Beta Pictoris Debris Disk is Not a Proto-planetary Disk

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Abstract: The debris disk around the star Beta Pictoris is not a proto-planetary disk but of the result of a collision of two or more aging stars as a result of the formation of the Proto-star Beta Pictoris.

Beta Pictoris is shown to possess a large debris disk which glows in the infared. [1] It has been hypothesized that this debris disk is not evidence for the formation of new stars/exoplanets [2] but of the formation of smaller moons caused by the collision of older stars taking up new orbits around the proto-star Beta Pictoris, which is a very young star. [3] These will stabilize and become round and undifferentiated similar to the moon Callisto [4], or the many other arrangements of moons around Saturn or Jupiter and smaller objects such as Ceres. This would also explain why they do not possess iron cores but are mostly volatiles such as water, ammonia, methane and sulfur dioxide which have a relatively low equilibrium condensation as opposed to refractory elements and molecules which have a much higher boiling point, and play a large part in the differentiation process. [5]

References

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