

Possibility of observing helium corona with a new type new type helium absorption cell

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A new type absorption cell is proposed. This absorption cell utilizes Zeeman (Stark) effect of helium 4 and helium 3. The emission line measured by the absorption cell is the Helium 1083 nm triplet line. Since helium is abundant in planetary atmosphere and interstellar space, we can apply this method to the observation of planetary exospheric corona and interstellar helium. We will present the principle of the proposed cell and theoretical SNR and discuss its applications to spacecraft observation.

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