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**Simultaneous determination of binary mixture of amlodipine besylate and atenolol  
based on dual wavelengths**

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**Abstract**

Four, accurate, precise, and sensitive spectrophotometric methods are developed for simultaneous determination of a binary mixture of amlodipine besylate (AM) and atenolol (AT). AM is determined at its  $\lambda_{\max}$  360 nm ( $^0D$ ), while atenolol can be determined by four different methods. Method (A) is absorption factor (AF). Method (B) is the new Ratio Difference method (RD) which measures the difference in amplitudes between 210 and 226 nm. Method (C) is novel constant center spectrophotometric method (CC). Method (D) is mean centering of the ratio spectra (MCR) at 284 nm. The methods are tested by analyzing synthetic mixtures of the cited drugs and they are applied to their commercial pharmaceutical preparation. The validity of results is assessed by applying standard addition technique. The results obtained are found to agree statistically with those obtained by official methods, showing no significant difference with respect to accuracy and precision.

**Key words:** amlodipine; atenolol; absorption factor; ratio difference; constant center; mean centering.

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