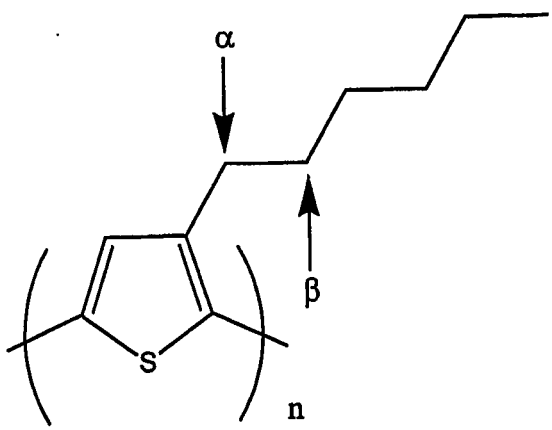


Figure 1.

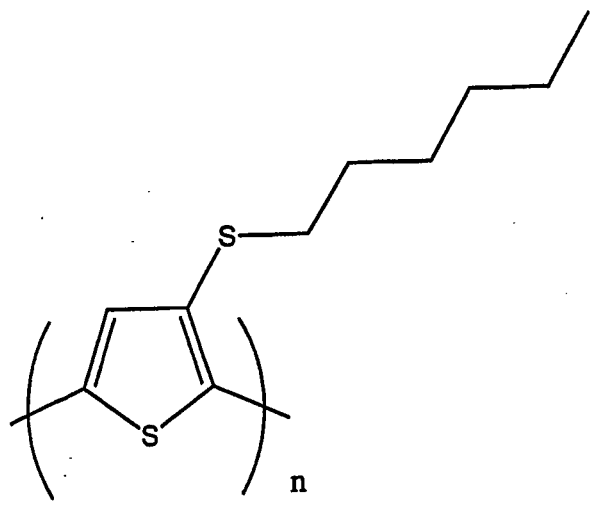


Figure 2.

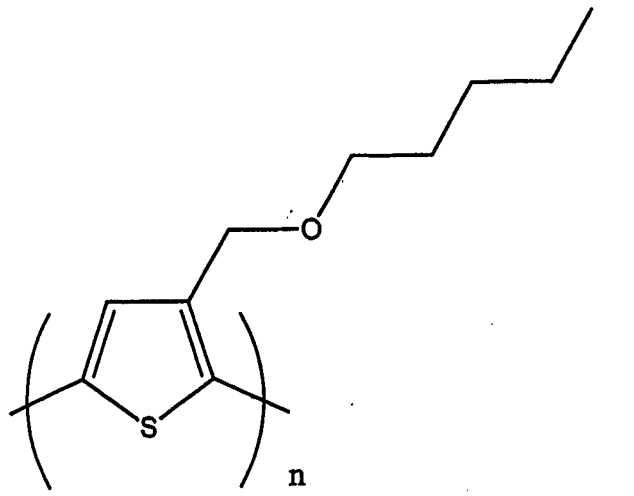


Figure 3

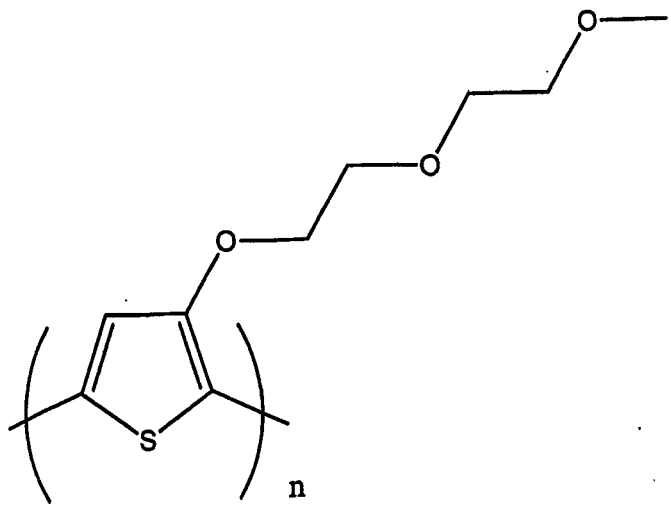


Figure 4..

