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Hints of binary-enhanced dust production for AGB stars

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Asymptotic Giant Branch (AGB) stars are known as key sites of dust production in the Galaxy. Most Sun-like stars with masses in the range 0.8 to 8 M_{\odot} will pass through the AGB phase, during which they will lose a substantial amount of material. This mass loss is powered by radiation pressure through a pulsation-enhanced dust-driven wind. I will present new high angular resolution observations of continuum emission taken with the ALMA telescope. These data show that binary companions to AGB stars also drive dust formation and, in some circumstances, could even increase mass-loss rates and hence alter the duration of the AGB phase. A shorter or longer AGB phase has ramifications for nucleosynthetic yields and the chemical enrichment these stars contribute to the interstellar medium

Author:DANILOVICH, Taissa (Monash University)Presenter:DANILOVICH, Taissa (Monash University)Session Classification:Stars