X39a **ALMA imaging survey for $z \gtrsim 4-5$ 1100-μm-selected galaxy candidates**

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We present the initial result of ALMA 1100-μm imaging of 30 Herschel/VLA-faint AzTEC sources in the SXDF/UDS carried out in ALMA cycle-1. We selected 30 AzTEC sources among 281 AzTEC sources by using deep VLA 21 cm, and Herschel 100-500-μm data, aiming to reveal the nature of these 'submm-radio-faint' 1100-μm-selected galaxies which are expected to be dusty starburst galaxies at $z \gtrsim 4$. The resultant ALMA images achieve a sensitivity of 70-88 μJy/beam, $\gtrsim$6 times better than that of the AzTEC/ASTE observation, and achieve a synthesized beam size of $0''.4$-$0''.7$ (FWHM), $\gtrsim$2000 times better than that of AzTEC/ASTE map. We find 35 ALMA continuum sources ($\geq 5\sigma$; $L_{\rm IR}$ =0.4-3.5$\times 10^{12}$ $L_\odot$) in total, and 25/30 (=83%) of the 'submm-radio-faint' AzTEC sources have at least one significant ALMA continuum source. Deep Optical /Near and Mid infrared data indicate that at least 13/35 (=37%) can be located at $z \gtrsim$4-5. The baseline lengths of our ALMA data range up to 1200 kλ for 10 AzTEC sources (and up to 400 kλ for remaining 20 sources). We find that all of the 16 bright ALMA/AzTEC sources with $\geq$ 1 mJy and ≥ 10 σ detection are resolved, and the median size is ($0''.2$, FWHM). These can be progenitors of the most massive galaxies in the local Universe.