



Observing Application

Date: Apr 5, 2007
 Proposal ID: VLA/07B-250
Legacy ID: AP529
 PI: Ylva Pihlstrom
 Type: Rapid Response
 Exploratory Time
 Category: Galactic
 Total time: 2.5 hour

Excited-OH masers in SNR/cloud collisions - IIa

Abstract:

In AP490 we were granted time to observe the excited-OH lines toward SNR/cloud collisions where the ground-state 1720 MHz maser was observed to be strong. At that time only the 6.0 GHz of the lower four excited-state OH rotational levels could not be observed by the VLA. We would like to take this opportunity to observe the 6.0 GHz line now in one of our objects, Sgr A East, to investigate the 6.0 GHz performance with a few antennas in this promising source. The recent prediction of 6.0 GHz maser lines (Wardle, 2007), critical in maser modeling, has strengthened our motivations. We are looking forward to observing this excited line, which was not observable with the VLA during AP490, toward the Galactic center. We plan to follow up the other sources in a regular proposal round, when more antennas are outfitted with these new C-band receivers.

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Related proposals:

AP490

Joint:

Not a Joint Proposal

Observing type(s):

Single Pointing(s), Spectroscopy, *

Resources:

Resource name	Tele. Conf.	Frontend & Backend	Set up
5cm1	VLA Any	C Band 6 cm 4500 - 5000 MHz VLA Correlator - Spectral Line	IF mode: 4 Bandwidth: 3.125 MHz Number of channels: 64 Spectral resolution: 48.828 kHz Rest frequencies: 6016,6030 MHz
5cm2	VLA Any	C Band 6 cm 4500 - 5000 MHz VLA Correlator - Spectral Line	IF mode: 4 Bandwidth: 3.125 MHz Number of channels: 64 Spectral resolution: 48.828 kHz Rest frequencies: 6035,6049 MHz

Sources:

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
Sgr A East	17:45:44.0 00:00:00.0	-29:00:30 00:00:00	J2000	90 km/s	

Sessions:

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
6ghz	2.5 hours	1	0 day	14:00:00	21:00:00	20

Session Constraints:

Session Name	Constraint	Comments
6ghz		

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
6ghz	Sgr A East/	5cm1	1.25 hour	15mJy/bm
6ghz	Sgr A East/	5cm2	1.25 hour	15mJy/bm

Total Time per Configuration:

Configuration	Total Time
Any	2.5