

## Spectroscopic study of non-stoichiometric pyroxenes

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We present the compositional dependence of the absorption spectra of crystalline pyroxenes. The absorption peaks shifted to longer wavelength as the amount of Fe increasing. Since the intensities and the width of absorption bands are very sensitive to the composition, we can use the spectral profiles as a diagnostics to decide the chemical composition of the circumstellar dust.

We present the compositional dependence of the absorption spectra of non-stoichiometric crystalline clino-pyroxenes of which the chemical composition is lying in a wide range from En40 to En90. The absorption peaks shifted toward longer wavelength as the amount of Fe increasing. Since the intensities and the width of absorption bands are very sensitive to the composition, we can use the spectral profiles as a diagnostics to decide the chemical composition of the circumstellar dust.