VSOP AO5 PROPOSAL COVER SHEETS

DEADLINE : 1 February, 2001
SEND TO : VSOG, ISAS, 3-1-1 Yoshinodai, Sagamihara, Kanagawa 229-8510, JAPAN

(1) Date prepared : 16 January 2001

(2) Proposal title : High sensitivity resolution of OH maser spots

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:

(5) Proposal Abstract :

We propose to conduct sensitive space-VLBI observations of three low scattered OH masers using world largest ground telescopes in conjunction with the HALCA. This will allow us to examine maser spots with full available resolution of space-ground interferometer in contrast to the previous study in which the resolution was limited by the low signal to noise ratio.

(6) Proposal Category (indicate all that apply):
Object type:
☐ AGN, ☑ Maser, ☐ Stellar, ☐ Pulsar, ☐ Other :
Observation type:
☐ Continuum, ☑ Spectral Line, ☐ Polarization, ☐ Time critical,
☐ Phase-reference, ☐ Other :

(7) Number of proposed experiments

An 'experiment' is one or more observations of one source at a fixed HALCA set-up. A request to observe the same source at 1.6 GHz and separately at 5 GHz requires two columns to be filled in in item (8) below. A request to observe the same source with HALCA simultaneously observing at 1.6 GHz and 5 GHz requires one column to be filled in. Multi-epoch observations of the same source at the same frequency – a 'monitoring experiment' – requires only one column to be filled in. Suggested observing dates, especially for for time-critical and monitoring experiments, should be specified in item (11).

The number of experiments in this proposal is:

(8) Details of proposed experiments

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Source name (J*hhmm*±*ddmm*)				
Alternative name	OH34.26+0.15	G45.47+0.13	W48	
RA(J2000) (hh mm ss.ssss)	18 53 18.6853	19 14 03.3607	19 01 45.5382	
Dec(J2000) (dd mm ss.sss)	+01 14 59.900	+11 12 19.646	+01 13 32.546	
Observing frequency band (GHz)	1.6	1.6	1.6	
Continuum observations:				
Standard VSOP freq. channels?	☐	☐	☐	☐
Channel A range (MHz)				
Channel B range (MHz)				
Spectral line observations:				
Ch.A spectral line rest freq. (MHz)	1665.4018	1665.4018	1665.4018	
Ch.A LSR velocity (km/s)	55.9	59.0	41.8	
Ch.B spectral line rest freq. (MHz)	1667.359	1667.359	1667.359	
Ch.B LSR velocity (km/s)	59.0	59.0	42.5	
FWHM of field of view required (mas)	2000	2000	2000	
Min. spectral channels per IF channel	1024	1024	1024	
Correlator averaging time (sec)				
No. of correlating passes (if >1)				
Total flux density (Jy)	50	25	40	
Correlated flux (mJy)	12000	10000	26000	
Ground Radio Telescopes:				
Suggested array given at Item (11)?	☑	☑	☑	☑
GRT observing mode:				
128Mbps LCP (standard)	☐	☐	☐	☐
128Mbps LCP/RCP	☑	☑	☑	☐
256Mbps LCP/RCP	☐	☐	☐	☐
Preferred correlator:				
No preference	☐	☐	☐	☐
Mitaka	☐	☐	☐	☐
Penticton	☑	☑	☑	☐
Socorro	☐	☐	☐	☐
Monitoring programs:				
Number of observations				
Mean interval (days)				
Related VSOP proposal code(s)	v103	v077	v103	

(9) VSOP spacecraft observing mode (see Section 3 and Table 2 of the VSOP Proposer's Guide):

☑ 2 channel x 16 MHz, 2-bit (Standard mode),

☐ Other:

Phase calibration tones:

☐ On (Standard continuum mode),

☑ Off (Standard spectral line mode)

(Include justification of any non-standard choice at (11) below)

(10) Assistance with preparation of ground telescope schedule files:

☐ VSOG assistance requested, ☑ Consultation desired, ☐ No assistance required

(11) Additional notes to the scheduler :

We request AR, EB, RO, TI, and phased VLA as a ground array for all experiments

(12) Attach a scientific and technical justification, not in excess of 2 pages of text and 2 pages of figures. Refer to the VSOP Announcement of Opportunity for detailed instructions. Preprints and reprints will not be forwarded to the Scientific Review Committee.

EITHER e-mail the completed LaTeX file to submit@vsop.isas.ac.jp and send two paper copies of the complete proposal to:

VSOP Observing Proposals
VSOP Science Operations Group
Institute of Space and Astronautical Science
3-1-1 Yoshinodai, Sagamihara
Kanagawa 229-8510 JAPAN

OR e-mail the completed LaTeX Cover Sheets file and, in a separate e-mail, the postscript file of the scientific and technical justification, to submit@vsop.isas.ac.jp

Information from the Cover Sheets of scheduled proposals will be made available from the VSOP WWW site.

Proposals must be received at ISAS by 1 February 2001