

The chemistry of hot exoplanet atmospheres

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Exoplanet atmospheres that can be probed by current observations are extremely different from atmospheres in the solar system: they are hot, highly irradiated and their characterization is based on scarce low-res low-S/R data. In these hot atmospheres, dynamics, heating/cooling and chemistry all occur with comparable timescales making their modeling extremely challenging. Robust chemical calculations can be performed in the range of P,T of hot atmospheres but modeling the full interplay with UV photolyses, radiative transfer and dynamics is still beyond the state-of-the-art. We will present possible ways to handle these interplays for hot Jupiters and hot Neptunes.