

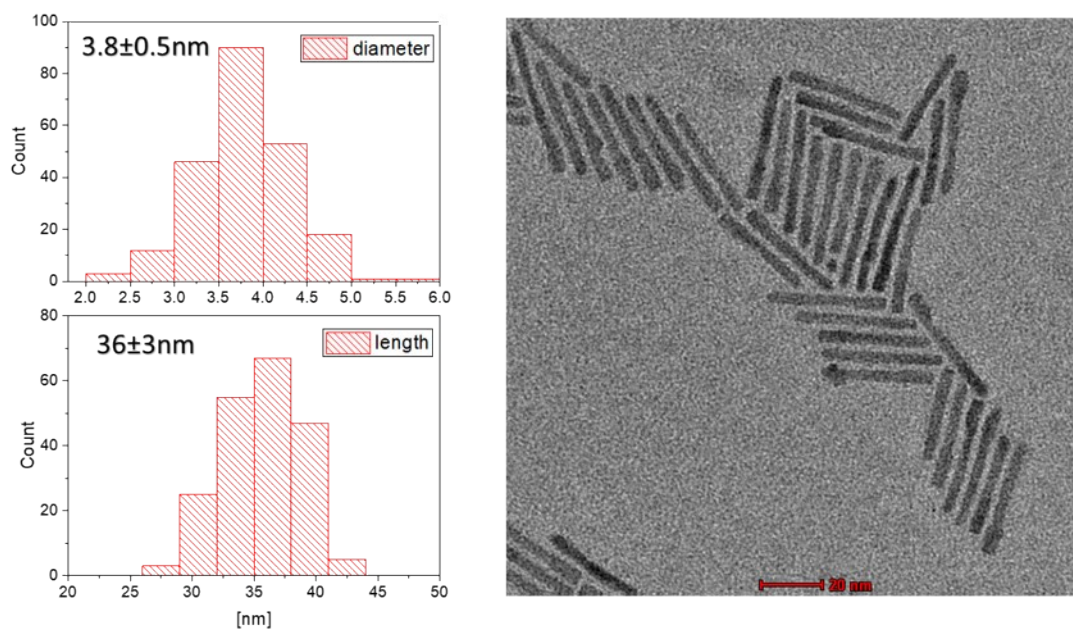
## Supporting information

### Flow Synthesis of photocatalytic semiconductor-metal hybrid nanocrystals

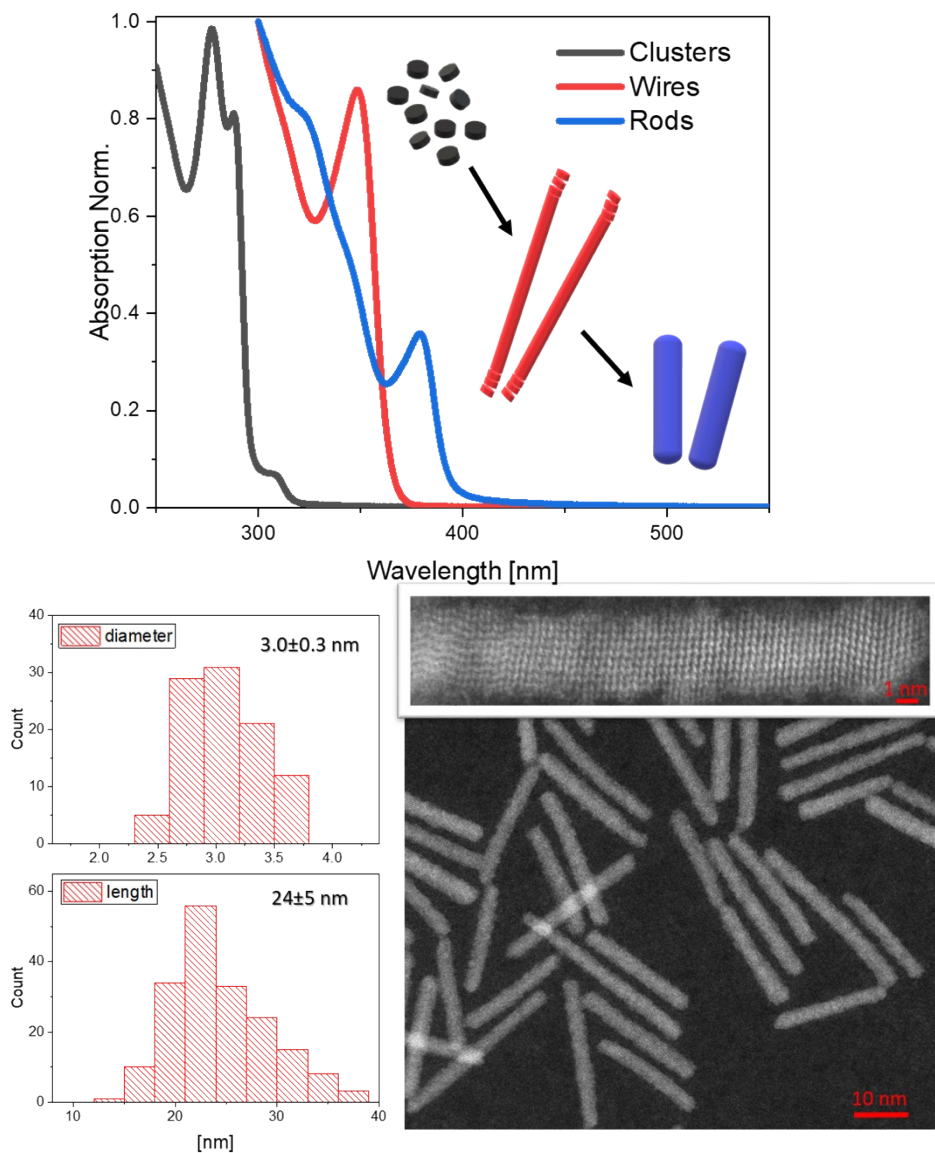
Authors: Tal Cohen,<sup>1,2</sup> Nir Waiskopf,<sup>1,2</sup> Adar Levi,<sup>1,2</sup> David Stone,<sup>1,2</sup> Sergei Remennik,<sup>2</sup> Uri Banin<sup>1,2\*</sup>

