

Supporting Information

Novel Triphenylamine-Containing Ambipolar Polyimides with Pendant Anthraquinone Moiety for Polymeric Memory Device, Electrochromic and Gas Separation Applications

Yi-Cheng Hu,¹ Chih-Jung Chen,¹ Hung-Ju Yen,¹ Kun-Ying Lin,¹ Jui-Ming Yeh,²
Wen-Chang Chen,^{1,3} and Guey-Sheng Liou^{1*}

¹*Institute of Polymer Science and Engineering, National Taiwan University, 1 Roosevelt Road, 4th Sec., Taipei 10617, Taiwan*

²*Department of Chemistry and Center for Nanotechnology and R&D Center for Membrane Technology, Chung-Yuan Christian University, Chung Li 32023, Taiwan*

³*Department of Chemical Engineering, National Taiwan University, 1 Roosevelt Road,
4th Sec., Taipei 10617, Taiwan*

* Corresponding author. E-mail: gsliou@ntu.edu.tw

List of Contents for Supplementary Material:

Figure S1. IR spectra of AQ-6FPI.....	<u>SI-2</u>
Figure S2. TGA thermograms of polyimides AQ-6FPI, AQ-DSPI, OAQ-6FPI, and OAQ-6FPI.....	<u>SI-3</u>
Figure S3. Cyclic voltammetric diagrams of polyimides AQ-DSPI and OAQ-DSPI films on an ITO-coated glass substrate over cyclic scans in 0.1 M TBAP/CH ₃ CN for oxidation, in 0.1 M TBAP/DMF for reduction at a scan rate of 50 mV/s.....	<u>SI-4</u>

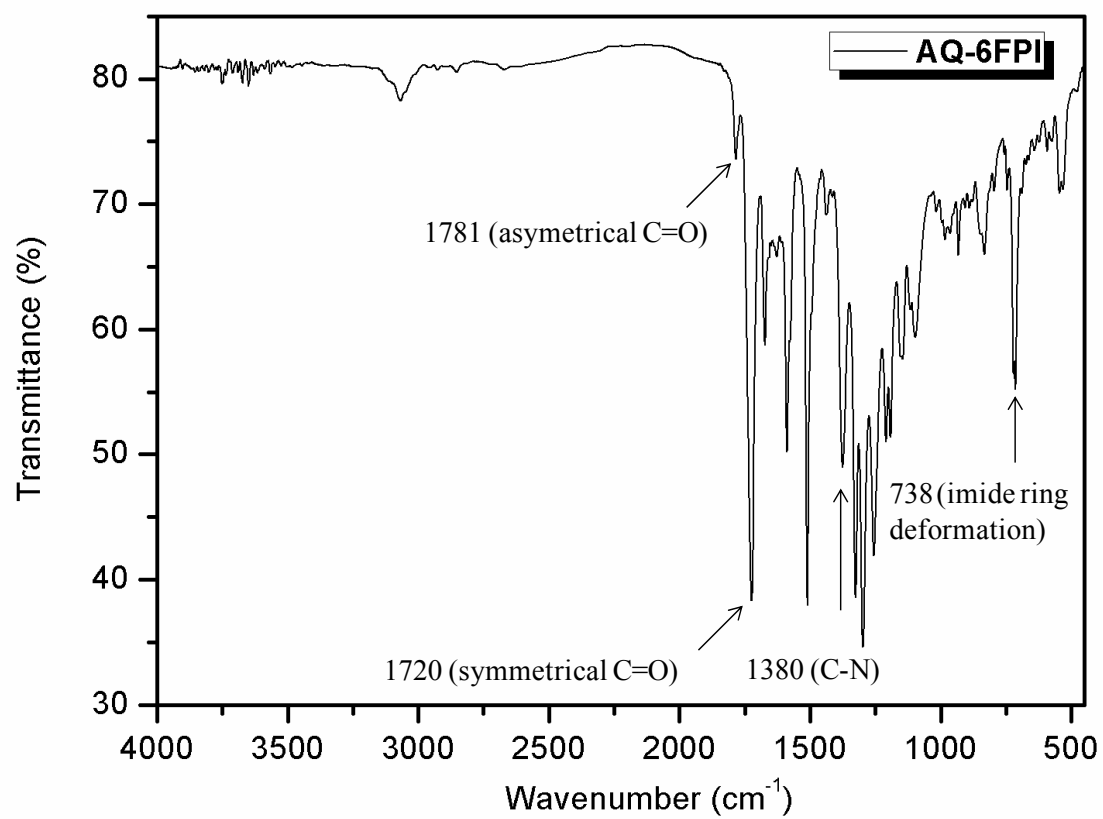


Figure S1. IR spectra of polyimide AQ-6FPI

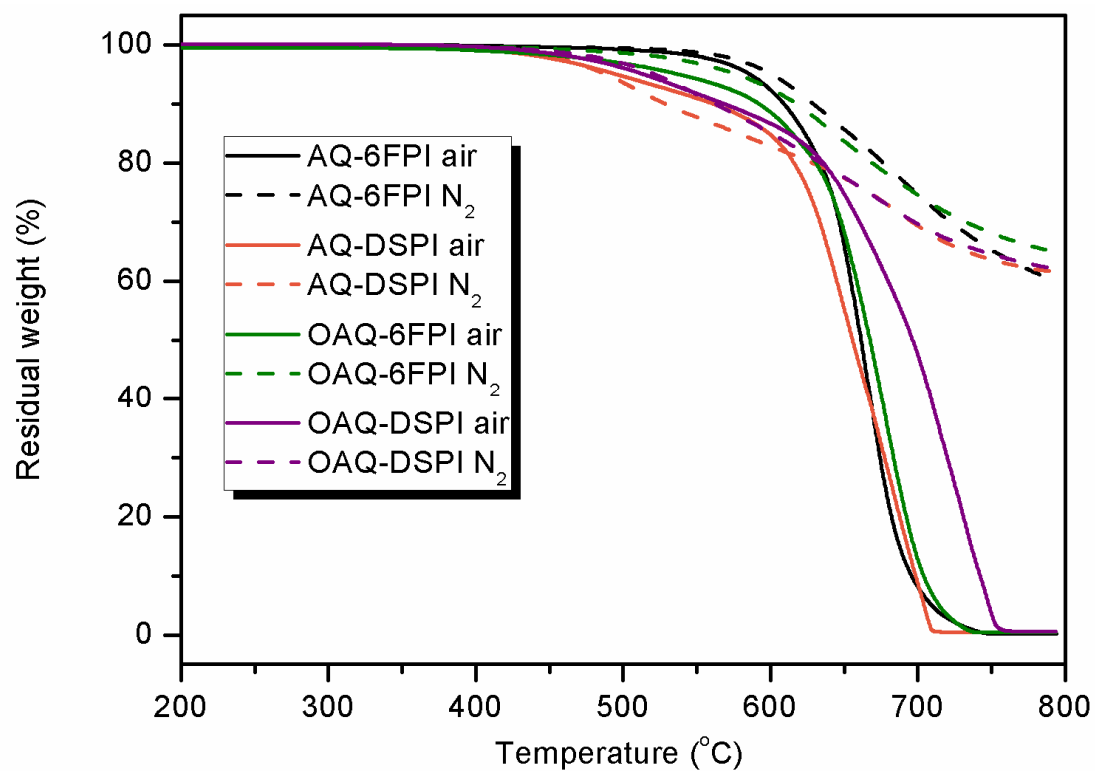


Figure S2. TGA thermograms of polyimides AQ-6FPI, AQ-DSPI, OAQ-6FPI, and OAQ-DSPI.

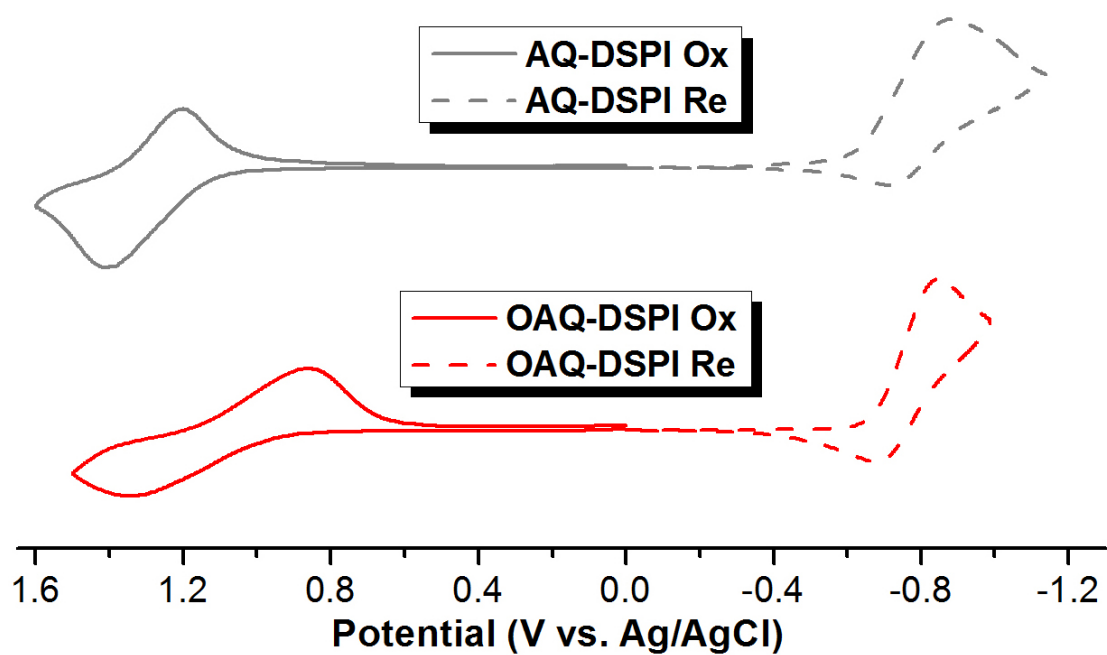


Figure S3. Cyclic voltammetric diagrams of polyimides **AQ-DSPI** and **OAQ-DSPI** films on an ITO-coated glass substrate over cyclic scans in 0.1 M TBAP/CH₃CN for oxidation, in 0.1 M TBAP/DMF for reduction at a scan rate of 50 mV/s.