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Ultraviolet Spectral Analysis of JWST Planet Host Targets

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Obtaining ultraviolet (UV) spectra for all JWST planet host targets is essential to enhancing our comprehension of exoplanetary atmospheres. During analysis, we extract emission line flux data from Hubble Space Telescope observations, focusing on prominent far ultraviolet (FUV) lines such as Carbon IV and Silicon II. These emissions influence the chemical composition, thermal structure, and overall dynamics of planetary atmospheres. The measurements serve as indicators of FUV radiation emitted by host stars, allowing us to investigate its potential impacts on the atmospheres of orbiting exoplanets. Further in our analysis, we combine these UV spectra with X-ray data to estimate details on the stellar corona and stellar activity.