



A New, Simple and Sensitive Analytical Method for Determination of Methyldopa in Pharmaceutical Formulations Using the 2,2-Diphenyl-picrylhydrazyl

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SUMMARY. A new, simple, precise, sensitive and low-cost spectrophotometric method for methyldopa (MTD) determination in pharmaceutical preparations is described. This method is based on the reduction reaction of the free radical, 2,2-diphenyl-picrylhydrazyl (DPPH[•]), by the MTD. Absorbance of the resulting product is measured at 515 nm. Beer's Law is obeyed in a concentration range of 3.36×10^{-6} a 1.34×10^{-5} mol/L methyldopa with a good correlation coefficient ($r = 0.9971$). No interference was observed from common excipients in formulations. The results show a simple, accurate and readily applied method to the determination of methyldopa in pharmaceutical products. The analytical results obtained for these products by the proposed method are in agreement with those of the Brazilian Pharmacopoeia procedure at 95 % confidence level.

KEY WORDS: 2,2-diphenyl-picrylhydrazyl, methyldopa, pharmaceutical formulations, spectrophotometric determination.

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