THE DISTRIBUTION OF SOME LARGE MOLECULES IN PDR'S

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We have previously used our chemical mode to study the formation of molecules, such as long carbon-chains and cyanopolyynes, in dense Photon-dominated regions (PDR's), which are surface layers of interstellar molecular clouds exposed to intense fluxes of far-ultraviolet photons that completely dominate the physical and chemical evolution of the gas. A somewhat surprising result is that some of these molecules are particularly abundant in the layers more affected by the radiation. We present results for other big molecules for different conditions of the density and the far-ultraviolet radiation field, in order to ascertain how the external radiation field determines the distribution of their abundances along the line of sight and if, against what could be expected, their abundaces are also enhanced by the photoreactions.