Pharmacognostical and Biological Investigation of *Manilkara zapota* (Fam. Sapotaceae) cultivated in Egypt

A Thesis Submitted

By

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بسم ٱللهِ ٱلرَّحمنِ الرَّحيمِ

قالوا۟ سبحانكَ لا علمَ لنا إلاَّ ما علمتنا إنكَ أنتَ ٱلعليمُ ٱلحكيمُ

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Nesrin Mohamed Ahmed Fayek

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Abbreviations

$AlCl_3$	Aluminum Chloride
$AlCl_3$/HCl	Aluminum Chloride/Hydrochloric acid
ax	axial
br.s	Broad singlet
C	Carbon
CC	Column Chromatography
CH_2Cl_2	Methylene chloride
$CHCl_3$	Chloroform
^{13}C-NMR	^{13}Carbon-Nuclear Magnetic Resonance
cv	Cultivar
cvs	Cultivars
d	Doublet
dd	Double of doublets
DMSO	Dimethyl Sulfoxide
DPPH	2,2-diphenyl-1-picrylhydrazyl
EI/MS	Electron Impact Mass Spectrum
eq	Equatorial
EtOAc	Ethyl acetate
EtOH	Ethanol
FAME	Fatty Acid Methyl Ester
Fig.	Figure
g	Gram
GLC	Gas Liquid Chromatography
H	Hydrogen
h	Hour(s)
HMBC	Heteronuclear Multiple Bond Coherence
^{1}H-NMR	^{1}Hydrogen(Proton)-Nuclear Magnetic Resonance
Hz	Hertz
IR	Infra red
J	Coupling constant
kg	Kilogram
L.cut	Longitudinal cut
LD_{50}	Median lethal dose
m	Multiplet
m/z	Mass/charge ratio
M^+	Molecular ion peak
MeOH	Methanol