

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Sensitivity Limits of Nanomechanical Resonance Spectroscopy¹

P. ALEX GREANEY, U.C. Berkeley — The sensitivity limit of the recently proposed chemical sensing method, nanomechanical resonance spectroscopy (NRS) ², is investigated using classical molecular dynamics simulations. The NRS method exploits the preferential transfer of energy between resonant modes, using an array of nanomechanical resonators to interrogate the vibrational spectrum of an analyte directly. We report on the effects of solvent and complex analytes.

¹We gratefully acknowledge funding from the National Science Foundation through the Center of Integrated Nanomechanical Systems under Grant No. 0425914.

²P.A. Greaney and J.C. Grossman, *Nano Letters*, **8**, 2648-2652, (2008).

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Date submitted: 20 Nov 2008

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