

## Technical Page

Proposal Type: Regular  
 General Category: Astronomy  
 Sub-Category: Spectroscopy  
 Observation Category: Galactic  
 Total Time Requested: 106 Hours  
 Minimum Useful Time: 1 hour

**Proposal Title:** Extending the Arecibo Galactic Chemistry Survey to 770 MHz

**ABSTRACT:**

We plan to take advantage of the unique opportunity that will become available with the Digital TV transition and propose to extend the Arecibo Galactic Chemistry Survey (AGCS) to include the frequency window (705 to 825 MHz) that will soon open up. On February 2009 we proposed to conduct the first set of observations of the AGCS. That proposal aims to conduct an unbiased spectral survey from 1 to 10 GHz of the high-mass star formation region W51. Here we propose to observe two sources at the 770 MHz band: W51 (the first source we proposed to observe as part of the AGCS in February) and W49 (the second source we plan to include as part of the AGCS). It is anticipated that among the discoveries of this survey will be molecules considered pre-biotic. In addition, the presence of a multitude of recombination lines will aid interpretation of the data.

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### Remote Observing Request

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

### Instrument Setup

705-825

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

### RFI Considerations

## Frequency Ranges Planned