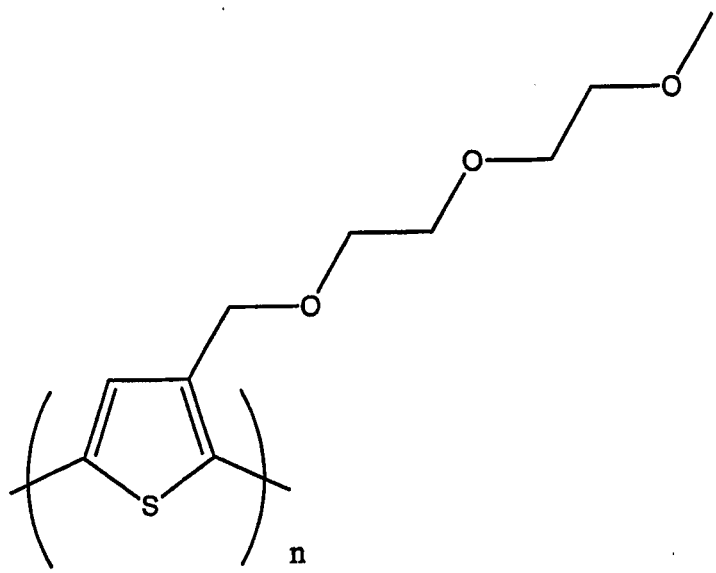


Figure 5

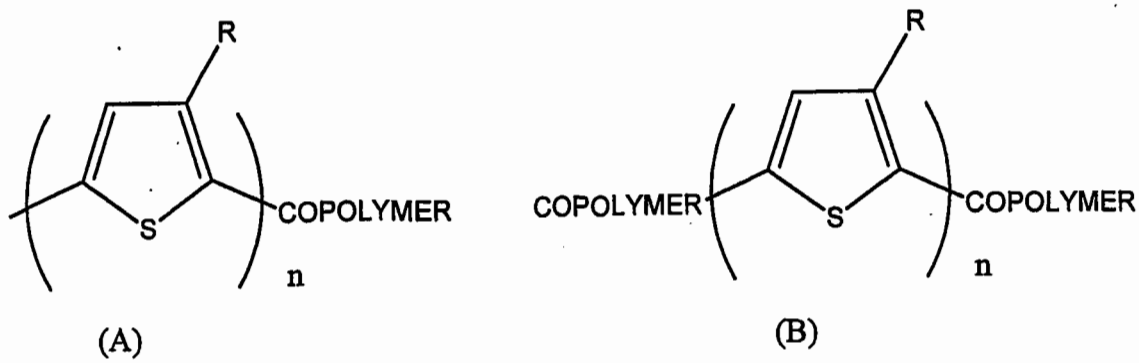


Figure 6.

