Research data for

**Optical bistability in shape-memory nanowire metamaterial array**

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The corresponding manuscript contains all information required to reproduce the results that it contains. Here, we make the data shown in the manuscript available.

**Research data - Shape-memory photonic nanowire array.xlsx**

**Sheet Fig3:** Measured resistance of a 175-nm-thick NiTi control sample deposited on a SiO₂ substrate. The resistance measurement was performed by 4-probe measurement in a vacuum chamber. The probes were physically fixed on the sample with conductive adhesive agents to prevent their separation during the temperature cycle.

**Sheets Fig4...:** Deformation-dependent optical properties of the shape-memory nanowire array.

**(Sheet Fig4a)** Spectral dispersion of the difference between reflectivities of the nanostructure measured at 110 °C and 210 °C, relative to reflectivity at 210 °C. Column B and column C correspond to the heating and cooling parts of the hysteresis cycle, respectively.

**(Sheet Fig4a_inset)** Reference reflectivity spectrum at 210 °C.

**(Sheet Fig4b)** Difference between the sample reflectivity at temperatures T and 210 °C relative to the reflectivity level at 210 °C at a wavelength of 835 nm.

**(Sheet Fig4c)** Simulated out-of-plane deformation profile of a nanowire with trench cuts at each end for NiTi in the martensite phase and austenite phase states at a temperature of 110 °C.