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The Formation and Evolution of Solar Systems LORI BEERMAN, MICHAEL SITKO, University of Cincinnati, DEPARTMENT OF PHYSICS TEAM — It is not known whether all solar systems form in a similar manner, or even from the same ingredients. By viewing other solar systems within our galaxy that are still in their infancy, we can better understand where we came from as well as the possibility that we may not be alone in the universe. We have chosen to observe a number of "baby" solar systems and analyze their mechanics and chemistry in order to make these correlations. After spectroscopic analysis, we have found that it is likely that the planet formation process has already begun in at least one of the the disks. Furthermore, the silicate and carbon-rich composition of this disk is comparable to the composition of our early solar system, which provides evidence that solar systems that are forming today are doing so in a similar manner to ours, and the precursors to life are common in the universe.

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