Abstract Submitted for the TSF13 Meeting of The American Physical Society

Properties of Gold Thin Films Sputtered on Glass¹ LINDSAY BECHTEL, CHRIS TANNER, ANDRA TRONCALLI, Physics Department, Austin College, MIKHAIL KOZLOV, Nanotech Institute, University of Texas at Dallas — When gold thin films have a thickness below 100 nm they begin to have different optical and electrical properties than bulk gold. In our project we deposited thin films of gold by sputtering onto glass. We made a set of 12 thin films ranging from 2 to 50 nm. These films were characterized through AFM measurements and transmittance spectroscopy. We will discuss the optical properties at various wavelengths for each film.

¹Work sponsored by the II-VI foundation.

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Date submitted: 03 Sep 2013

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