

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 30 Hours

Proposal Title: A survey of high-mass star forming regions in the 8GHz rotationally excited OH lines

ABSTRACT:

In 2003 our previous proposal A1762 (“A survey of high-mass star forming regions in the 8GHz rotationally excited OH lines”) was carried out in a trial sample of only three sources and resulted in two detections (W49N and K3-50). These are the first detections of the $^2\Pi_{1/2}$ $J = 3/2$ and $J = 5/2$ OH lines toward high-mass star forming regions other than W3(OH). We did not detect the 8207MHz satellite line, suggesting that this transition is probably not inverted or only very weakly inverted, which can already help in discriminating among environments with different physical conditions. We now propose to complete our original (i.e., in proposal A1722) list of sources to obtain a statistically significant sample, including all sources that have been previously observed in OH and are visible at Arecibo, still the only instrument which can be used to detect such faint lines in a reasonable observing time.

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Service Observing Request

Remote Observing Request

- | | | | |
|-------------------------------------|----------------------------|-------------------------------------|-------|
| <input checked="" type="checkbox"/> | None | <input type="checkbox"/> | No |
| <input type="checkbox"/> | All of the observing run. | <input checked="" type="checkbox"/> | Maybe |
| <input type="checkbox"/> | Part of the observing run. | <input type="checkbox"/> | Yes |
| <input type="checkbox"/> | Queue Observing | | |

Instrument Setup

X-high

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned