## Abstract Submitted for the MAR14 Meeting of The American Physical Society

Electric Field Effects on the Electronic Properties of Biaxial Strained Silicene RYAN STEIN, JIA-AN YAN, Towson University — A first-principles study of the electronic properties of biaxial strained silicene under various perpendicular electric fields are presented. Both compressed and tensile strains are considered. Interesting dependence of the electronic structure on the strain and the electric field will be presented. Effects of both strain and electric field on the electron-phonon coupling of silicene will also be discussed.

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Date submitted: 15 Nov 2013 Electronic form version 1.4