

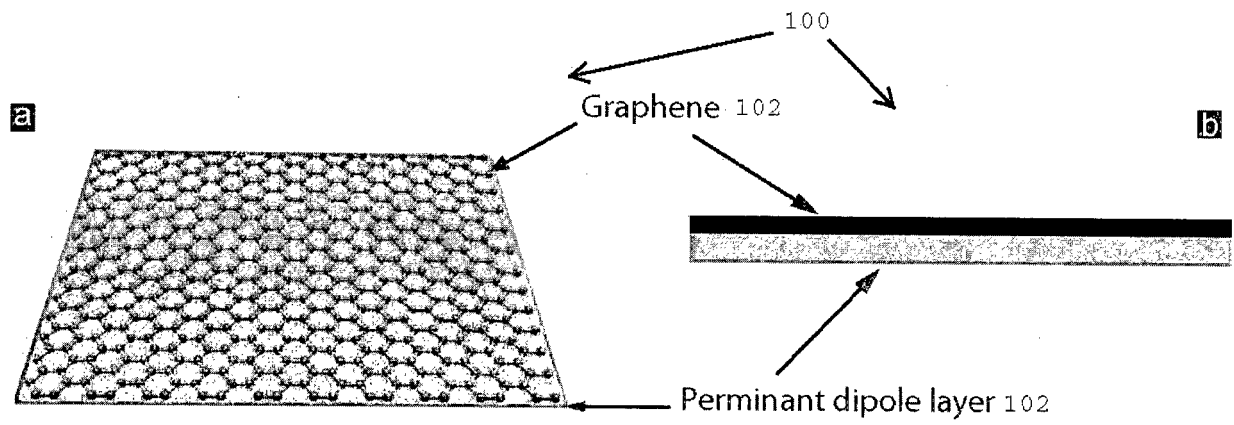
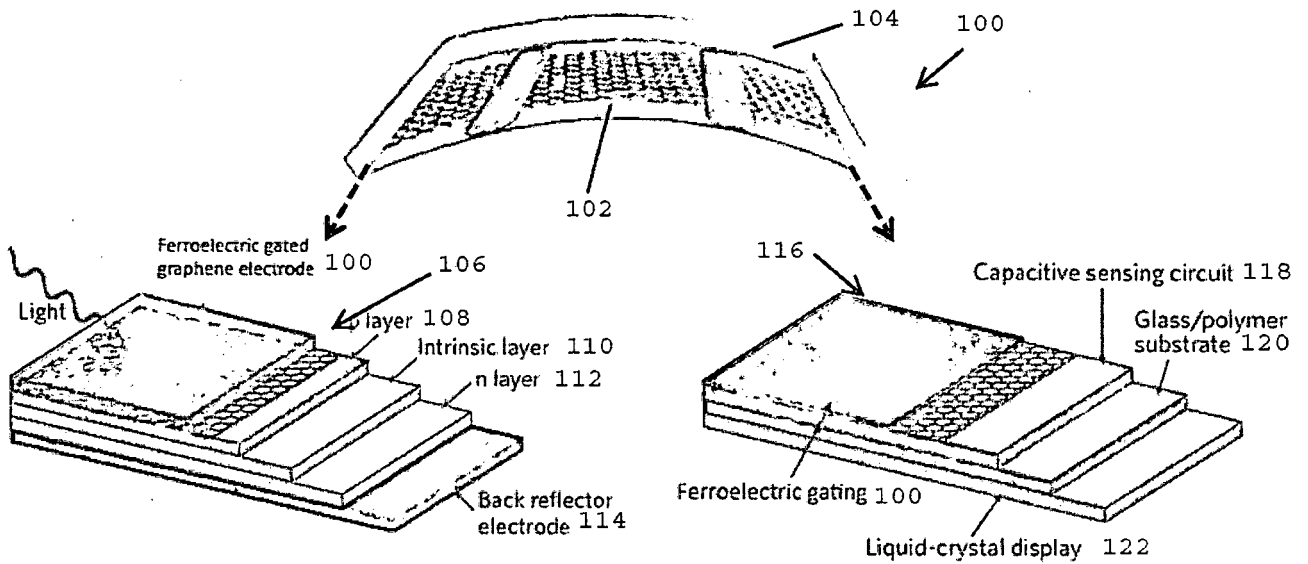


