

The intense production of silicates during the final phases of intermediate-mass AGB stars

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Silicate dust grains are an important player in the cosmic life cycle of matter and have been detected in a wide variety of environments. Although the intermediate mass stars are regarded as the most efficient manufacturers of silicates in the Universe, the formation process of this dust species in their winds is still highly debated. In this talk I will present our study on a sample of galactic, heavily obscured AGB stars of intermediate mass, with the scope of assessing the efficiency of the dust formation mechanism in the circumstellar envelope of this class of objects and the amount of silicates that they release into the interstellar medium during their lifetime. The issues regarding the reliability of the predictions on the silicate yields from intermediate mass stars will also be discussed.

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Session Classification: Seeds and grains: AGB stars as dust factories in galaxies