

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 112 Hours
 Minimum Useful Time: 1 hr

Proposal Title: The Arecibo Galactic Chemistry Survey

ABSTRACT:

We propose using the new Mock spectrometers to make a 1-10 GHz molecular-line census of the galactic high-mass star-forming region W51. It is anticipated that among the discoveries of this unprecedented survey will be molecules considered pre-biotic. A search for the simplest amino acid, glycine, and small (previously undetected) PAHs will also be made. The presence of a multitude of recombination lines will aid interpretation of the data. The use of the Mock spectrometers will not only facilitate the commissioning/shake down of its single-pixel mode, but permit the deepest such line search yet made in the radio.

Name	Institution	E-mail	Phone	Student
Hector G. Arce	Yale University	hector.arce@yale.edu	(203) 432-3018	no

Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

L-wide C S-low X-high S-high C-high

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

This proposal requires Iridium RFI protection at 1612 MHz between 10pm and 6am EST.

This proposal requires coordination with Punta Salinas radar within the band 1222-1381 MHz..

This proposal requires coordination with GPS L3 at 1381 MHz.