

SIO EMISSION FROM THE INNER PC OF SGR A*

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A critical question regarding star formation near supermassive black holes (SMBHs) is whether tidal shear completely suppresses star formation or whether it induces star formation. The circumnuclear molecular ring orbiting the 4 million solar mass black hole Sgr A* in the inner few parsecs of the Galactic center is an excellent testing ground to study star formation in extreme tidal environments. We have carried out ALMA observations of SiO (5-4) line emission to resolve protostellar outflow candidates in the molecular ring and its interior. We will describe preliminary results of these observations. In addition, we will present ALMA and VLA observations of continuum sources that show bow-shock structures. The characteristics of these mm sources suggest the presence of protoplanetary disks. These continuum measurements suggest on-going low-mass star formation with the implication that gas clouds can survive near the strong tidal and radiation fields of the Galactic center.