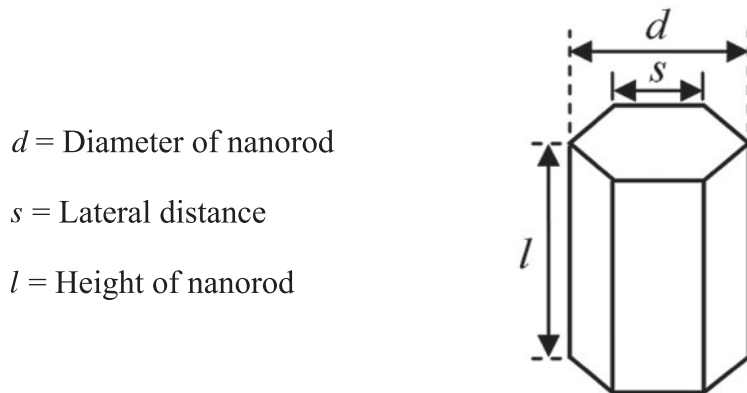


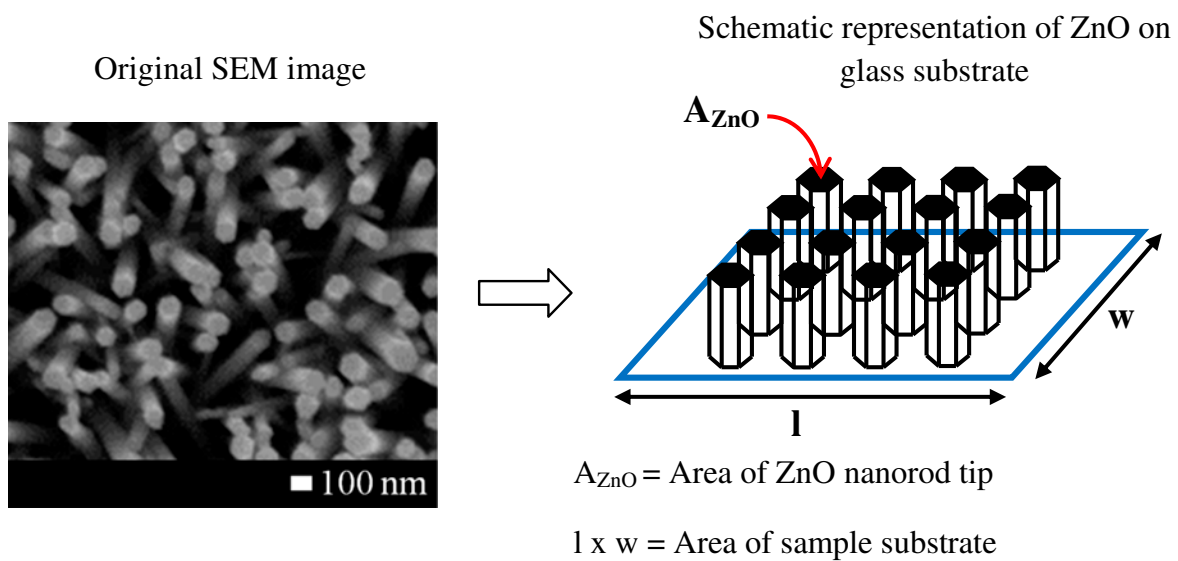
Supplementary information



$$\text{Total area of single ZnO nanorod} = \frac{3s}{2} \sqrt{(d^2 - s^2)} + 6sl$$

$$\text{Effective surface area} = \text{Total area of single ZnO nanorod} \times \text{number of nanorods cm}^{-2}$$

Figure S1. Effective surface area calculation.



$$\text{Surface coverage (\%)} = \frac{\text{Area of single ZnO nanorod tip} \times \text{Total number of ZnO nanorod}}{\text{Area of sample substrate}} \times 100$$

Figure S2. Schematic representation of surface coverage of ZnO nanorod on sample surfaces.

Surface coverage of ZnO nanorods on the sample substrata (samples I and II) was estimated from SEM images using the image analysis software (Image J; NIH, USA).

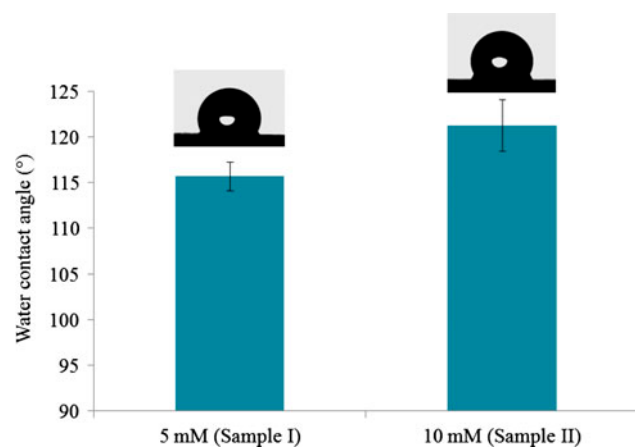


Figure S3. Surface wettability (water contact angle) on ZnO nanorod coated glass substrata (samples I and II).

