

30 Years of Photodissociation Regions:

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The origin of the [C II] line in the Milky Way

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I will review our current understanding of [C II] emission from the interstellar medium (ISM) in the Milky Way. The [C II] line traces different phases of the ISM, including the diffuse ionized medium, warm and cold atomic clouds, clouds in transition from atomic to molecular, and dense and warm photon dominated regions (PDRs). I will discuss how understanding the relative importance of the different phases of the interstellar medium to the [C II] emission locally is an important tool for interpreting unresolved observations of [C II] emission in distant galaxies. I will also summarize future prospects to observe [C II] in the Milky Way that will advance our understanding of the [C II] emission from different phases of the interstellar medium.