

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Extragalactic
 Total Time Requested: 96 Hours

Proposal Title: CH EMISSION IN GALAXIES

ABSTRACT:

ABSTRACT: CH emission in the Galaxy is found in almost every location where one searches. Extragalactic emission has been found in some fifteen nearby galaxies but only few of these detections have been published. Some of these were detected at Arecibo with the Mini-Gregorian. Considering the widespread occurrence of CH in the Galaxy and the detections of extragalactic emission resulting from weak maser action, we propose to confirm older detections and to continue our search for extragalactic CH in FIR sources that are known for their OH and H₂CO properties. The long-awaited arrival of the S-high system at Arecibo makes it possible to realize our plans. Significant CH detections would greatly enhance our ability to study the molecular component of the ISM of nearby galaxies using a third centimeter-wavelength spectral line. Since CH is a low-density tracers, it will complement the HI studies that are a routine tool for such studies.

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Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

S-low

Atmospheric Observation Instruments:

Description of Observer Equipment: !!!! S-high is required at 3.3 GHz

Special Equipment or setup: standard spectral line setup

RFI Considerations

Frequency Ranges Planned

3.2 -3.35