

onto the star is reduced, we think that most of the remaining gas evaporates into space in a process called photoevaporation,” says Pascucci. As extreme ultraviolet and X-ray light heat the gas in the disk, the gas molecules become increasingly energetic. With enough energy, gravity from the star and the disk will no longer be strong enough to hold on to the heated gas – allowing it to float off into space, or photoevaporate. Scientists suspect that if too much gas evaporates too quickly, gas giant planets may not be able to form. According to Pascucci, gas around a young star may also play a crucial role in making planets suitable for life. The gas may help to circularize the orbits of planets as they form, as well as create atmospheres for rocky Earthlike and gas giant planets alike. Both the orbit of a planet and its atmosphere play an important role in stabilizing its climate, and perhaps in determining whether or not complex life can form and survive. The detection of ionized neon was discovered in data obtained from two Spitzer Legacy Program teams: From Molecular Cores to Planet Forming Disks (c2d) and The Formation and Evolution of Planetary Systems (FEPS); and one Guaranteed Time Observing program