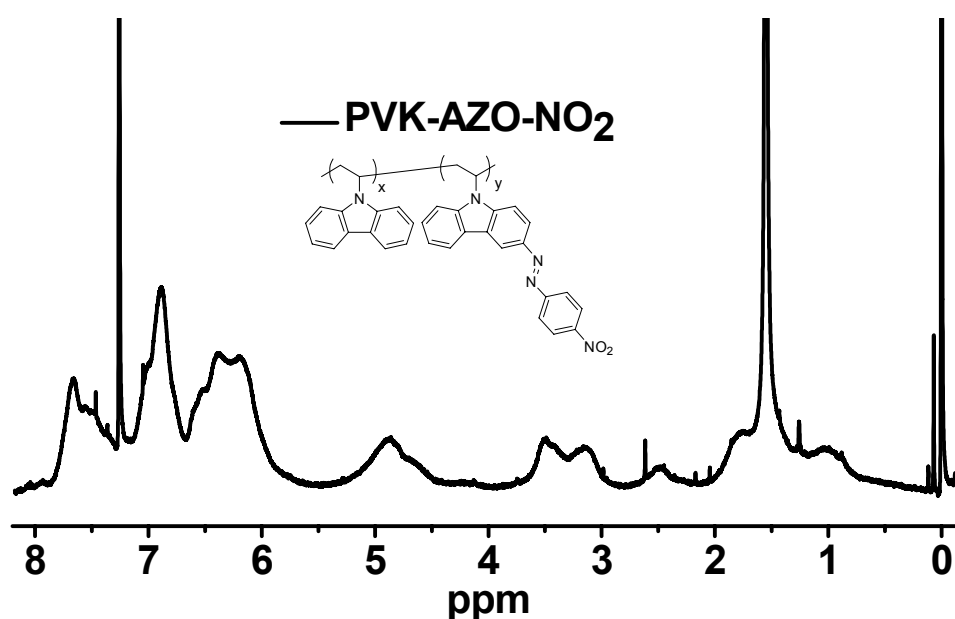


Figure S1. ¹H NMR spectrum of PVK-AZO-NO₂ polymer.

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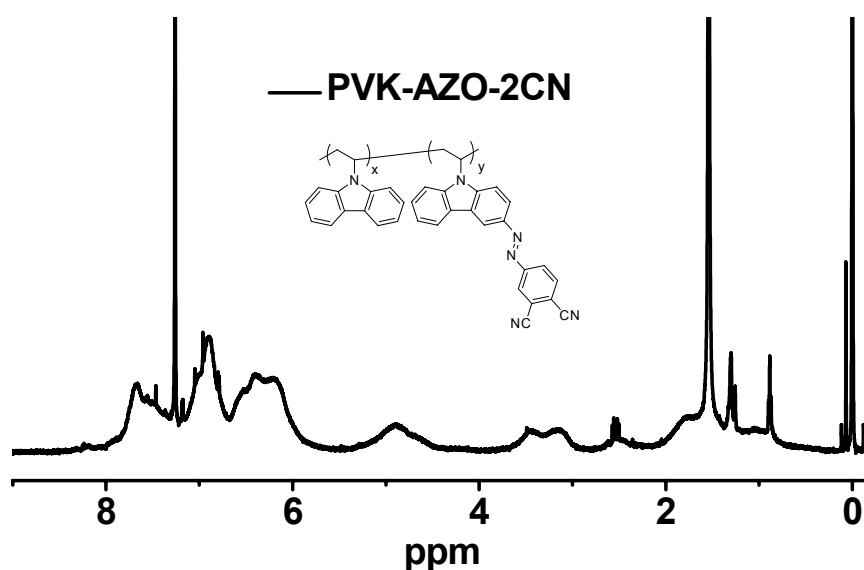


Figure S2. ^1H NMR spectrum of PVK-AZO-2CN polymer.

The ^1H NMR spectra of both PVK-AZO- NO_2 and PVK-AZO-2CN polymers, which are similar to that of the pure PVK polymer, are shown in Figure S1 and S2. The additional proton signals arising from the azobenzene chromophores are overlapped with that of the PVK benzene hydrogen atoms, and are difficult to be distinguished from the above ^1H NMR spectra. However, the successful grafting of the azobenzene-nitro or azobenzene-dicyano moieties onto the pendant carbazole chromophores can be confirmed by the changes of the lineshapes of the FTIR spectra of the polymers, as shown in Figure 2 in the main text.

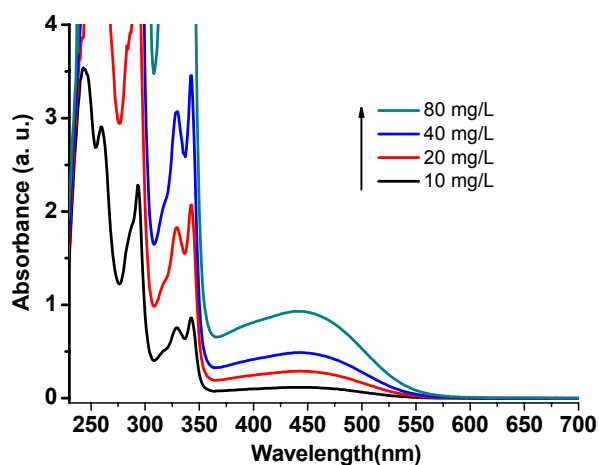


Figure S3. Concentration-dependent UV-visible absorption spectra of PVK-AZO- NO_2 in THF solutions.