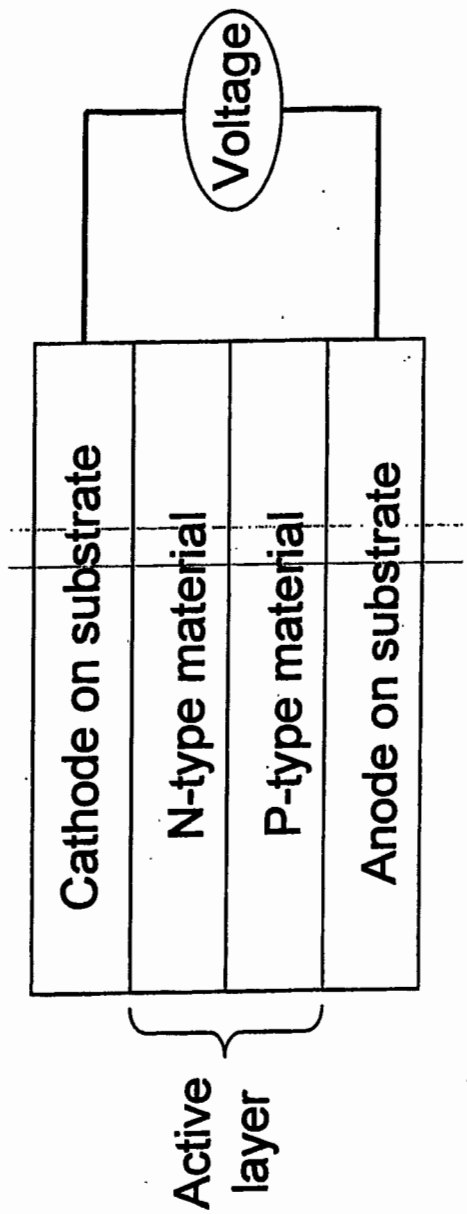

Voltage
Cathode on substrate
N-type material
P-type material
Anode on substrate
Active layer

Figure 7

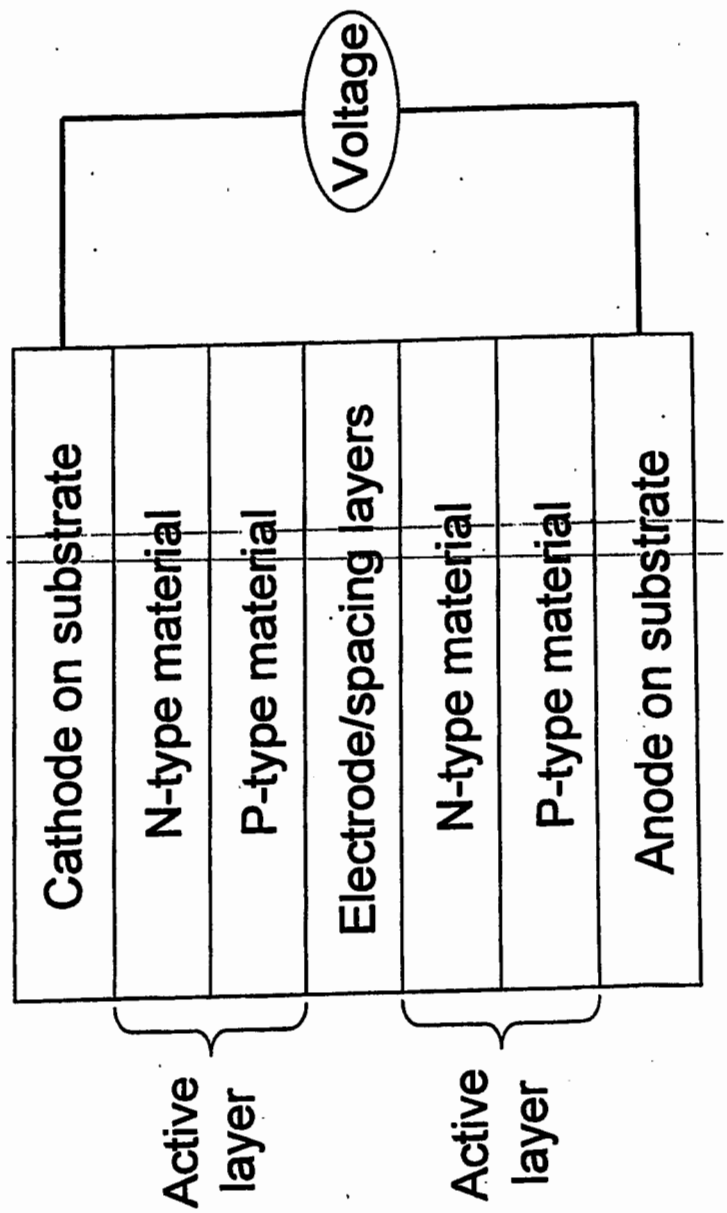

Voltage
Cathode on substrate
N-type material
P-type material
Electrode/spacing layers
N-type material
P-type material
Anode on substrate
Active layer
Active layer

