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A Novel High-Performance Self-Powered UV-Vis-NIR Photodetector Based on CdS Nanorod Array/Reduced Graphene Oxide Film Heterojunction and its Piezo-Phototronic Regulation

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Fig. S1 The photograph of the photodetector based on the CdS nanorod array and rGO film.



Fig. S2 The length and diameter distributions of CdS nanorod array. The number of CdS nanorods for the statistic is greater than 50.



Fig. S3 The electrical current voltage (I-V) characteristics. (a) FTO/CdS; (b) carbon paste/rGO.



Fig. S4 The spectral response of CdS nanorod array/rGO film heterojunction. (a) The optical intensity ; (b) The photocurrent. The irradiation sources are Xenon lamp (300-1000 nm) or LEDs (1200, 1300, 1450 nm).



Fig. S5 The optical absorption and flurorescence spectra of CdS nanorod array. (a) absorption spectra (b) The flurorescence spectrum.



Fig. S6 Dynamic *I-T* curves of the photodetector with repeated compressive strains (-2%) and unloading cycles at a fixed 365 nm irradiation of 3 mW/cm^2 .