Physics of the Interstellar Medium

U. Klein, J. Kerp

Exercises I

In–Class Exercises

1   The Hydrogen atom

- Calculate the reduced mass of the hydrogen atom.

- Calculate the Rydberg constant of the hydrogen atom.

- Calculate the energy and wavelength of the Hα line.

2   Deuterium

- What is the reduced mass μ of deuterium?

- What is the wavelength of the Dβ line?

- Under what conditions can it be detected?