

SURFACE CHEMISTRY UPDATE OF THE KOSMA- τ PDR CODE

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Numerical PDR codes are commonly limited to a pure gas-phase chemistry, with the exception of the Formation of H₂. For most species this is reasonably well assumption given the usual physical conditions in photodominated regions. However, for some species, such as H₂O, O₂, or CH₃OH, the pure gas-phase computation is insufficient.

We present a recent update of the chemistry included in the Cologne PDR code KOSMA- τ , where we included a network of grain surface reactions into our chemical computation scheme.