

Figure 1. (a) Crystal structure of monolayer ReS₂ with schematic (bottom) and side view (top). (b) Schematic of an ReS₂ nanomechanical resonator. (c) Measurement set-up (electrical driving and optical detection).

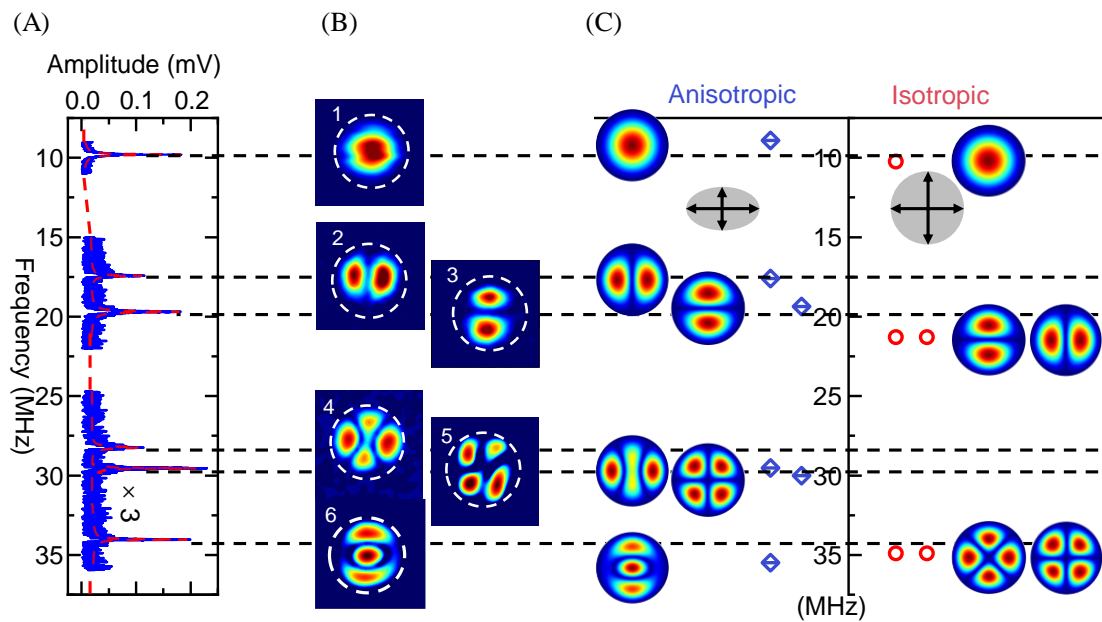


Figure 2. Mechanical anisotropy in a circular ReS₂ nanomechanical resonator determined by its spatially resolved multimode resonances. (A) The measured resonance frequencies of the circular device ($t = 106$ nm, $d = 10$ μ m) showing six modes with corresponding measured mode shapes in (B). (C) Comparison of the measured resonance frequencies (dashed lines) with simulation results from an anisotropic model (blue diamonds, calculated using $E_{Yx} = 191$ Gpa and $E_{Yy} = 134$ GPa) and an isotropic model (red circles, calculated using $E_Y = 191$ GPa). The simulated mode shapes and schematic of the E_Y values used are also shown for each model.

Reference

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