## Abstract Submitted for the TSF15 Meeting of The American Physical Society

Analysis of Soils Using Laser-Induced Breakdown Spectroscopy BRIAN KO, Baylor University, DMITRI VORONINE, Baylor University, Texas AM University, JEREMY KUNZ, ZACHARY LIEGE, Baylor University, ALEXEI SOKOLOV, Baylor University, Texas AM University, MARLAN SCULLY, Baylor University, Texas AM University, Princeton University, SCULLY TEAM — Laser-induced breakdown spectroscopy is a useful technique in agriculture due to its ability to rapidly detect the elemental composition of the sample, such as soil. Using LIBS, qualitative analysis of elemental abundances and deficiencies can be quickly performed, increasing crop yields and reducing waste. In this experiment, soil samples enriched with different commercial fertilizers were analyzed using a picosecond laser system in order to detect changes in trace element concentrations.

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Date submitted: 09 Oct 2015 Electronic form version 1.4