Researchers' breakthrough in thermal transport could enable novel cooling strategies

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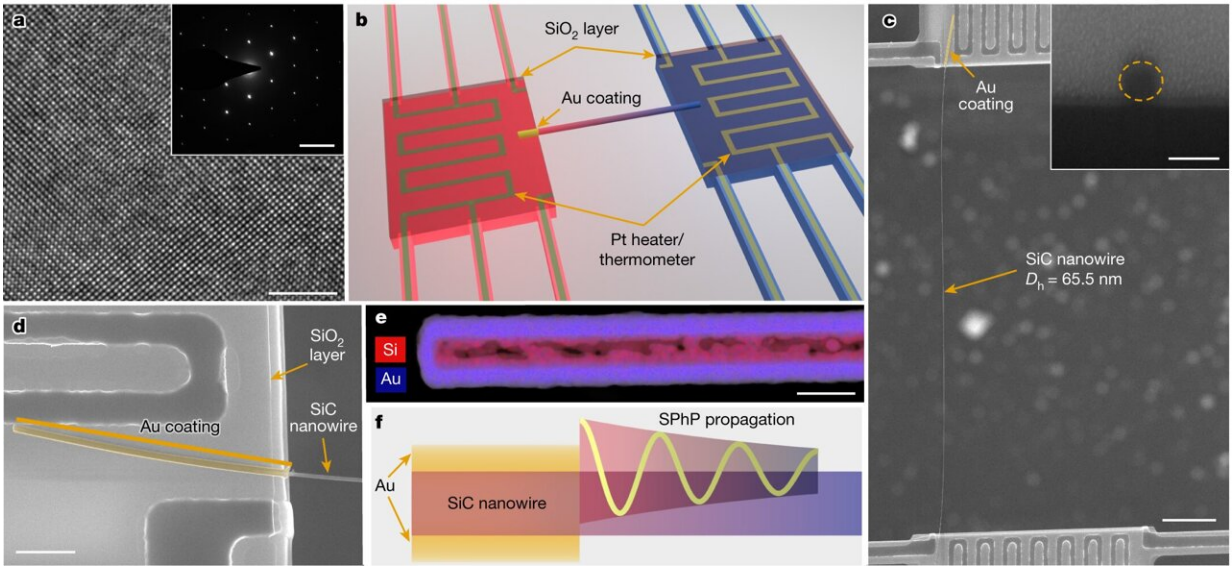

SiC nanowire sample and measurement scheme. **a**, A high-resolution transmission electron microscopy micrograph of a 65.5-nm diameter SiC nanowire (Sample S1). Inset, selected area electron diffraction pattern indicating the 3C-SiC structure. Scale bars, 5 nm, 5 nm^{-1} (inset). **b**, Schematic illustration of a SiC nanowire with Au coating on one side placed on the measurement device. **c**, An SEM micrograph of Sample S1 placed on the measurement device. Inset, cross-section of the wire. Scale bars, 5 μm, 100 nm (inset). **d**, A zoom-in SEM micrograph of the Au-coated end on the suspended membrane. For all measurements, the Au-coated portion protruded from the membrane for