



Spectrophotometric Determination of Clonidine Hydrochloride through the Formation of Ion-Pair Complex

Sandra S. GUIMARÃES, Giovana D. SOUSA*, Severino GRANGEIRO JÚNIOR,
Daniel M. CASTELO BRANCO, Miracy M. ALBUQUERQUE, Leila B. LEAL & Davi P. SANTANA

*Universidade Federal de Pernambuco, Departamento de Ciências Farmacêuticas,
Av. Professor Arthur de Sá, s/n, Cidade Universitária, Recife – PE, Brasil. CEP: 50740-520.*

SUMMARY. A simple, sensitive and accurate spectrophotometric method was developed for the determination of clonidine hydrochloride either in pure form or in pharmaceutical formulations. The developed method involves formation of colored chloroform extractable ion-pair complex of the clonidine hydrochloride with bromocresol green. The optimum conditions of the reactions were studied and optimized. The absorbance of yellow products was measured at 412 nm. Linearity ranges were found to be 1.25-12.5 µg/mL. The method has the advantage of being highly sensitive and simple for determination of small dose drug and was applied to the determination of clonidine in capsules obtained in pharmaceutical compound.

KEY WORDS: Clonidine hydrochloride, Ion-pair complex, Spectrophotometry.

* Author to whom correspondence should be addressed. *E-mail:* giovana.sousa@nudfac.com.br