30 Years of Photodissociation Regions:
A symposium to honor David Hollenbach's lifetime in science
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INVITED TALK

PDR observations: from Herschel to SOFIA

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The past decade has brought substantial progress in observationally constraining our understanding of PDRs. This is largely due to the rapid progress in instrumentation technology that became available with Herschel and recently with SOFIA. Of major importance is the fact, that these observatories, for the first time, allow velocity resolved observations of the bright PDR-characteristic line emission in the FIR-fine structure lines [CII] 158 μm and [OI] 63 μm, as well as several other, previously not observationally accessible, molecular lines. In addition, the possibility of extended line mapping in the FIR that these observatories provide, has given new insight by allowing details comparision of the line ratios and their spatial variation.

This talk will summarize the key progress in several areas, that was thus achieved, which has provided us with much better constraints on the physical processes relevant in PDRs. It will also address some of the unexpected results, that challenge our understanding of PDRs.

REFERENCES