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Early X-ray Observation of FUor Outbursts COLEMAN GRISHMAN, DAVID POOLEY, Trinity University — In the early stages of formation, a proto-star gains mass through the accretion of material from its surroundings. A phenomena known as a FUor outburst is observed in some young stars, in which the accretion rate of the star exceeds the accretion rate of all other known star forming objects. The rate can increase by a factor of 10-100 from the original, but the mechanism behind why this occurs is still unclear. The event could play a large role in setting the conditions for planet formation, bringing cause for further analysis. X-ray and optical-IR observations during the burst could be key in understanding these events, but until recently the initial outburst phase had been unobserved in X-rays. Reduction and analysis of Chandra X-ray Observatory data from three different FUor objects is presented. The X-ray spectra are fit with a hot plasma model that takes into account the absorption of photons by intervening gas. We have discovered evidence of an emission line from iron on one of the FUors; the origin of the iron emission is unclear but may lead towards a better fitting understanding of FUor behavior.

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