

## Identification and Quantification of Riboflavin in Vitamin Tablets by Total Luminescence Spectroscopy.

Utecht, R. E. *J. Chem. Educ.* **1993**, *70*, 673.

UV-Topic: Quantitative Analysis

Chem Topic: Vitamin B<sub>2</sub>

Riboflavin (or Lactoflavin) is common yellow dye in nature that shows a very strong yellow-green (max. at 530 nm) fluorescence when illuminated at 470 nm. This growth factor was isolated first in 1933 from egg.

The problem with the analysis of tablets is simply that there are many compounds that may absorb in the same region. However, there is nothing else emitting in the riboflavin region. Hence the spectrum of riboflavin in the tablet is unperturbed and can be used for quantitative analysis.

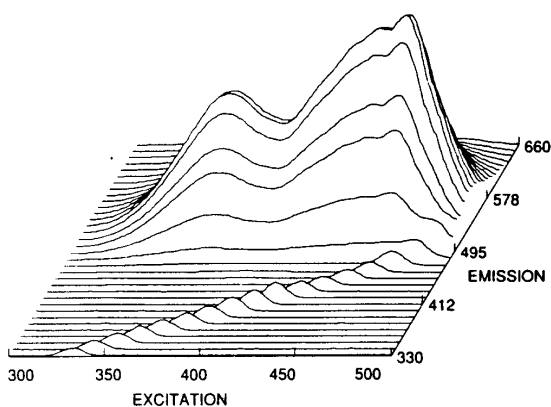
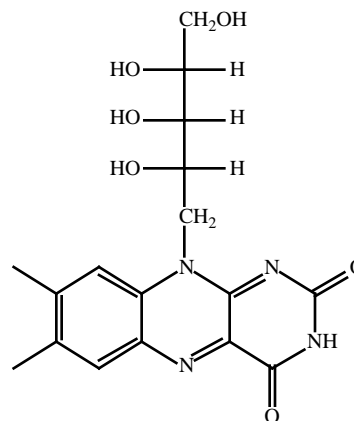


Figure 1. Total luminescence spectrum of a riboflavin solution.

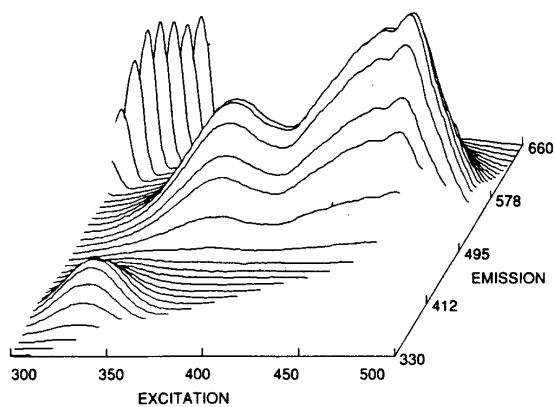


Figure 2. Total luminescence spectrum of a dissolved vitamin tablet.