Technical Page

This proposal has not been submitted before.

Proposal Type:	Regular
General Category:	Astronomy
Sub-Category:	Spectroscopy
Observation Category:	Galactic
Total Time Requested:	24 Hours
Minimum Useful Time:	10min

Proposal Title: Are there any red OH/IR star mimics?

ABSTRACT:

1612 MHz detection surveys of IRAS sources exhibit a strong dependence on the μm MIR color. This is likely due to many of them being in binary star systems, so instead of the stellar wind being a spherically-symmetric outflow it is entrained within a Roche lobe. The reddest sources are those most likely to have winds that overflow the Roche lobe, and so form circumstellar shells that are most similar to those from solitary stars. This proposal is primarily directed at making more sensitive than usual searches for 1612 MHz masers from the few remaining, extremely red sources, where 1612 MHz masers have not yet been detected. The working assumption is that they have a lower density wind overflow that is only capable of supporting a weak maser. A secondary objective is to complete a more sensitive search for masers in the last seven 3n type red sources.

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Remote Observing Request

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

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned