

B09b Preliminary Results from the VLBA OH Maser Survey for Space-VLBI Observations

Horiuchi, S.(NAO, JST)、Migenes, V.(Univ. of Guanajuato)、Slysh, S.、Val'tts, I. E.(Astro Space Center)、Altumin, V. I.(JPL)、Edwards, P. G.(ISAS)、Fomalont, E.(NRAO)、Inoue, M.(NAO)

The VLBI Space Observatory Programme (VSOP) satellite, "HALCA", has been used successfully with ground telescopes over the past 2.5 years to produce images of active galaxies and maser sources with unprecedented resolution at frequencies of 1.6 and 5 GHz (LCP pol). However, because of the ultra-high spatial resolution and the sensitivity limitations from the space baselines only sources which are very strong and compact will be detected. As a result a number of continuum and maser surveys, with the longest possible earth baselines, have been undertaken in order to observe a large number of sources and determine their potential for Space-VLBI observations.

OH masers can greatly be resolved with inter-continental baselines while H₂O masers are much more compact. Due to satellite problems H₂O observations will not be performed as planned. We present preliminary results of the VLBA OH Maser survey, conducted on July/1998, to determine a suitable list of candidates. OH maser sources from star forming regions, HII regions and late-type stars have been observed at 1665, 1667, 1720 and 1612 MHz in dual polarization mode and high spectral resolution. The selection criteria for our target list was based on a flux greater than 30 Jy (from interferometric observations) and that the source had shown some degree of compactness from previous VLBI or VLA observations. Over 60 sources were observed, in 6 minute scans, and many are too resolved for Space-VLBI observations but there are some interesting candidates.