Supplementary Materials: CVD-Grown 2D Nonlayered NiSe as a Broadband Photodetector

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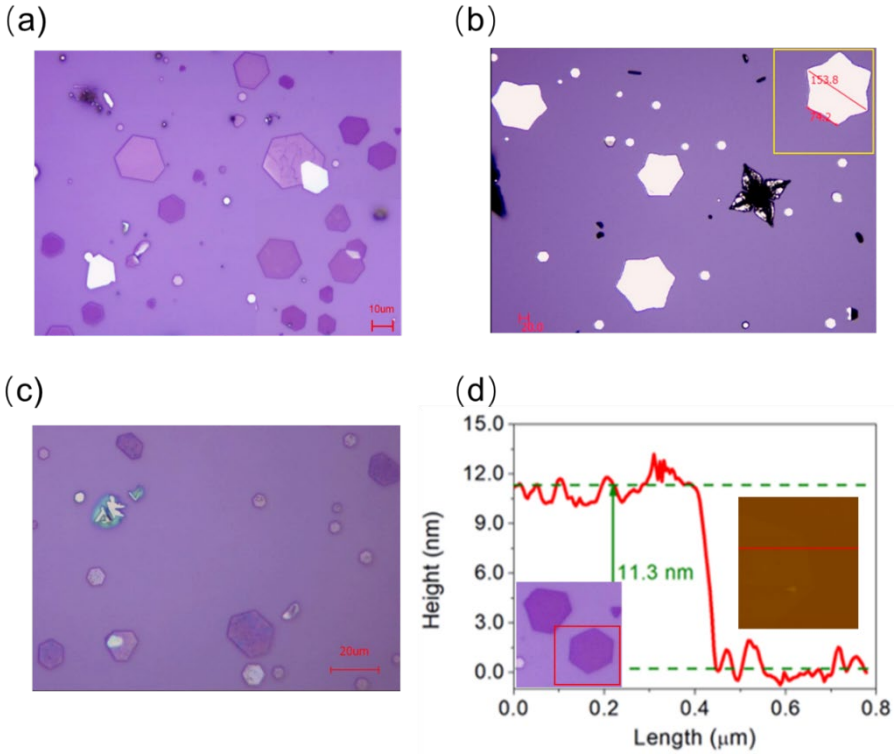

Figure S1 The optical images and AFM results of grown NiSe flakes. (**a**) The optical images of NiSe flakes with different morphologies. (**b**) The optical image of NiSe flakes with 153.8 um. (**c**) The optical image of NiSe flakes grown one month ago. (**d**) The optical image of thinner NiSe flake and the corresponding AFM result with height profile and recognition image.

Table S1. The summaries of nonlayered materials-based photodetectors.

Materials	Laser wavelength (nm)	Voltage (V)	*R* (A/W)	*D** (Jones)	Ref.
PdS	400	2	0.05	7.81×10^{8}	[1]
CdTe	473	1	0.6×10^{-3}	-	[2]
β-In_2S_3	450	1	137	4.74×10^{10}	[3]
Te	350	0.6	1.34×10^{-5}	3.1×10^{7}	[4]
$Pb_{1-x}Sn_xSe$	473	2	5.95	-	[5]
γ-Ga_2S_3	350	1	61.3	1.52×10^{10}	[6]
ZnSb	1550	0.5	89.2	1.7×10^{10}	[7]
CoSe	10.6×10^{3}	1	2.58	3.3×10^{9}	[8]
NiSe	10.6×10^{3}	0.1	6.96	2.3×10^{7}	This work

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