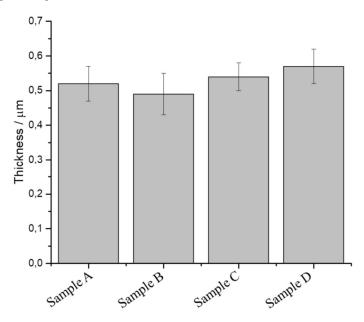




## Supplementary Materials: Wet Synthesis of Elongated Hexagonal ZnO Microstructures for Applications as Photo-Piezoelectric Catalysts

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**Figure S1.** Thickness estimation of the samples A, B, C and D. The error bars were calculated as standard deviation of the results obtained repeating the measurement on 5 samples obtained in the same experimental conditions.

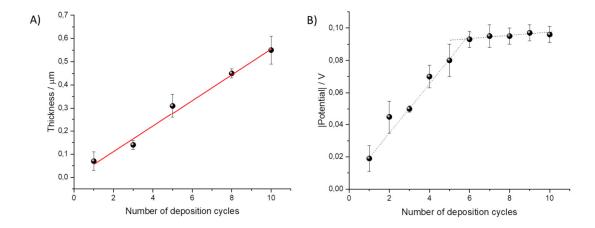


Figure S2. A) Thickness estimation of ZnO film as a function of different number of deposition cycles. B) Piezo-potential recorded for samples with different thickness. An asymptotic value can be reached when a thickness of the piezoelectric layers approaches about  $0.35~\mu m$ .

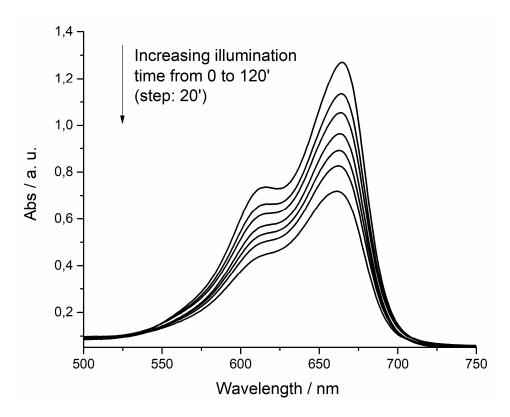
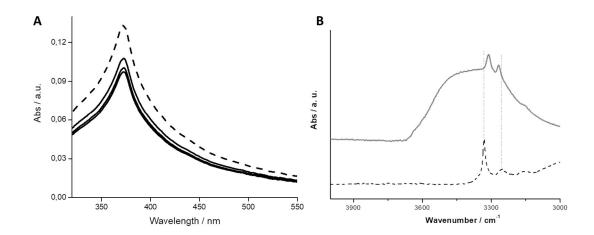


Figure S3. Photo-degradation of methylene blue assisted by ZnO powder of sample A.



**Figure S4. A.** Bleaching of the ZnO absorption peak before the substrate immersion in water (dotted line) and after 10, 20 and 30 minutes immersion (continuous lines). **B.** FTIR spectra at high wavenumber ( $4000-3000 \text{ cm}^{-1}$ ) of ODA thin film and ZnO/ODA multilayer.



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