Proposal Identification No.: A1940 Date Received: 2004-Jul-16_18:19:21

Technical Page

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

Proposal Title: Formaldehyde Observations of MBM40

ABSTRACT:

We propose to map the 4830 MHz transition of formaldehyde (H2CO) along the densest ridge of the high-latitude cloud MBM 40 in order to probe the smaller length scales of the turbulent energy cascade in this object. Prior observations of CO and H I from this object have established the scales at which energy is injected internally into the cloud. This particular H2CO transition arises in higher density regions than the CO, and the handful of H2CO spectra obtained $\tilde{1}0$ years ago reveal the existence of very narrow lines ($\tilde{0}.2$ km/s). These are ideal conditions for probing the smaller scales of the turbulent cascade with the goal of possibly establishing the scale at which the energy dissipates.

Name	Institution	E-mail	Phone	Student
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Service Observing Request

- [X] None
- [ ] All of the observing run.
- [ ] Part of the observing run.
- [ ] Queue Observing

Remot e Observing Request

- [ ] No
- [X] Maybe
- [ ] Yes

Instrument Setup

C

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned