

QUANTITATIVE ANALYSIS  
OF  
COMPLEX PHARMACEUTICAL MIXTURES  
USING  
ULTRA VIOLET/VISIBLE SPECTROPHOTOMETRY

By

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## ABSTRACT

Methods were established to determine Salbutamol in the presence of Sunset Yellow and Guaiphenesin in aqueous mixtures, using UV/Visible spectrophotometry. The established methods were expanded to determine Salbutamol in the presence of Ponceau 4R and Guaiphenesin, respectively in solid and liquid pharmaceutical preparations.

The developed method for Salbutamol tablets is simple, rapid and reliable compared to the established ion-exchange method (BP).

Simultaneous estimation of Salbutamol and Guaiphenesin was difficult due to overlapping of  $\lambda_{MAX}$  for the two components in acid medium. However, as a bathochromic shift was observed for Salbutamol in 0.070 M NaOH, a one step procedure was developed for the simultaneous analysis of Salbutamol and Guaiphenesin in pure analyte mixtures.