

Abstract Submitted
for the SES13 Meeting of
The American Physical Society

Chemical Abundances of Compact Planetary Nebulae in the Galactic Disk TING-HUI LEE, Western Kentucky University, RICHARD SHAW, LETIZIA STANGHELLINI, National Optical Astronomy Observatory — We present preliminary results from an optical spectroscopic survey of compact planetary nebulae (PNe) in the Galactic disk. This is an ongoing optical+infrared spectral survey of 150 compact PNe to build a complete database of PN chemical abundances in the Galactic disk. The optical spectra will be combined with *Spitzer* spectra of IR collisional lines to improve some abundance constraints. Our targets are mostly young PNe, which are well suited for studying the impact of metallicity and dust on PN morphology. Our main objectives are: (1) to constrain stellar evolution models and (2) to quantify the contribution of low- to intermediate-mass stars to chemical enrichment. We will also compare these findings to our optical+IR Magellanic Cloud PN abundances to better understand the influence of environment metallicity on stellar chemical yields.

Edward Kintzel
Western Kentucky University

Date submitted: 20 Sep 2013

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