

**OBSERVATIONS OF WEAK GALACTIC OH MASERS IN  
1.6GHZ FREQUENCY BAND USING IRBENE RT32  
RADIO TELESCOPE**

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Ventspils International Radio Astronomy Centre (Ventspils University of Applied Sciences) is implementing the scientific project “Complex investigations of the small bodies in the Solar system” (Izp-2018/1-0401) related to the research of the small bodies in the Solar system (mainly, focusing on asteroids and comets) using methods of radio astronomy and signal processing. One of the research activities is weak hydroxyl (OH) radical observation in the radio range - single antenna observations using Irbene RT-32 radio telescope. To detect weak (0.1 Jy) OH masers of astronomical objects using radio methods, a research group in Ventspils adapted the Irbene RT-32 radio telescope working at 1665.402 and 1667.359 MHz frequencies. Novel data processing methods were used to acquire weak signals. Spectral analysis using Fourier transform and continuous wavelet transform were applied to radio astronomical data from multiple observations related to weak OH maser detection. Multiple observation sessions of OH maser objects (R Lmi, RU Ari, IRAS 00428+6854, OH 138.0+7.2, etc) were carried out in 2020-2021.