<sup>1</sup>The Institute of Chemistry and <sup>2</sup>The Center for Nanoscience and Nanotechnology, The Hebrew University of Jerusalem, Jerusalem 91904, Israel.

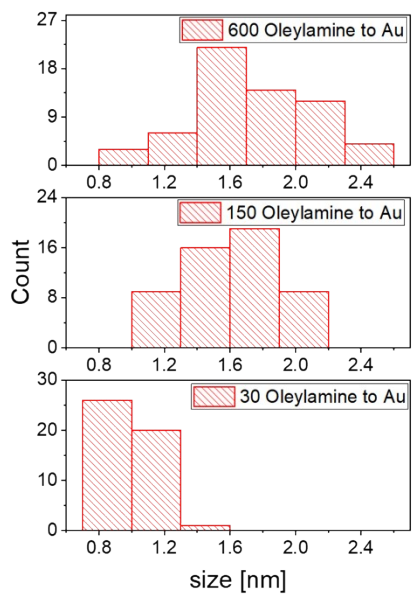
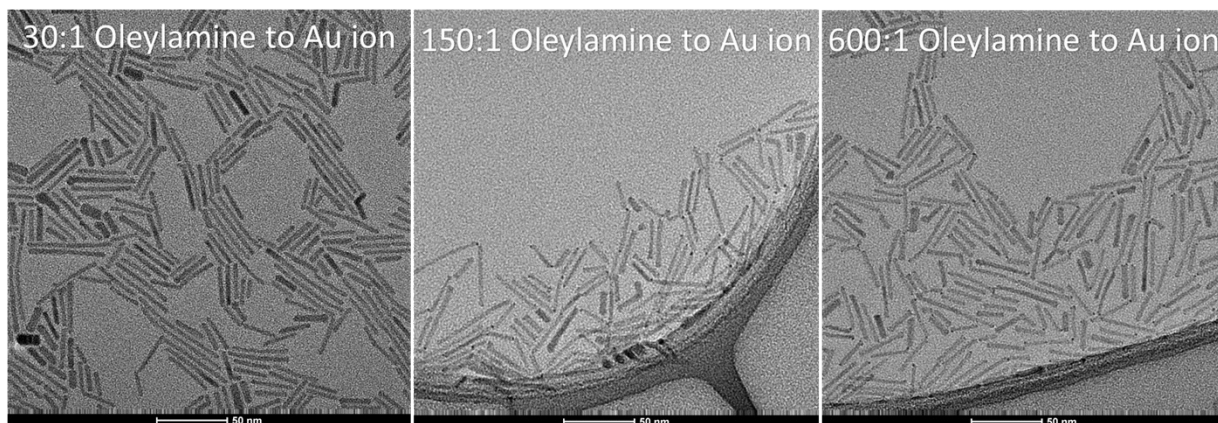
\* Corresponding author. Email: [uri.banin@mail.huji.ac.il](mailto:uri.banin@mail.huji.ac.il)



