

## Random access actuation of nanowire grid metamaterial

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The manuscript contains all information required to reproduce the results that it contains. Here, we make the full versions of the cropped scanning electron micrographs shown in the manuscript available.

**Fig2b.tif:** Nanoscale gold contacts and gold areas for testing and metadvice fabrication made by e-beam lithography. Light grey areas show 50-nm-thick gold, darker areas show the silicon frame (covered with 50 nm of silicon nitride) and almost black areas show the 50-nm-thick freestanding silicon nitride membrane.

**Fig3a.tif:** Scanning electron micrograph of the central membrane area with two contacted addressable reconfigurable nanomembrane metadvice and alignment marks for automated focused ion beam milling. A test pattern can be seen in the bottom right corner. Light grey areas show 50-nm-thick gold on 50-nm-thick silicon nitride, dark areas show the 50-nm-thick silicon nitride membrane, except in between the nanowires, where silicon nitride was also removed to separate the nanowires from each other.

**Fig3b.tif:** High-resolution image of the nanowire grid metamaterial nanostructure. The nanowire grid metamaterial nanostructure is identical to those shown in Fig3a.tif, however, the image was taken on a different membrane chip prior to separating the nanowire contacts. A focused ion beam dose test can be seen at the top of the image. Light grey areas show 50-nm-thick gold on 50-nm-thick silicon nitride, dark areas show the 50-nm-thick silicon nitride membrane, except in between the nanowires, where silicon nitride was also removed to separate the nanowires from each other.

**Fig4b.tif:** Scanning electron micrograph showing the nanostructure at a viewing angle of 50° from the normal with  $V_3=3$  V applied to nanowire 3 from the bottom. Light grey is gold, dark grey is silicon nitride, and black areas are fully cut through.

**Fig4c.tif:** Scanning electron micrograph showing the nanostructure at a viewing angle of 50° from the normal without voltage application. Light grey is gold, dark grey is silicon nitride, and black areas are fully cut through.

**Fig4d.tif:** Scanning electron micrograph showing the nanostructure at a viewing angle of 50° from the normal with  $V_5=3$  V applied to nanowire 5 from the bottom. Light grey is gold, dark grey is silicon nitride, and black areas are fully cut through.