# Nitrile - Substituted Thienyl and Phenyl Units as Building

## **Blocks for High Performance n - Type Polymer Semiconductors**

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#### 1. Thermogravimetric Analysis & Differential Scanning Calorimetry

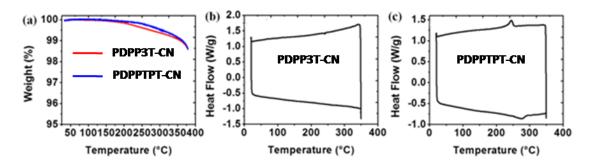
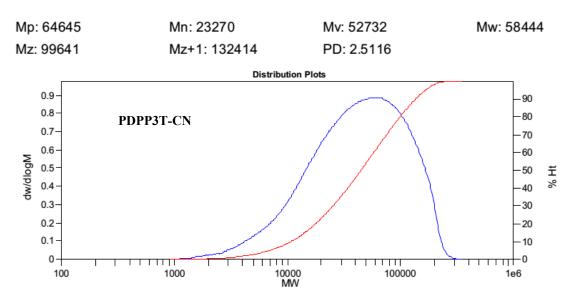


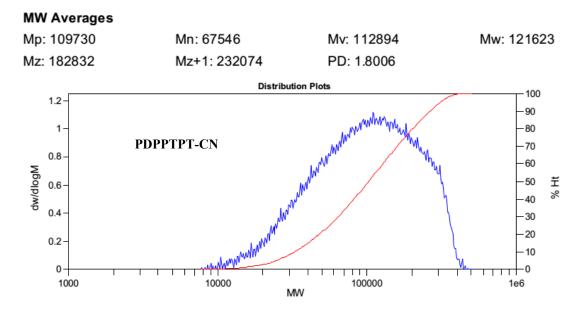
Figure S1. (a) TGA diagram of PDPP3-CN and PDPPTPT-CN; (b-c) DSC diagram

#### of PDPP3-CN and PDPPTPT-CN

### 2. High Temperature Gel Permeation Chromatography (GPC) Diagram of



#### PDPP3-CN and PDPPTPT-CN



3. AFM images of PDPP3T-CN and PDPPTPT-CN thin films at different thermal

(a) as-spun	(b) 160°C	(c) 200°C	(d) 240°C	(e) 280°C	25 nm
					0 nm
(f) as-spun	(g) 160°C	(h) 200°C	(i) 240°C		
		(1) 200 C	(1) 240 C	(j) 280°C	

annealing temperatures.