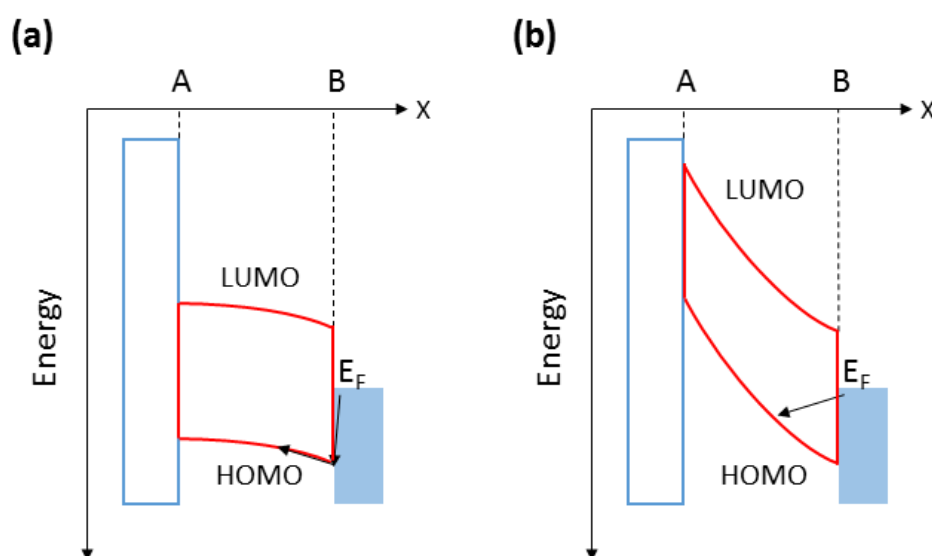


Supplementary Material for

# A wide-range operating synaptic device based on organic ferroelectricity with low energy consumption



**Fig. S1** Band diagram at the ITO contact of an unpoled (a)/poled (b) diode along the cross section A-B in Fig. 1(b) of the paper. Poling of the ferroelectric material yields opposite charges at the ferroelectric-semiconductor interface, induces band bending in the semiconductor and leads to enhanced charge injection.