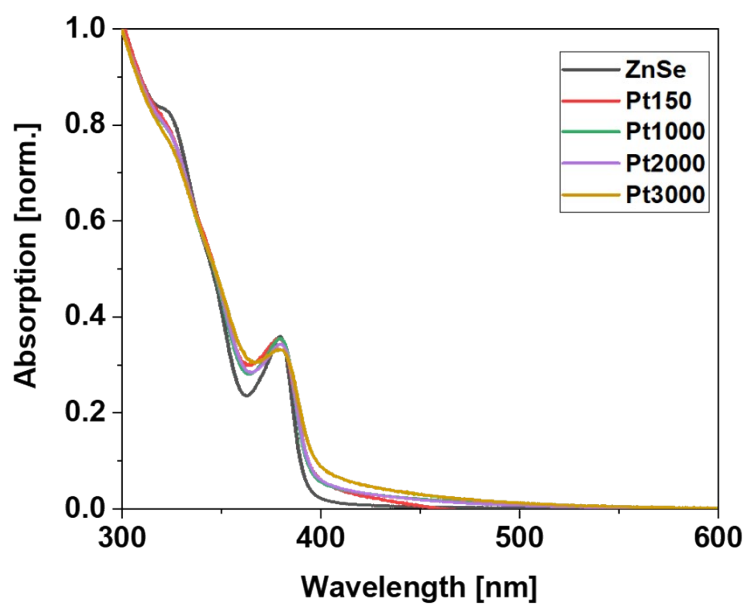
Size **figure S1**. histogram of the diameter and the length of the CdSe@CdS nanorods and TEM image of the resulting CdSe@CdS nanorods.



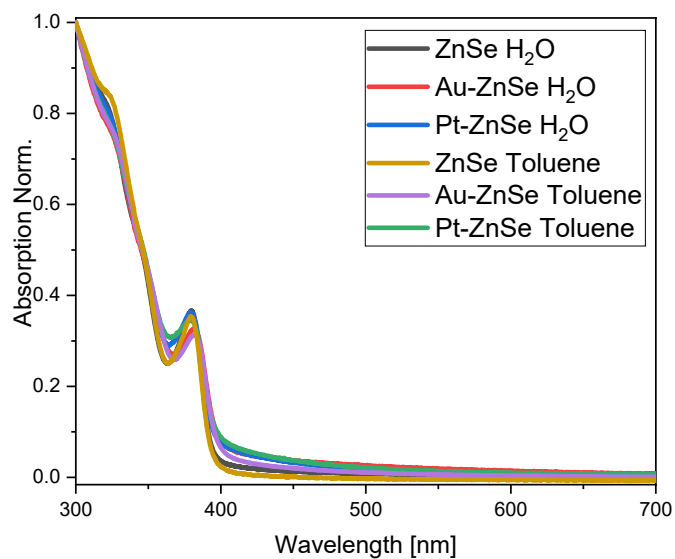
**Figure S2.** Absorption spectra of the species throughout the reaction, from clusters to wires and rods. Size histograms of the diameter and the length of the ZnSe rods. STEM image of the resulting ZnSe nanorods.



**Figure S3.** TEM images and histograms for the Au tip size for the different amounts of oleylamine added to the Au stock solution. Larger amounts resulted in larger tip sizes.



**Figure S4.** Absorption measurements of Pt-ZnSe synthesized with different ratios of Pt/ZnSe nanorods.



**Figure S5.** Absorption measurements of ZnSe and HNP's in toluene and  $H_2O$ . No significant change is observed after phase transfer.