

Dust production scenarios in galaxies at $z \sim 6-8.3$ (Aleksandra Leśniewska)

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Dust production is a very important issue in galaxy evolution. Unfortunately, we are still unable to determine its formation mechanism. I will present the investigation of dust production in nine galaxies at redshift $z > 6$, for which dust emission has been detected. In recent years, more accurate measurements were made using the most powerful instruments, eg ALMA, which contributed to better estimates of luminosities and sizes, and thus to determine the masses of gas, dust and stars in the studied galaxies. We conclude that asymptotic giant branch (AGB) stars did not contribute to the dust formation significantly in these Early Universe galaxies, and that supernovae are unlikely to produce the bulk of the dust mass. I will discuss how the advent of future large telescopes will contribute to this topic.

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