

Abstract Submitted
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Metallicities of Low Mass Inefficient Star Forming Dwarfs in S4G: Testing the Closed Box Paradigm¹ MYLES MCKAY, South Carolina State University, SABRINA STIREWALT, University of Virginia, KARTIK SHETH, National Radio Astronomy Observatory, BONITA DE SWARDT, Square Kilometre Array South Africa, DONALD WALTER, South Carolina State University — Low mass dwarf galaxies are the most numerous extragalactic population in the Local Universe. Many gas-rich dwarfs appear to be forming stars less efficiently than normal, massive disk galaxies and are therefore important laboratories for the study of star formation. Here we present new observations using the Palomar Double Spectrograph for 19 dwarf galaxies from the S4G Survey with the lowest stellar to HI mass ratios. Preliminary analysis of the data indicate a wide range of metallicities which vary by as much as 0.5 dex in a single galaxy in different star forming regions. Such a dispersion in metallicities favors an open box model and the results suggest a varied star formation history, possibly induced via minor mergers and accretion.

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