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LIST OF ABBREVIATIONS AND SYMBOLS

A	=	absorbance (for DPPH assay)
amu	=	atomic mass unit
B	=	absorbance of the blank mixture (liposome only)
BHT	=	butylated hydroxytoluene
br	=	broad (for NMR spectra)
br d	=	broad doublet (for NMR spectra)
C	=	total content of phenolic compounds (mg/g plant extract) in GAE
<i>c</i>	=	the concentration of gallic acid established from the calibration curve (µg/ml)
°C	=	degree Celsius
CC	=	column chromatography
CDCl ₃	=	deuteriochloroform
CD ₃ OD	=	deuteromethanol
CHCl ₃	=	chloroform
¹³ C NMR	=	carbon-13 nuclear magnetic resonance
CO ₂	=	carbondioxide
cm	=	centimeter
d	=	doublet (for NMR spectra)
dd	=	doublet of doublet (for NMR spectra)
DMSO	=	dimethyl sulphoxide
DNA	=	deoxyribonucleic acid
DPPH	=	1,1-diphenyl-2-picrylhydrazyl
EA	=	absorbance due to the extract alone (for liposome assay)
EC ₅₀	=	concentration causing 50% effective activity
EDTA	=	ethylenediamine tetraacetic acid
EI-MS	=	electron impact mass spectroscopy
ET	=	absorbance of the extract test mixture (for liposome assay)

LIST OF ABBREVIATIONS AND SYMBOLS (Continued)

EtOH	=	ethanol
EtOAc	=	ethyl acetate
FeCl ₃	=	Ferric chloride
g	=	gram
GAE	=	gallic acid equivalents
FRM	=	Absorbance of the full reaction mixture (liposome and iron source plus solvent without the test substance)
FTNMR	=	fourier transform nuclear magnetic resonance
¹ H-NMR	=	proton nuclear magnetic resonance
HCl	=	hydrochloric acid
hex	=	hexane
H ₂ O ₂	=	hydrogen peroxide
hr	=	hour
Hz	=	hertz
IC ₅₀	=	concentration causing 50% inhibitory effect
In	=	inch
<i>J</i>	=	nuclear spin-spin coupling constant (in Hz)
Kg	=	kilogram
l	=	litre
M	=	molar (concentration)
M+	=	molecular ion
<i>m</i>	=	the weight of plant extract (mg)
m	=	meter
m	=	multiplet (for NMR spectra)
MDA	=	malonaldehyde
mg	=	milligram
MHz	=	megahertz

LIST OF ABBREVIATIONS AND SYMBOLS (Continued)

min	=	minute
ml	=	milliliter
mm	=	millimeter
mM	=	millimolar
mol	=	mole
MS	=	mass spectroscopy
MW	=	molecular weight
m/z	=	mass to charge ratio
μg	=	microgram
μl	=	microliter
μm	=	micromolar
NCI	=	national cancer institute
nm	=	nanometer
nM	=	nanomolar
NMR	=	nuclear magnetic resonance
O ₂	=	oxygen
OD	=	optical density
PBS	=	phosphate buffer saline
ppm	=	part per million
rpm	=	round per minute
s	=	singlet (for NMR spectra)
sec	=	second
SEM	=	standard error of the mean
SRB	=	sulphorhodamine B
t	=	triplet (for NMR spectra)
TBA	=	thiobarbituric acid
TCA	=	trichloroacetic acid

LIST OF ABBREVIATIONS AND SYMBOLS (Continued)

TLC	=	thin-layer chromatography
TMS	=	tetramethylsilane
ROS	=	reactive oxygen species
UV	=	ultraviolet
UV-vis	=	ultraviolet and visible spectrometry
V	=	the volume of extract (ml)
VLC	=	vacuum liquid chromatography
w/w	=	weight/weight
δ	=	chemical shift (in ppm, for NMR spectra)
λ	=	wavelength (for UV spectra)