Figure 8

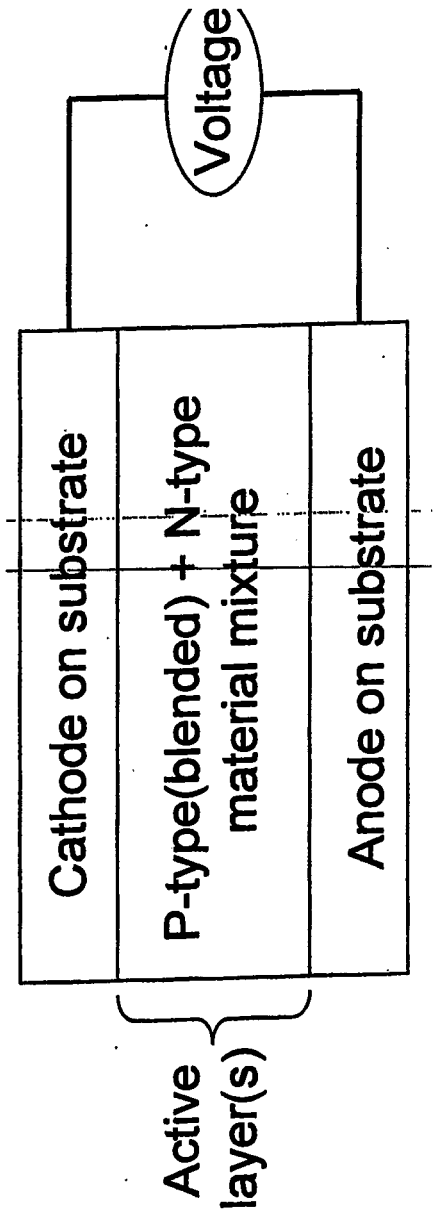

Voltage
Cathode on substrate
P-type(blended) + N-type material mixture
Anode on substrate
Active layer(s)

