Optogalvanic spectroscopy of lanthanum hyperfine structure\textsuperscript{1}

AMANDA NELSON, JESSIE HANKES, PATRICK BANNER, STEVEN OLMSCHENK, Denison University — Optogalvanic spectroscopy is a sensitive technique to measure optical transitions of atoms and ions produced in a high voltage discharge. Advantages of this technique include a comparatively simple optical setup and the ability to interrogate excited state transitions. Here, we use optogalvanic spectroscopy in a hollow cathode lamp to measure the hyperfine spectrum of several transitions in lanthanum. Hyperfine coefficients are determined for the corresponding energy levels and compared to available previous measurements.

\textsuperscript{1}This research is supported by the Army Research Office, Research Corporation for Science Advancement, and Denison University.