

# Strong Geometrical Dependence of the Absorption of Light in Arrays of Semiconductor Nanowires

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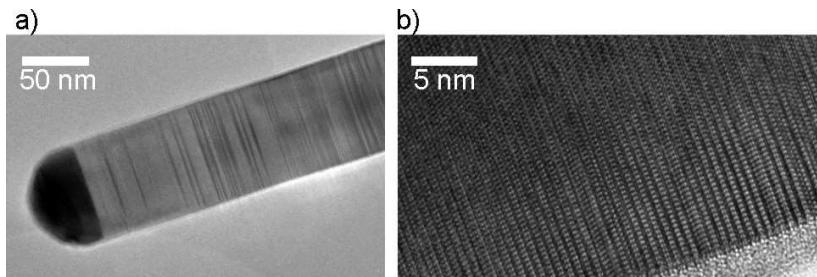
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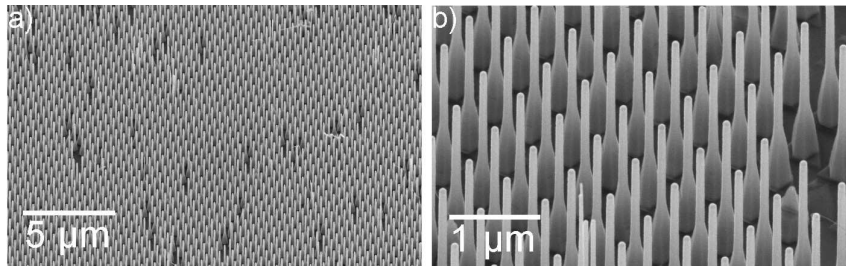
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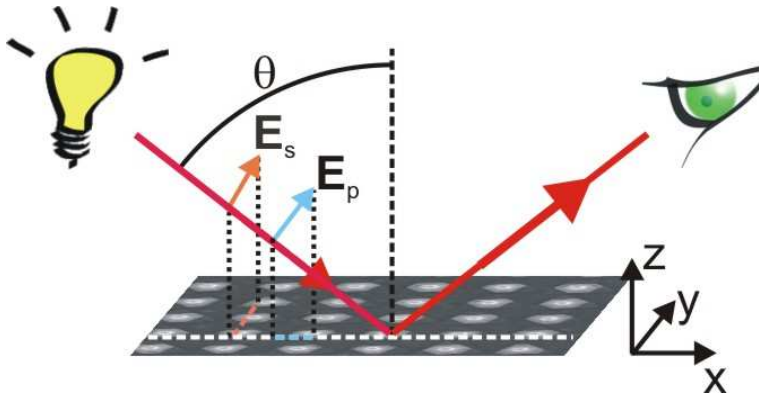
**Figures:**



**Figure S1.** Transmission electron micrographs of a single InP nanowire. a) Top part of the nanowire, including the gold catalyst particle. The alternating lines indicate the wurtzite structure with twin defects. b) High resolution TEM showing the wurtzite crystal structure with low defect density.



**Figure S2.** Scanning electron micrographs from the array of base-tapered nanowires with different magnifications. The SEM image in a) shows the good reproducibility of the pattern and it allows for the estimation of the defect percentage of the structure of 2.3 %. The SEM image in b) shows the geometry of the nanowires with a straight top part and a tapered base.



**Figure S3.** Schematic representation of the specular reflection measurement setup. The alignment of s- and p-polarized light with respect to the lattice is represented by the arrows. S-polarized light has only an electric field component along the y-direction, while p-polarized light has a component along the x-direction.