

Abstract Submitted  
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**Surface-enhanced Raman scattering of a hydrophilic ligand (tiopronin) adsorbed on gold nanoparticles.**<sup>1</sup> JOEL ST.AUBIN, Dalhousie University, KEVIN HEWITT, Dalhousie University — Surface enhancement of the Raman signal derived from tiopronin coated gold nanoparticles was observed. The gold nanoparticles were synthesized to mean diameters of 40 nm and 130 nm. Enhancement greater than 360 times was measured for the 40 nm gold nanoparticles and greater than 500 times for the 130 nm particles. New phonon modes appear that are possibly due to electric field gradient effects. Experiments to partially substitute tiopronin with a small fraction of hydrophobic thiols are underway. Surface-enhanced Raman scattering studies of these mixed (hydrophobic/hydrophilic) ligands will be reported.

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