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Estimation of effective rotational temperature from spectral lines of yttrium monoxide molecule in sunspot spectrum(Article)

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Abstract

By measuring the equivalent widths of rotational lines of $B^2\Sigma^+$- $X^2\Sigma^+$(0, 0) band system of Yttrium Monoxide (YO) molecule observed in umbrae of the sunspots on 24 March 1981 was obtained by Wallace et al. (2000) with the Fourier Transform Spectrometer of the McMath-Pierce telescope of the National Solar Observatory at Kitt Peak, the rotational temperature is calculated. The equivalent widths of well resolved identified lines of the P_1, $P_2$and R_1, R_2branches yield the rotational temperature as 2747 K. © 2020 The Authors. Journal of Virus Eradication published by Mediscript

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