Figure 1

Permanent dipole layer on top of graphene



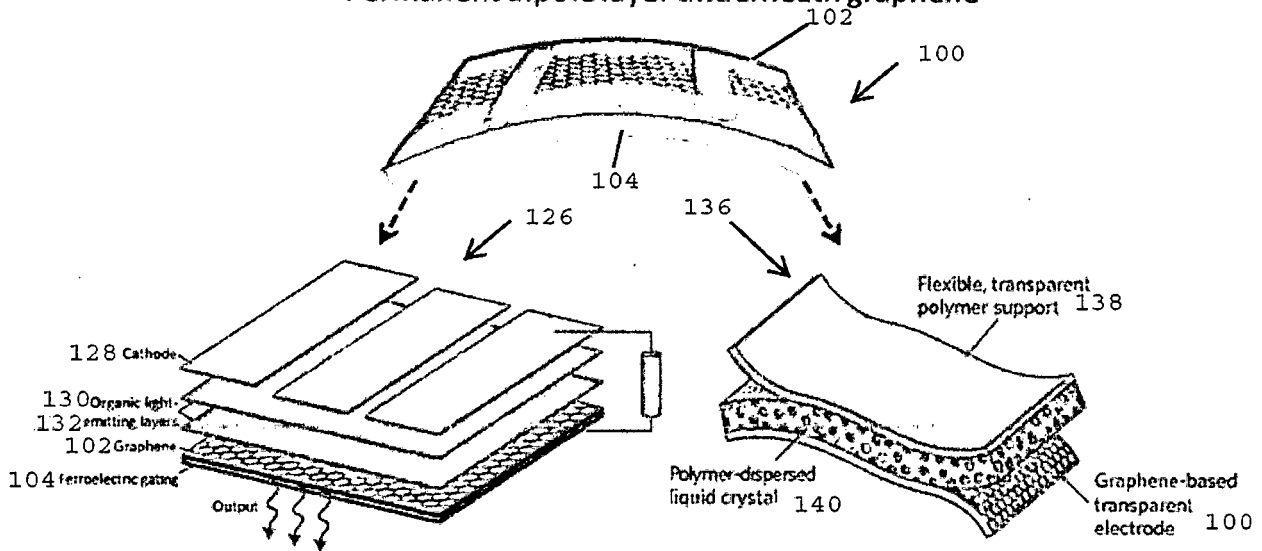
Solar cell

Touch screen

Figure 2(a)

Figure 2(b)

Permanent dipole layer underneath graphene



Organic LED

Smart window

Figure 2(c)

Figure 2(d)

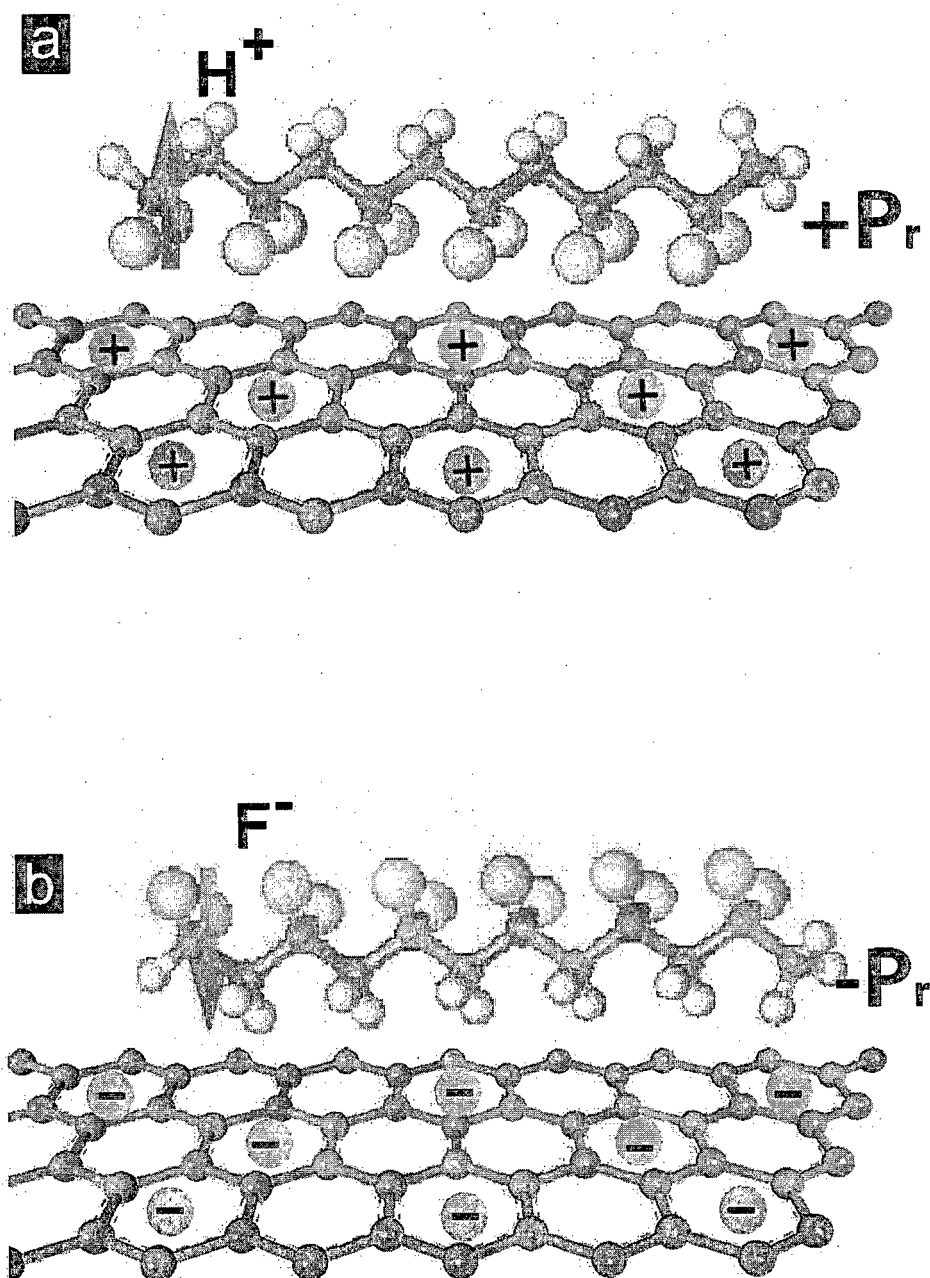


Figure 3

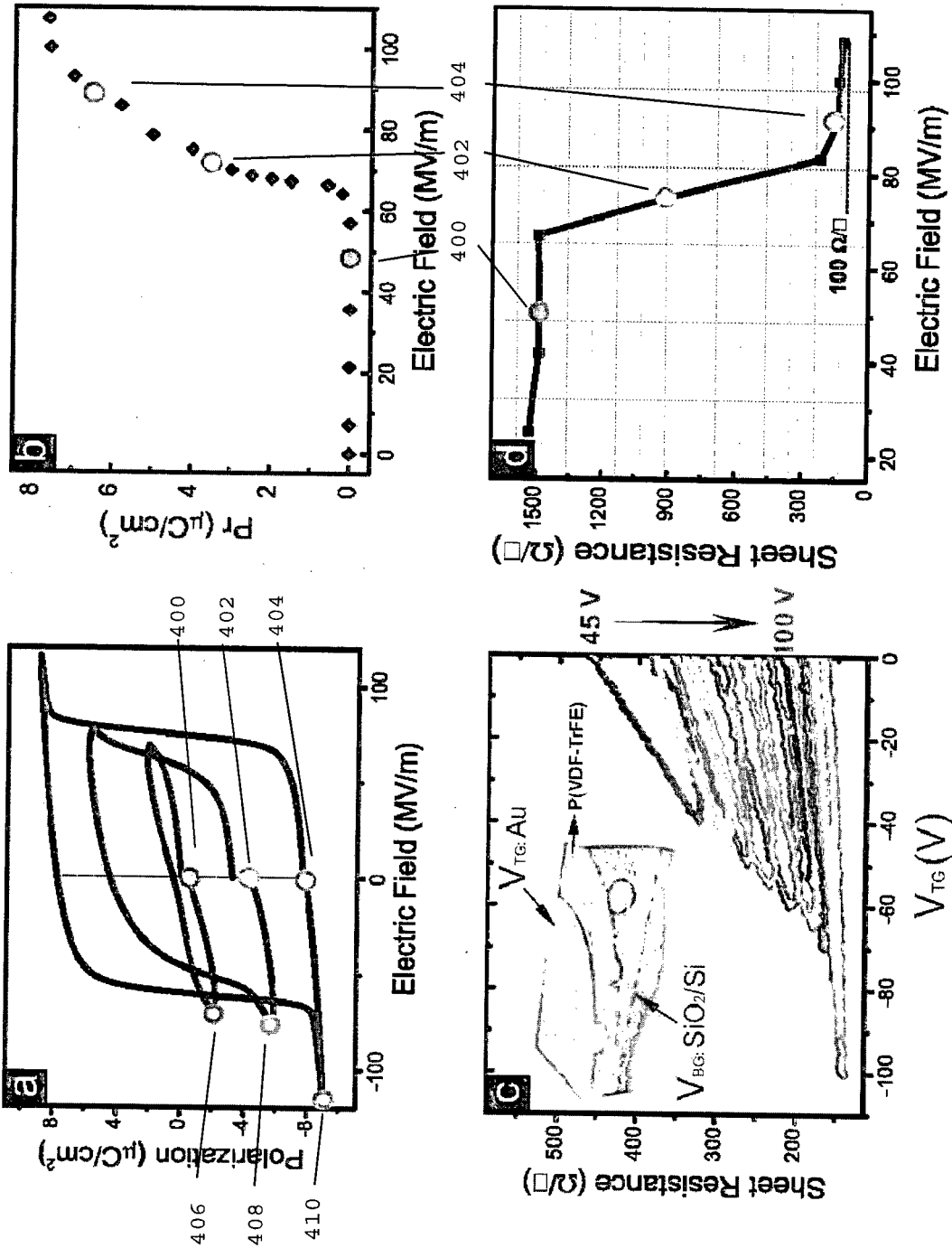


Figure 4

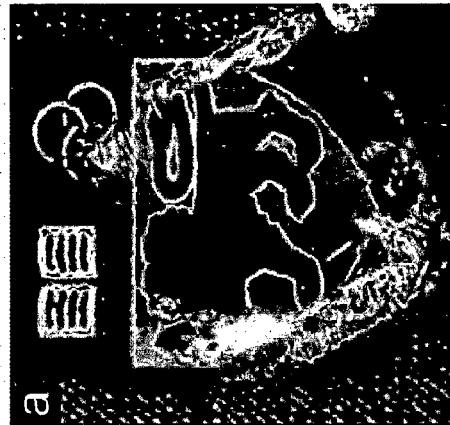
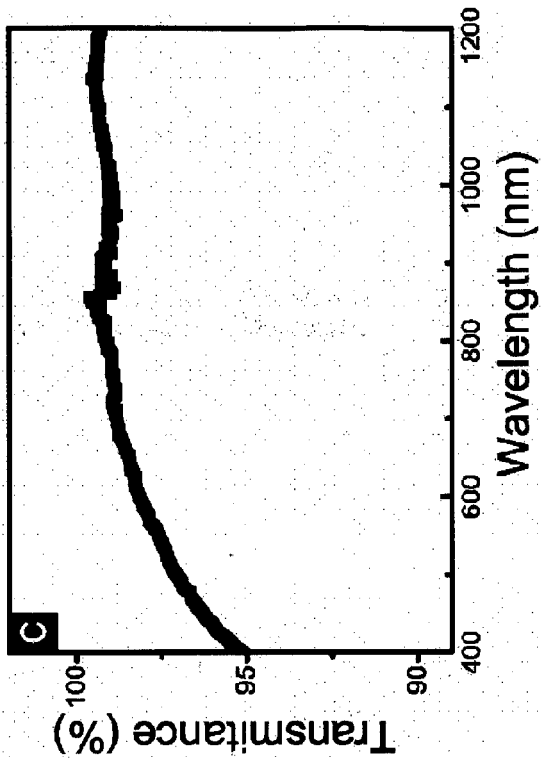


Figure 5

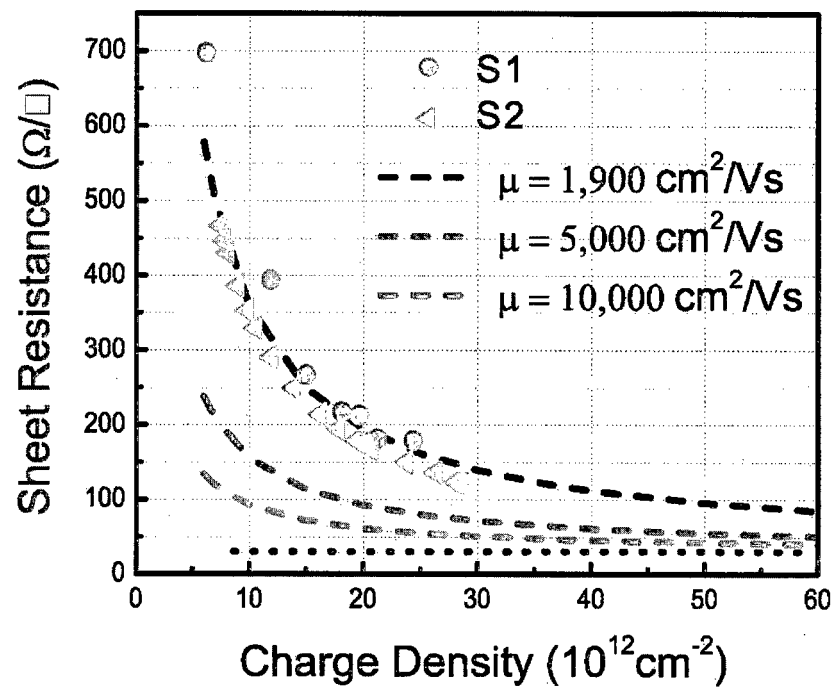


Figure 6