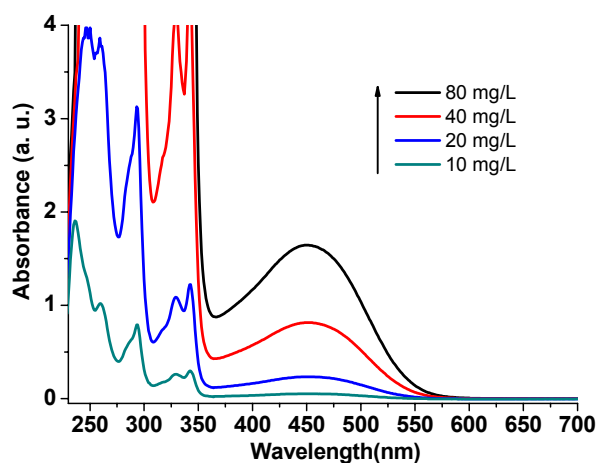


Figure S4. Concentration-dependent UV-visible absorption spectra of PVK-AZO-2CN in THF solutions.

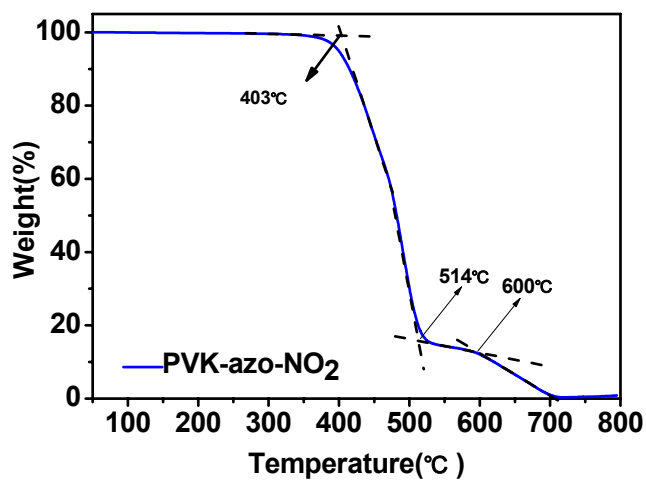


Figure S5. TGA thermogram of PVK-AZO-NO₂.

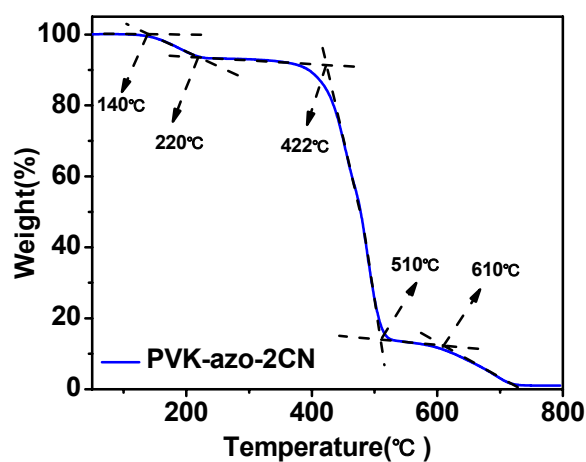


Figure S6. TGA thermogram of PVK-AZO-2CN.

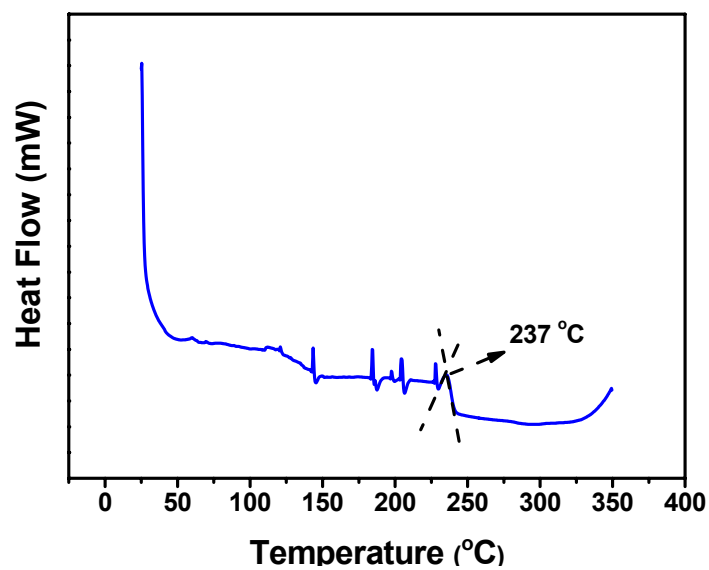


Figure S7. DSC thermogram of PVK-AZO-NO₂.

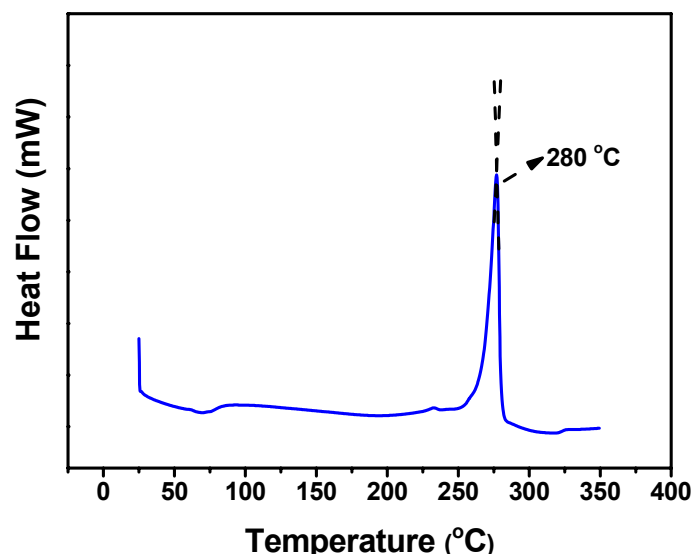


Figure S8. DSC thermogram of PVK-AZO-2CN.