

## Technical Page

Proposal Type: Regular  
 General Category: Astronomy  
 Sub-Category: Extragalactic  
 Sub-Category: Extragalactic  
 Observation Category:  
 Total Time Requested: 150 Hours

**Proposal Title:** A Targeted Search for OH Megamasers at  $0.1 < z < 0.45$

**ABSTRACT:**

We propose to complete a targeted search for OH megamasers in the redshift range  $0.1 < z < 0.45$ . We request a total allotment of 150 hours in two or three installments to use the L-wide Gregorian receiver to search for the redshifted 1665.4 and 1667.4 MHz lines of OH megamasers in the range  $RA < 16$  h and  $RA > 21$  h. We expect to discover at least 20 (and perhaps as many as 50) OH megamasers in this survey, based on exploratory work in which 7 new OH megamasers and 1 OH absorber were discovered. This search would increase the number of known OH megamasers by 50-100% and at least triple the number known at  $z > 0.1$ . This low-redshift survey work will be useful for calibrating high-redshift targeted and blind OH megamaser surveys to be done at Arecibo or the GMRT to measure the merger rate of galaxies as a function of redshift.

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I NA want to do remote observing.

**Instrument Setup**

L-wide

**Atmospheric Optical Instruments:**

**Special Equipment or setup:** none

**RFI Considerations**

**Frequency Ranges Planned**

not given