A SURVEY OF LARGE MOLECULES TOWARD THE PROTOPLANETARY NEBULA CRL 618

ANTHONY J. REMIJAN, *NASA Goddard Space Flight Center, Computational and Information Sciences and Technology Office, Code 606, Greenbelt, MD 20771*; FRIEDRICH WYROWSKI, *Max-Planck-Institut für Radioastronomie, Auf dem Hügel 69, D-53121 Bonn, Germany*; D. N. FRIEDEL, D. S. MEIER, L. E. SNYDER, *Department of Astronomy, University of Illinois, Urbana, IL 61801.*

We present the results of our survey toward the protoplanetary nebula CRL 618 for several large, highly saturated, oxygen bearing organic molecules of biological importance including acetaldehyde (CH_3CHO), acetic acid (CH_3COOH), dimethyl ether (CH_3OCH_3), ethanol (CH_3CH_2OH), formic acid (HCOOH) and methyl formate ($HCOOCH_3$); large carbon chain molecules including methyl cyanide (CH_3CN), methylcyanoacetylene (CH_3C_3N), cyanoacetylene (HC_3N), cyanodiacetylene (HC_5N), and C_6H; and finally smaller molecules including ^{34}SO, SO_2, $OC^{34}S$ and MgNC. No biologically important organic molecules were detected. However, we report the first interferometric detections of CH_3CN and vibrationally excited HC_3N and HC_5N toward this source. Also, we compare the upper limits of the column densities of the molecular species that were not detected to the predicted column densities based on gas phase formation models.