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LINEAR POLARIZATION OF THE WATER MASER IN ORION

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ABSTRACT. The degree of linear polarization and the polarization angle of the 8 km/s water maser source in Orion was measured with the Itapetinga radiotelescope during the period 1979-1984. The source studied is strongly variable and had an outburst in October 1979, becoming the strongest water source in the sky. The maser has a large degree of linear polarization that remained almost constant and independent of the intensity of the source, indicating that the maser is saturated. The polarization angle changed in a quasi-periodical form between 3^{o} and 34^{o}, implying that either the direction of the magnetic field or the emitting region is changing.

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