

FIR spectroscopic signatures of young galaxies

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ISO has enabled us to study FIR spectra of a large variety of galaxies. The properties of actively star-forming galaxies are fairly different from those of metal-poor irregular galaxies. This contrast is seen most dramatically in the strength of the [CII] line: metal-poor, irregular galaxies show stronger than average [CII] but actively star-forming galaxies show [CII] deficiency (Malhotra 1997). Young galaxies are expected to be both metal-poor and actively star-forming, leading to contradictory expectations of the [CII] strength. Other FIR lines can also be used to find/confirm metal-poor starbursts. Using our observations of normal $z=0$ galaxies and reasonable expectations of high-redshift starbursts, we try to predict the spectral signatures of primitive, high-redshift galaxies.