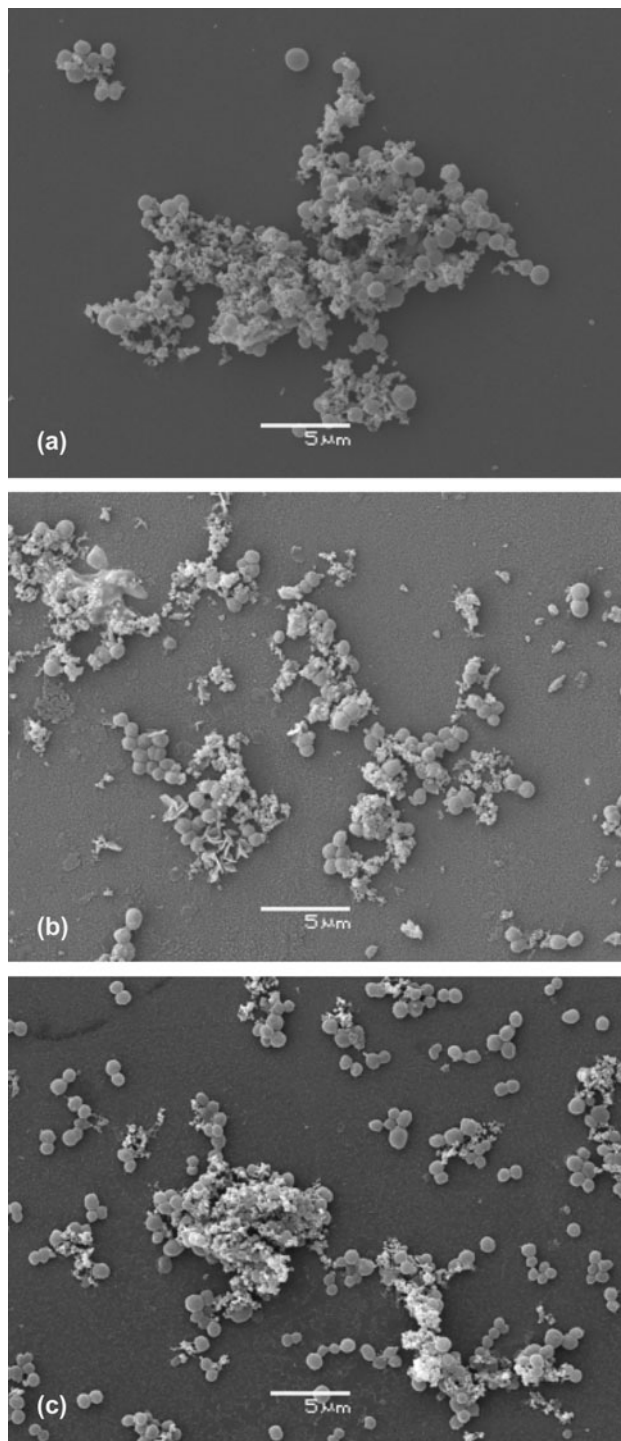


Figure S4. SEM images of biofilms of the marine bacterium *Acinetobacter* sp. AZ4C developed in light on (a) the control (glass substratum), (b) a ZnO nanorod sample I (5 mM) and (c) a ZnO nanorod sample II (10 mM).

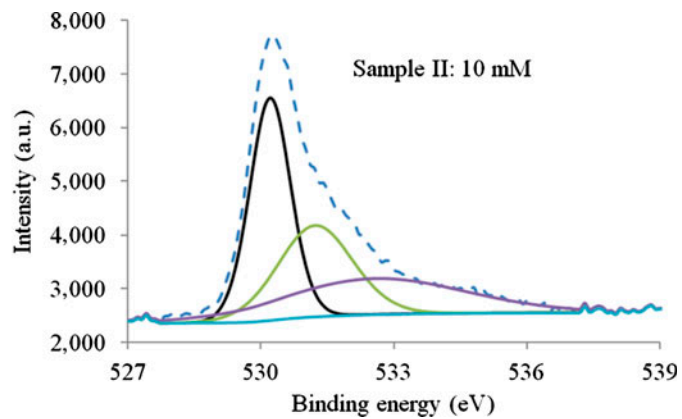
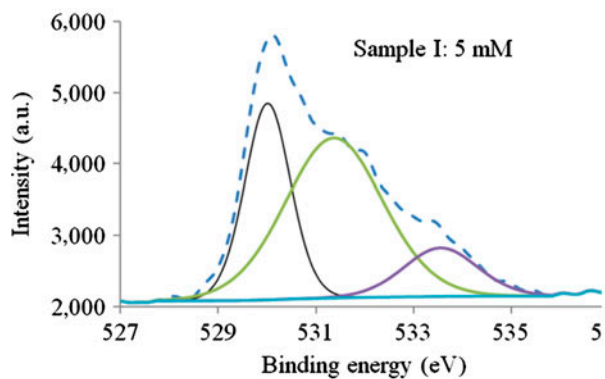


Figure S5. Deconvoluted graph of the O1s peak of ZnO nanorod coatings (samples I and II).