Figure 9

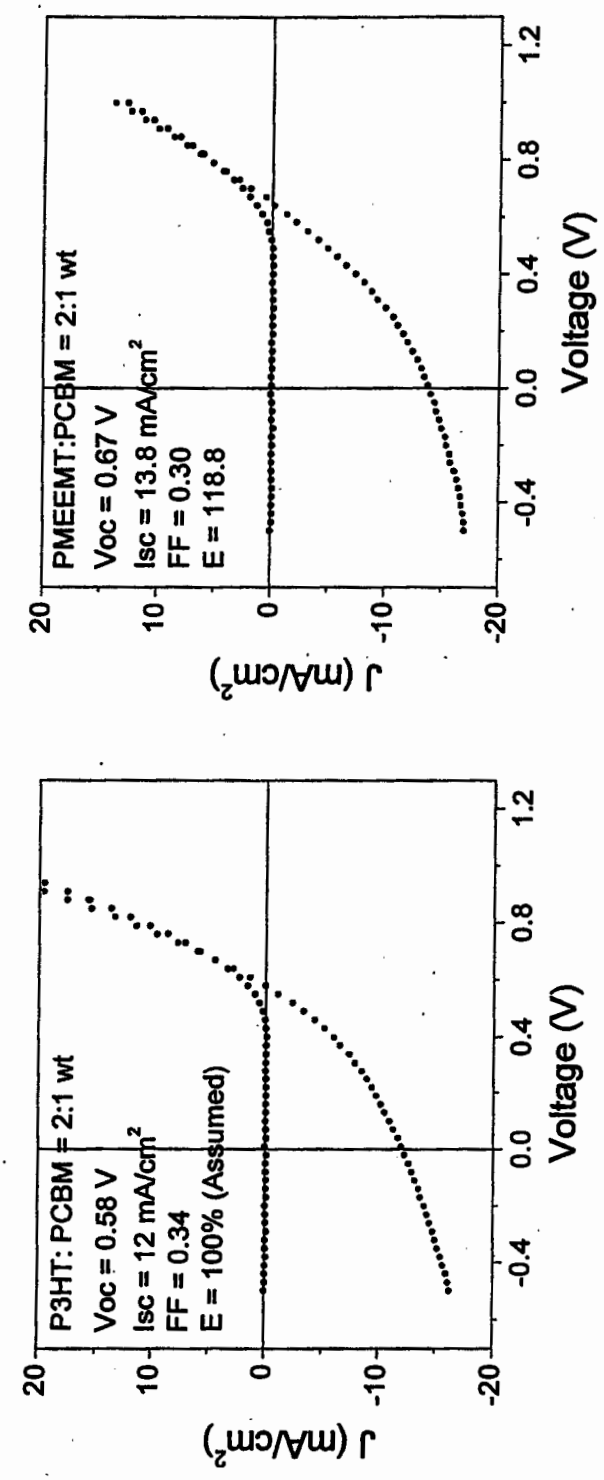

P3HT: PCBM = 2:1 wt
Voc = 0.58 V
Isc = 12 mA/cm2
FF = 0.34
E = 100% (Assumed)
J (mA/cm2)
Voltage (V)
PMEEMT:PCBM = 2:1 wt
Voc = 0.67 V
Isc = 13.8 mA/cm2
FF = 0.30
E = 118.8
J (mA/cm2)
Voltage (V)

Figure 10

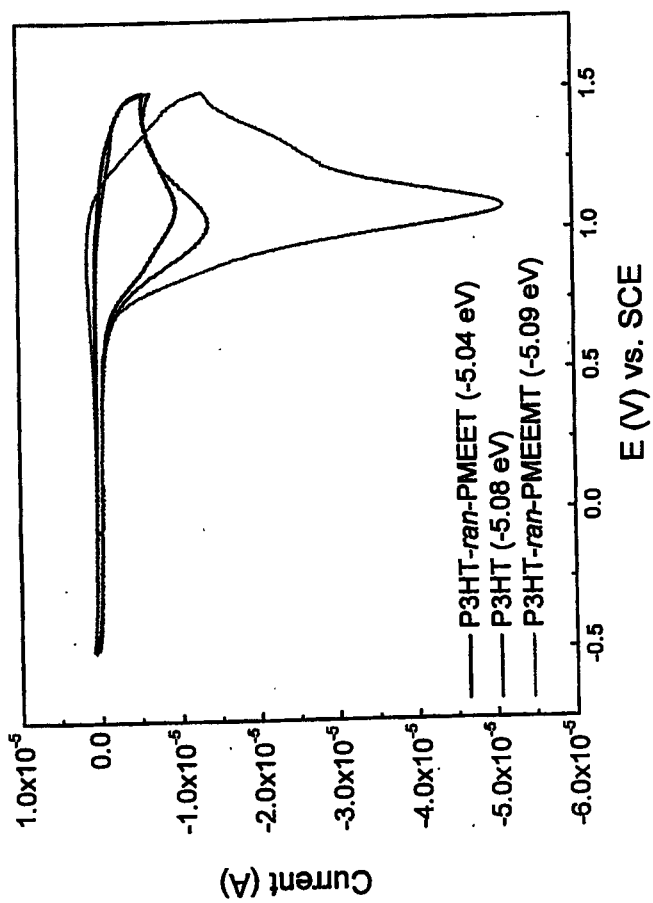

Current (A)
1.0x10⁻⁵
0.0
-1.0x10⁻⁵
-2.0x10⁻⁵
-3.0x10⁻⁵
-4.0x10⁻⁵
-5.0x10⁻⁵
-6.0x10⁻⁵
-0.5
0.0
0.5
1.0
1.5
E (V) vs. SCE
P3HT-ran-PMEET (-5.04 eV)
P3HT (-5.08 eV)
P3HT-ran-PMEEMT (-5.09 eV)

Figure 11: