

Supplementary Materials

Ferroelectric Tuning of ZnO Ultraviolet Photodetectors

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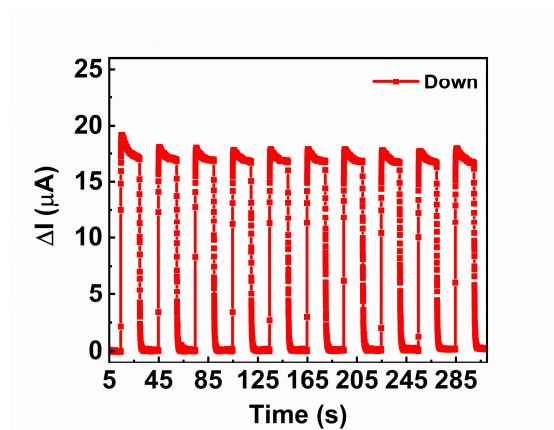


Figure S1. The ΔI -t characteristic curves of the device in the Down state when $V_{DS}=0.1$ V.

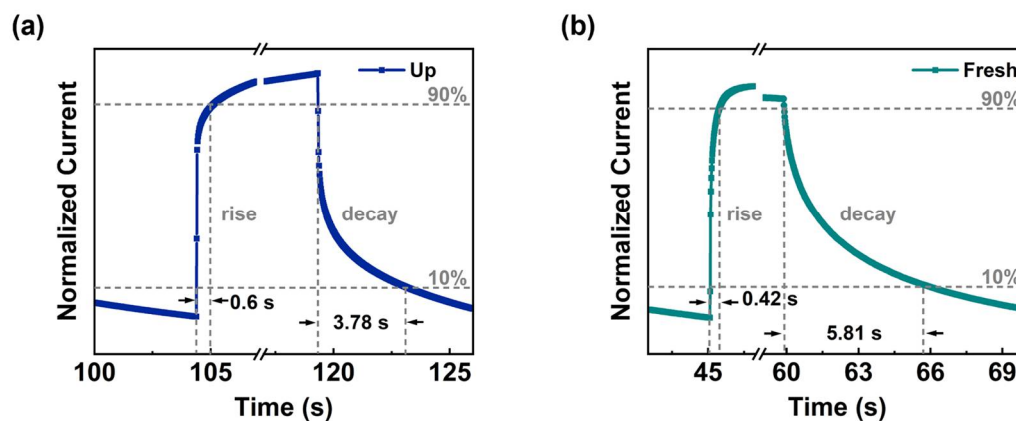


Figure S2. The response time of the ZnO NW Fe-FET device in a) the Up state and b) the Fresh state.

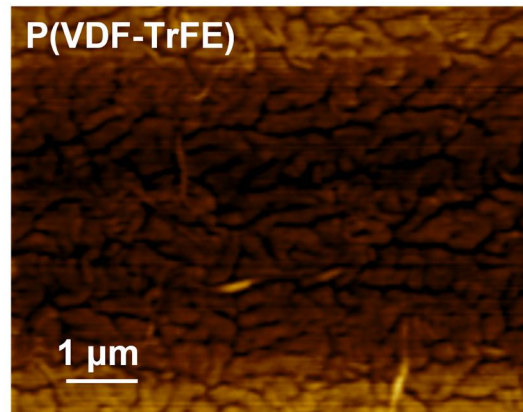


Figure S3. Atomic force microscopy (AFM) image of the P(VDF-TrFE) film.

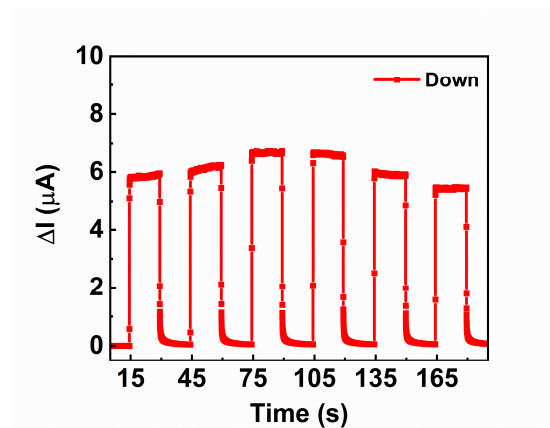


Figure S4. The ΔI -t characteristic curves of the device in the Down state when $V_{DS}=1$ V.

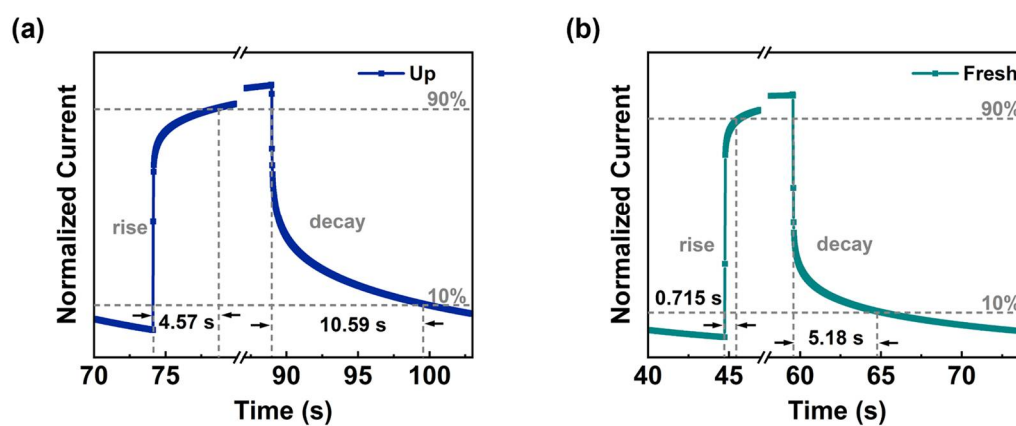


Figure S5. The response time of the ZnO film device in (a) the Up state and (b) the Fresh state.

Table S1. Comparison of the main parameters of the UV photodetectors in this work.

Materials	Rise/Fall time [ms]	Responsivity [A/W]	Bias [V]	Detectivity [Jones]	Ref.
CuBr	32/48	3.17	10	1.4×10^{11}	[35]
FeS₂- PbS/graphene	-	1.78×10^6	0.1	6.46×10^{11}	[36]
MAPbI₃/TiO₂	$(2/1) \times 10^3$	1.3	1	2.5×10^{12}	[37]
Ag-p-NiO/n-rGO	800/840	0.072	0	3.95×10^{12}	[38]
CuZnS/TiO₂	-	640	3	-	[39]
ZnO NWs/CIPS	110/450	2.40×10^4	0.1	7.17×10^{11}	This work