Proposal Identification No.: A2147 Date Received: 2005 -Sep-29_17:23:11

Technical Page

Proposal Type:	Regular
General Category:	Astronomy
Sub-Category:	Spectroscopy
Observation Category:	Galactic
Total Time Requested:	13.5 Hours

Proposal Title: HI 21 cm mapping of the Gem OB1 star-forming region

ABSTRACT:

We propose to map the H I 21 cm line over a field that encompasses the Gem OB1 association, a region of vigorous massive star formation. This area of sky has been studied extensively at other wavelengths, so that the stellar, molecular, ionized, and dust components are well-known. We want to exploit the new rapid mapping capability with ALFA to obtain a fully sampled map of H I over a 9 deg x 10 deg field at 3' resolution. The key question we are addressing in this proposal is, how does the atomic component of the ISM fit into the cycling of matter through H I - H2 - H II, energized by OB stars through their UV radiation, winds, and eventual supernova explosions?The Gem OB1 region is an excellent example in which to study these processes.

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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
- [ ] Maybe
- [X] Yes

Instrument Setup

ALFA

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned