Supporting Information

Vertical tip-to-tip Interconnection p-n Silicon Nanowires for Plasmonic Hot Electron-Enhanced Broadband Photodetectors

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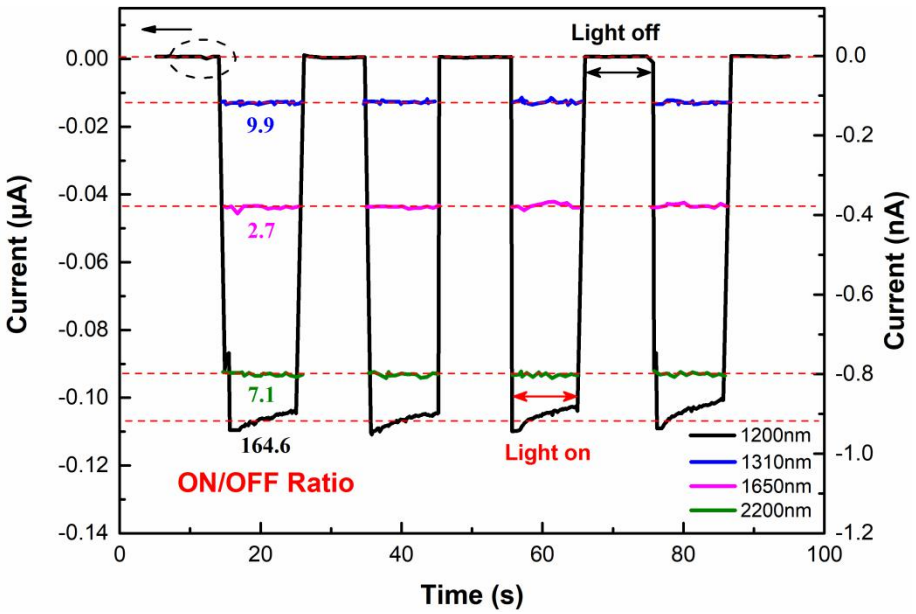

Figure S1. ON/OFF ratio of the photodetector under wavelengths of 1200nm, 1310nm, 1650nm and 2200nm at zero bias voltage.

Table S1. Calculation parameters of D*

bias voltage (V)	A_{PD} (cm^2)	q	R (A/W)	I_{dark} (A)	D* (cm $HZ^{1/2}W^{-1}$)
0	0.09	1.6×10^{-19}	5.05×10^{-4}	6.79×10^{-10}	1.03×10^{10}
1	0.09	1.6×10^{-19}	0.00993	3.88×10^{-6}	2.67×10^{9}
2	0.09	1.6×10^{-19}	0.01886	8.96×10^{-6}	3.34×10^{9}
3	0.09	1.6×10^{-19}	0.02087	1.50×10^{-5}	2.85×10^{9}
4	0.09	1.6×10^{-19}	0.02339	2.07×10^{-5}	2.73×10^{9}
5	0.09	1.6×10^{-19}	0.02511	2.64×10^{-5}	2.59×10^{9}