## Supporting Information

## Rational engineering of 1D NiMoO<sub>4</sub>/0D CdS heterostructure for efficient photocatalytic hydrogen generation under visible light

## Mohamed AbdEl-Aal<sup>1†</sup>, Mahmoud R. Saleh<sup>2†\*</sup>, Haitham M. El-Bery<sup>2\*</sup>

<sup>1</sup>Chemistry Department, Faculty of Science, Assiut University, Assiut 71515, Egypt.

<sup>2</sup>Advanced Multifunctional Materials Laboratory, Chemistry Department, Faculty of Science, Assiut University, Assiut 71515, Egypt.

\*Corresponding Author Email: <u>Haitham.El-Bery@aun.edu.eg</u>

**†These authors are equally contributed** 



Fig. S1. Time course of H<sub>2</sub> evolution over CdS-NiMoO<sub>4</sub> and NiMoO<sub>4</sub> composites using different Xe filters of AM 1.4, UVCUT400, and UVCUT420. (Reaction conditions: 100 mg of sample, pH~12.6, and reaction time is 3h)



Fig. S2. UV–vis DRS of NiMoO<sub>4</sub>@CdS\_X, where X referred to the mass percent of NiMoO<sub>4</sub> in the composite.



Fig. S3. Photocurrent responses of CdS, and NiMoO<sub>4</sub>@CdS electrodes by using LSV.



Fig. S4. Photocurrent response of NiMoO<sub>4</sub> photoelectrode by using CAM.