Analysis of Some Selected Muscarinic Receptor Antagonists Using Modern Instrumental Techniques

A Thesis

Presented to the Graduate School
Faculty of Pharmacy, University of Alexandria
In Partial Fulfillment of the
Requirements for the Degree

of

Master of Science

In

Pharmaceutical Sciences
(Pharmaceutical Analytical Chemistry)

By

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November 2006

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Acknowledgment

Thanks Allah for your love and company which are always the keys of my successes. Thank you for holding me in difficult times and giving me strength to continue.

I would like to express my sincere faithful gratitude to Professor Dr. Mahmoud A. El-Sayed, Professor of Pharmaceutical Analytical Chemistry for providing brilliant support, inspirational discussions, continuous encouragement and patient reading of drafts during the supervision of this thesis. His guidance and support have helped me to achieve this important step in my life.

My deep thanks go to Professor Dr. Azza A. Gazy, Professor of Pharmaceutical Analytical Chemistry for suggesting the point, for her keen interest, active supervision and laborious effect for systematic planning and directing the course of preparing this work. Her support was essential to over come difficult times and maintain hope in the future.

I am also indebted to Lebanese Atomic Energy Center especially Dr. Bilal Nsouli for his great effort in allowing the application of PIXE technique on some of the drugs studied in this thesis.

I would like to extend my deep thanks to my colleagues, secretarial staff and technicians in the department.

Here comes the moment where no words can express or justify one's feelings. I really don't know how to express my gratitude and thanks to my dear family and my husband, Thanks for always being there for me, Thanks for directing me to success Thanks for holding me in difficult times. Without you, I would have never been able to complete this thesis.

Thank you.

CONTENTS

List of Abbreviations

a	Intercept
Abs	Absorbance
A_{max}	Maximum absobance
ACB	2-amino-5-chlorobenzophenone
A_{ratio}	Absorbance ratio spectrum
b	Slope
BCG	Bromocresol green
BCP	Bromocresol purple
BPB	Bromophenol blue
BTB	Bromothymol blue
CL	Clidinium bromide
CY	Cyclonium bromide
CV%	Relative standard deviation
CH	Chlordiazepoxide
D_1	First derivative of absorbance
D_2	Second derivative of absorbance
DD_1	First derivative of ratio spectrum
DDQ	2,3-dichloro-5,6-dicyano-P-benzoquinone
DI	Dicyclomine hydrochloride
Er%	Percentage relative error
Fo/F	Ratio of Fluorescence Intensities in absence of quencher to that in presence of quencher.
ΔF	Relative Fluorescence Intensity
Fo-F	Difference between fluorescence intensities
GC	Gas Chromatography
HPLC	High Performance Liquid Chromatography
HPTLC	High Performance Thin Layer Chromatography
HY	Hyoscine-N-butyl bromide
K_s	Static quenching association constants.
MC	Methyl cellulose

NP	Non-parametric
P	Parametric
PCA	Picric acid
PIXE	Particle Induced X-ray Emission
PIGE	Particle Induced γ-ray Emission
r	Correlation coefficient
RSD%	Percentage Relative Standard Deviation
RBS	Rutherford Backscattering Spectroscopy
Rec%	Percentage recovery
SD	Standard Deviation
S_a	Standard deviation of the intercept
S_b	Standard deviation of the slope
S_b^2	Variance around the slope
S_b%	Relative standard deviation of the slope
$S_{y/x}$	Standard error of estimat
t	Student's t-test
TCNQ	7,7,8,8-Tetracyanoquinondimethane
TI	Tiemonium methyl sulfate
TR	Trifluperazine
UV	Ultraviolet
ε	Molar absorbivity
λ	Wavelength
Δλ	Wavelength interval
λ_{max}	Maximum wavelength
λ_{em}	Emission wavelength
λ_{ex}	Excitation wavelength