

Abstract Submitted  
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**Transport properties of suspended carbon nanotubes** HENK POSTMA, Caltech, HSIN-YING CHIU, MARC BOCKRATH — The study of suspended doubly clamped carbon nanotubes allows for the observation of many novel phenomena due to the intimate coupling of the mechanical and electrical degree of freedom, e.g. high frequency quantum limited displacement sensing, phonon adsorption and emission spectroscopy and quantized frequency tuning. We use a high frequency mixing technique originally developed by Sazonova et al. to monitor the high frequency properties of suspended carbon nanotubes. Our setup allows for measurements from DC up to 4 GHz from room temperature down to 300 mK.

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