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Explore the evolution of major mergers from ultraviolet and infrared data

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Major mergers play a very important role in galaxy evolution. The effect of mergers on the morphology, metallicity and star formation in galaxies is still debated. Based on GALEX DR6 images, we explored the UV emission for local major mergers and their control samples from Xu et al (2010). Using the FIR and UV data, we present a statistical study of dust extinction in major mergers for the first time, and we also investigated the specific star formation rate (SSFR) indicated both by IR and UV parts. We find that the dust attenuation of galaxies in pair is not significantly different from that in control sample, but the more massive spirals in S-S pair have a apparently larger mean A_{FUV}. We also find that the SSFRs of galaxies in pair are significantly enhanced compared with single galaxies. Our result basically confirms the conclusion given by Xu et al. (2010). Since they only considered the infrared emissions, our study completes the local benchmark of major mergers they set with UV bands. We also investigated the star formation locations in pair and control samples.