

Technical Page

Proposal Type: Short
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Galactic
 Total Time Requested: 1 Hours

Proposal Title: Shocked molecular gas in the supernova remnant W44

ABSTRACT:

The radio-bright supernova remnant W44 has been found to be interacting with a molecular cloud that surrounds it and from which its progenitor star likely formed. Evidence of molecular cloud interaction ranges from OH 1720 MHz masers to far-infrared fine-structure lines to central, thermal X-rays. The extent of the shocked molecular gas has been difficult to determine. Millimeter-wave CO observations clearly show broad lines, but only over limited angular extent and confused with unrelated foreground and background gas. The new observations proposed here will trace the shocked molecular gas using the OH molecule, which has been recently been shown to be a relatively "clean" tracer of molecular shocks.

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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

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1664-1668

1719-1721