## **Supplementary Information**

## Synthesis, characterization and diode application of poly(4-(1-(2-phenylhydrazono)ethyl)phenol)

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## 1. GPC analysis chromatograms of poly(4-PHEP)

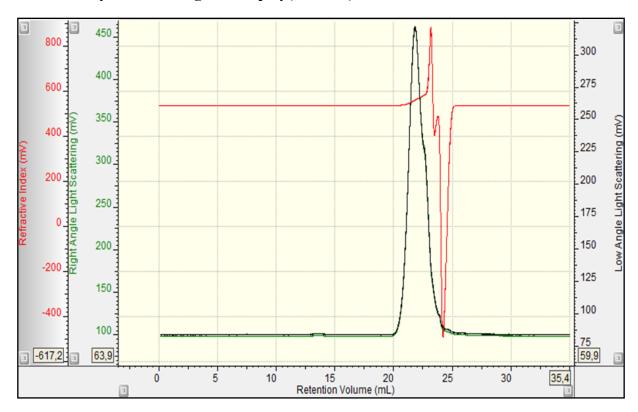


Figure S1. GPC analysis chromatograms of poly(4-PHEP) for NaOCl oxidant.

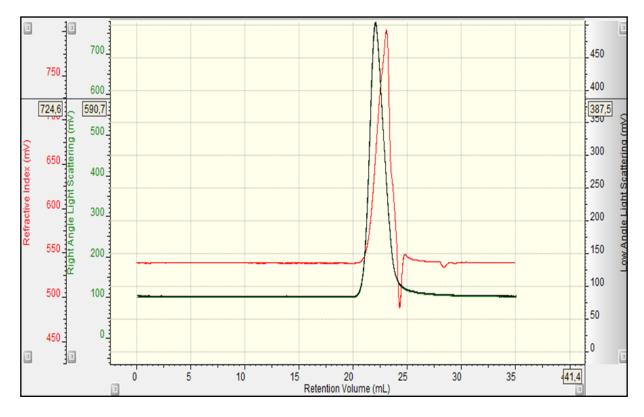
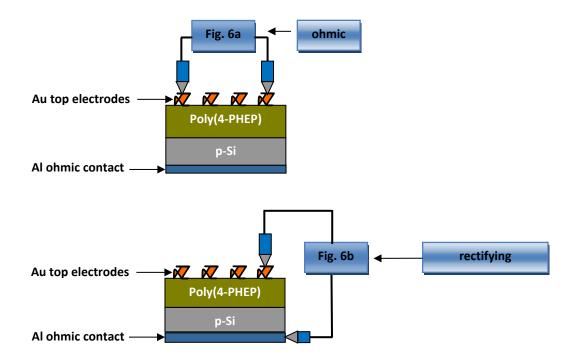


Figure S2. GPC analysis chromatograms of poly(4-PHEP) for atmospheric oxygen oxidant.

## 2. The ohmic and the rectifying (Schottky type) behavior for Au/poly(4-PHEP) and poly(4-PHEP)/p-Si structures



**Figure S3.** Apparatus for measurement technique to compare the current-voltage characteristics of Au/poly(4-PHEP) and poly(4-PHEP)/p-Si structures.