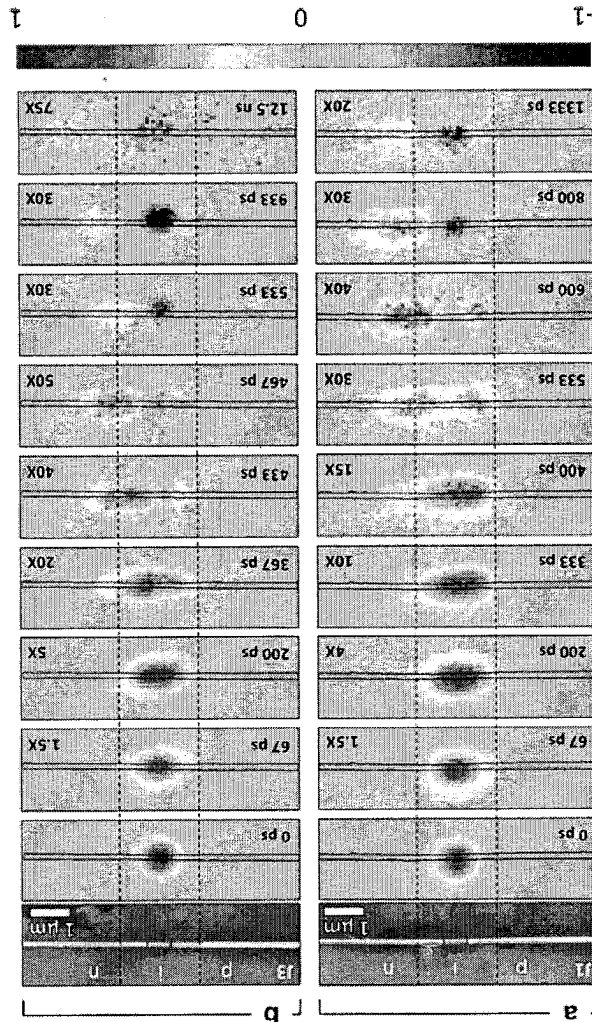
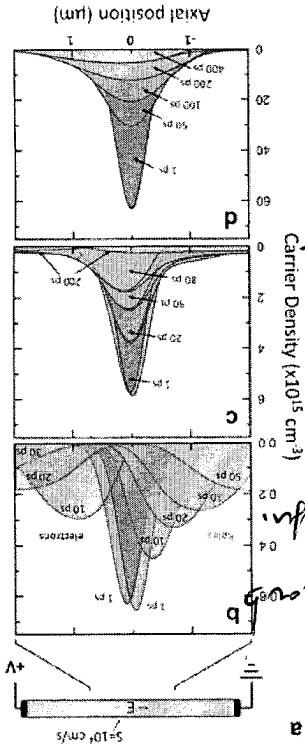
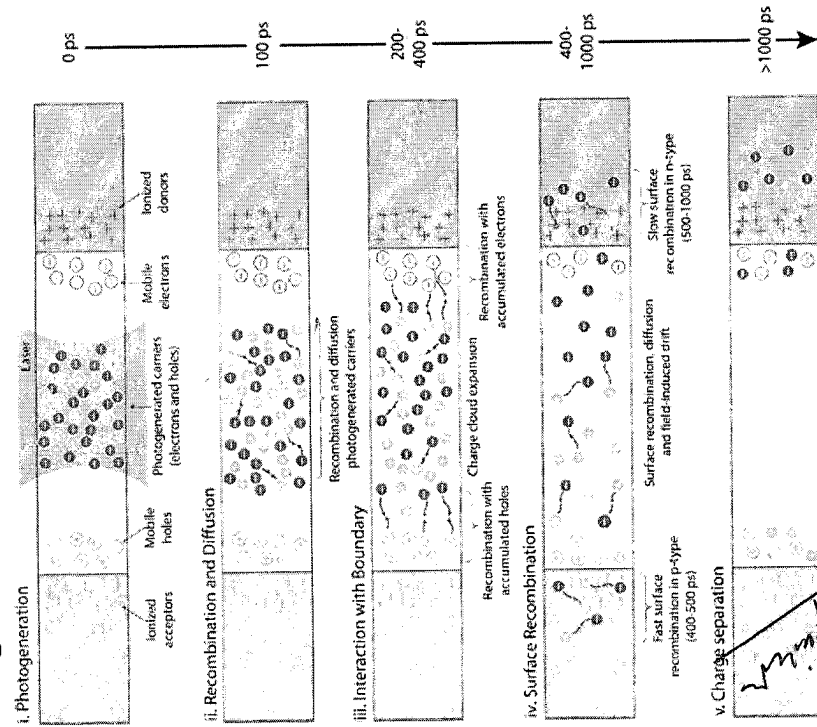


Figure 4. Finite element simulation of charge carrier evolution through a NW under applied bias (a) Diagram of the intrinsic NW (corresponding to an axial position of 0 μm) (b-d) Charge carrier distribution of carriers is generated at the center of the NW to induce an electric field with a magnitude of 10^6 V/m. A Gaussian μm long NW with 100 nm diameter. A bias is applied across the wire through a NW element simulation. Metal contacts are placed at the ends of a 10 μm long NW with 100 nm diameter. A bias is applied across the wire to induce an electric field with a magnitude of 10^6 V/m. A Gaussian distribution of carriers is generated at the center of the NW (corresponding to an axial position of 0 μm) (b-d) Charge carrier evolution along the wire axis under (b) low injection ($\sim 10^{15} \text{ cm}^{-3}$), (c) intermediate injection ($\sim 10^{16} \text{ cm}^{-3}$), and (d) high injection ($\sim 10^{17} \text{ cm}^{-3}$). Hole distributions are shaded in red and electron distributions in blue with shading getting lighter at longer times. Areas where the distributions overlap appear purple.



MEASURE

① Quantitative effect
② Structural effect
③ Bulk effect



Watermark