

## X08b The updated measurements of [OIII] 88 $\mu\text{m}$ and [CII] 158 $\mu\text{m}$ emission from a $z = 7.212$ galaxy

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We updated the measurements of [OIII] 88  $\mu\text{m}$  and [CII] 158  $\mu\text{m}$  emission from a  $z = 7.212$  galaxy, SXDF-NB1006-2. After combining ALMA Cycle 2 and Cycle 3 datasets of [OIII] emission, we obtained  $5.8\sigma$  detection. After combining ALMA Cycle 1, Cycle 3, and Cycle 7 [CII] observations, we eventually obtained [CII] detection covering  $3.3\sigma - 4.5\sigma$ . We considered the Surface Brightness Dimming (SBD) effect and recovered the total [CII] flux by using the SBD correction factor estimated by Carniani et al. (2020). The obtained [OIII]/[CII] luminosity ratio is  $6.2 \pm 2.7$  and  $12.2 \pm 7.3$  in terms of  $4.5\sigma$  and  $3.3\sigma$  [CII] detection, respectively, which is consistent with the local dwarf galaxies and simulations within the large uncertainty. Besides, we compared the  $L_{[\text{CII}]} / \text{SFR}$  ratio with that of local HII/starburst galaxies,  $4 < z < 6$  star-forming galaxies from ALPINE survey, and  $6 < z < 9$  galaxies with modified [CII] detection and corrected for the SBD effect. As a result, whether corrected for the SBD effect or not, none of our results is consistent with the samples mentioned above. This may indicate the non-universality of the [CII]/SFR relation, but it is also possibly due to an overestimation of *SFR* obtained by SED fitting, and we expect the future observation of JWST could solve this problem.