

MEASURE

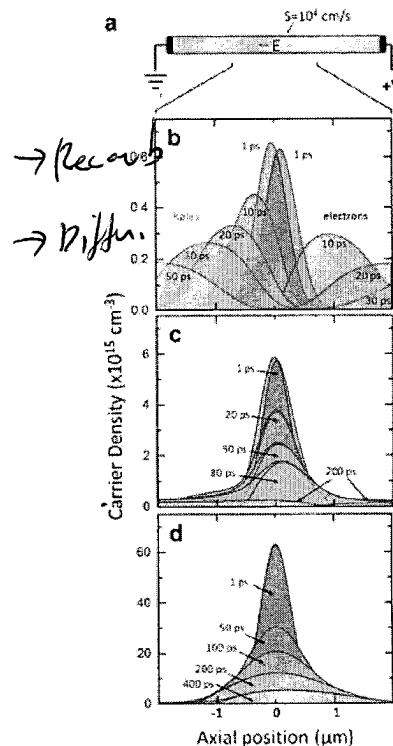
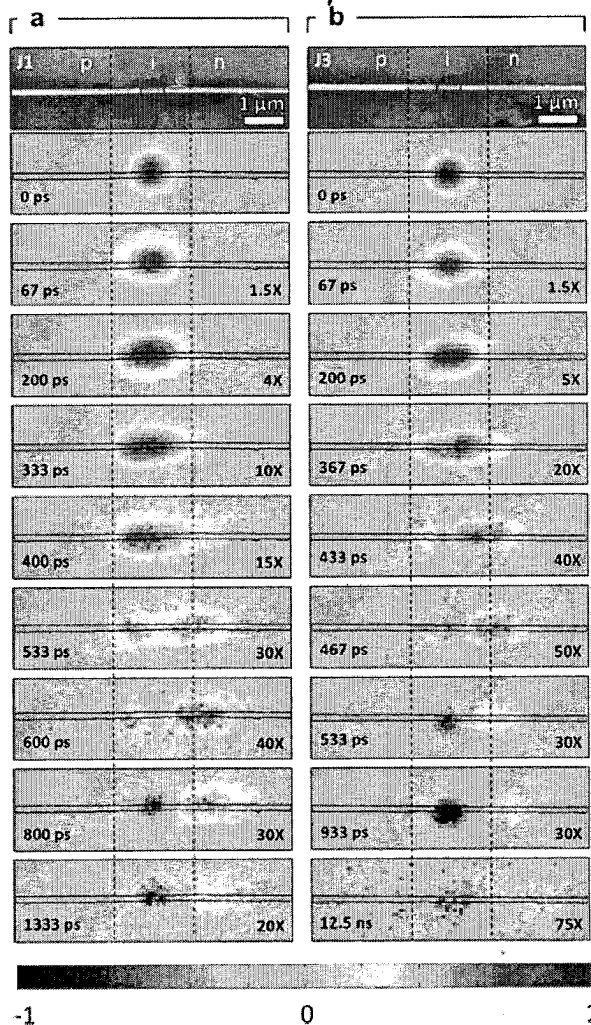
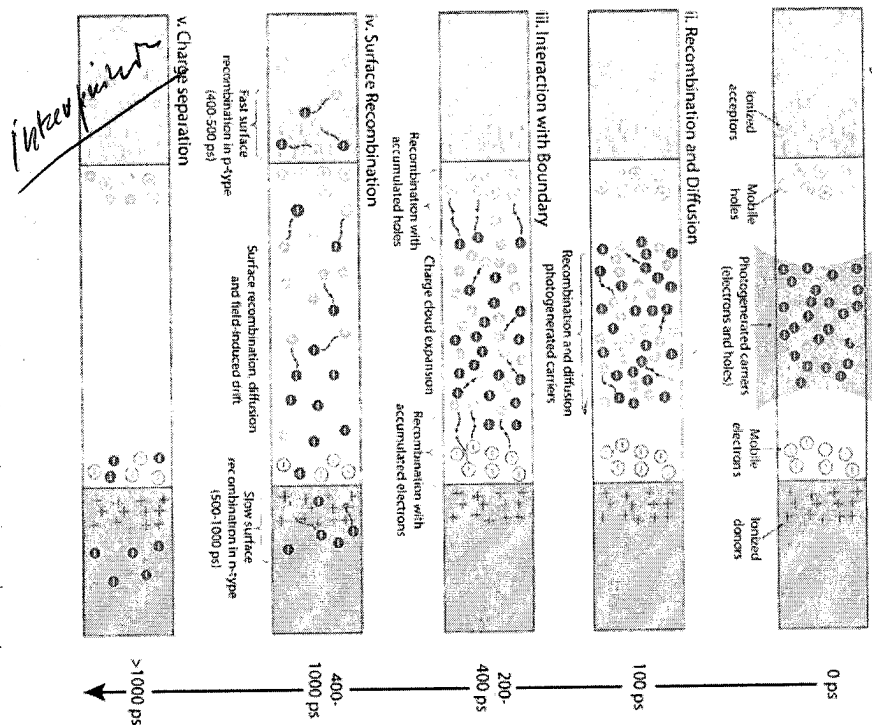


Figure 4. Finite element simulation of charge carrier evolution through a NW under applied bias. (a) Diagram of the intrinsic NW finite element simulation. Metal contacts are placed at the ends of a 10 μm long NW with 100 nm diameter. A bias is applied across the wire to induce an electric field with 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 ($\sim 10^{16}$ cm^{-3} electrons and holes), (c) intermediate injection ($\sim 10^{16}$ cm^{-3}), and (d) high injection ($\sim 10^{17}$ 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.



→ Sample
① Quantification

② Structural effects

→ Barrier interaction