



Authentication of Green Tea as Raw Material and in Pharmaceutical Products by Multivariate Analysis

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تقييم الشاي الأخضر كمادة أولية في المستحضرات الصيدلانية باستخدام تقنيات التحليل متعدد المتغيرات

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كلية الصيدلة - جامعة عين شمس

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Table of Content

Subject	Page
Acknowledgment	i
Table of Content	ii
List of Figures	v
List of Tables	viii
List of Abbreviations	ix
Introduction	1
Literature Review	3
1. Phytoconstituents of Green Tea.	5
2. Health Benefits and Biological Activities of Green Tea.	9
3. Recent Approaches for Monitoring the Quality of Green Tea.	42
4. Authentication of Green Tea.	49
Statement of the Problem	51
Work Strategy	52
Materials and Methods	53
1. Sample Collection	53
2. Solvents, Materials, Reagents and Standards	55
3. Sample Preparation for Different Analytical Techniques	55
4. Apparatus	56
5. Software	57
6. Methods and Procedures	57
Results	
Chapter I:	
Spectroscopic Analysis as a Chemometric Model for the Identification and Authentication of Green Tea	60
1. Ultra Violet Spectroscopy as a Chemometric Model for the Identification and Authentication of Green Tea	60
1.1. Results of Principal Component Analysis (PCA) of Genuine Green tea Samples from Different Geographical Origins.	61

1.2. Results of Hierarchical Clustering Analysis (HCA) of Genuine Green Tea Samples from Different Geographical Origins.	62
1.3. Validation of UV Model of Genuine Green Tea Samples from Different Geographical Origins.	68
2. Visible Spectroscopy as a Chemometric Model for the Identification and Authentication of Green Tea	73
2.1. Results of Principal Component Analysis (PCA) of Genuine Green Tea Samples from Different Geographical Origins.	73
2.2. Results of Hierarchical Clustering Analysis (HCA) of Genuine Green Tea Samples from Different Geographical Origins.	74
3. Fourier Transformer Infrared Spectroscopy as a Chemometric Model for the Identification and Authentication of Green Tea	79
3.1. Results of Principal Component Analysis (PCA) of Genuine Green Tea Samples from Different Geographical Origins.	79
3.2. Results of Hierarchical Clustering Analysis (HCA) of Genuine Green Tea Samples from Different Geographical Origins.	80
4. Nuclear Magnetic Resonance Spectrometry as a Chemometric Model for the Identification and Authentication of Green Tea	85
Results of Principal Component Analysis (PCA) of Genuine Green Tea Samples from Different Geographical Origins.	85
Chapter II:	
Chromatographic analysis as a Chemometric Model for the Identification and Authentication of Green Tea	88
1. High Performance Thin-Layer Chromatography as a Chemometric Model for the Identification and Authentication of Green Tea	88
1.1. Results of Principal Component Analysis (PCA) of Genuine Green Tea Samples from Different Geographical Origins.	88
1.2. Results of Hierarchical Clustering Analysis (HCA) of Genuine Green Tea Samples from Different Geographical Origins.	88

1.3. Validation of HPTLC Model of Genuine Green tea Samples from Different Geographical Origins.	91
2. High Performance Liquid Chromatography as a Chemometric Model for the Identification and Authentication of Green Tea	94
2.1. Results of Principal Component Analysis (PCA) of Green tea Samples from Different Geographical Origins.	94
2.2. Results of Hierarchical Clustering Analysis (HCA) of Green Tea Samples from Different Geographical Origins.	94
2.3. Validation of Developed HPLC Method used for the Analysis of Green Tea Samples from Different Geographical Origins.	96
Chapter III:	
Biological Assessment of Different Green Tea (<i>Camellia sinensis</i>) Samples from Different Geographical Origins	100
The Antioxidant Capacity of Genuine Green Tea Samples collected from Different Geographical Origins.	101
Conclusion	104
Summary	106
Recommendations	110
References	111
Appendix	143
Arabic Summary	

List of Figures

Figure	Page
1. Photo of green tea plant.	4
2. Chemical structures of phytoconstituents isolated from green tea.	8
3. (A) PCA score plot of the UV data matrix (200-400 nm) of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	63
(B) PCA leverage plot of the UV data matrix (200-400 nm) of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	63
(C) PCA score plot of the UV data matrix (200-400 nm) of the methanolic extracts of the genuine green tea samples collected from different geographical origins after removing the outlier SF sample.	64
(D) PCA score plot of the UV data matrix (200-400 nm) of the methanolic extracts of the genuine green tea samples collected from different geographical origins after removing the outlier SF sample & Kenyan samples.	64
4. Large detailed political map of Asia with the genuine green tea samples from Asian countries distributed on it.	65
5. PCA score plot of the UV data matrix (200-400 nm) of the methanolic extracts of the three replicates of the five genuine Kenyan green tea samples.	65
6. Map of Kenya with the genuine Kenyan green tea samples distributed on it.	66
7. Clustering dendogram of the UV data matrix (200-400 nm) of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	66
8. PCA score plot of the UV data matrix (200-400 nm) of the methanolic extracts of the twelve commercial green tea samples using PCA model of genuine green tea samples collected from different geographical origins.	71
9. Cooman's plot showing Kenyan & Ceylon genuine green tea samples-to-China and India models distance.	71

10. Cooman's plot showing Kenyan & Ceylon genuine green tea samples along with commercial samples-to-China and India models distance.	72
11. (A) PCA score plot of the visible data matrix (400-800 nm) of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	75
(B) PCA score plot of the visible data matrix (400-800 nm) of the methanolic extracts of the genuine green tea samples collected from different geographical origins after removing the outlier SF sample.	75
(C) PCA score plot of the visible data matrix (400-800 nm) of the methanolic extracts of the genuine green tea samples collected from different geographical origins after removing the outlier SF sample & Kenyan samples.	76
12. PCA score plot of the visible data matrix (400-800 nm) of the methanolic extracts of the three replicates of the five Kenyan green tea samples.	76
13. (A) Clustering dendogram of the visible data matrix (400-800 nm) of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	77
(B) Clustering dendogram of the visible data matrix (400-800 nm) of the methanolic extracts of the genuine green tea samples collected from different geographical origins after removing Kenyan samples.	77
14. PCA score plot of the FTIR raw data matrix (4000-400 cm^{-1}) of the thirty-one genuine green tea samples collected from different geographical origins.	81
15. PCA score plot of the FTIR data matrix (4000-400 cm^{-1}) of the thirty-one genuine green tea samples collected from different geographical origins after Standard Normal Variate (SNV) transformation method.	81
16. PCA score plot of the FTIR data matrix (4000-400 cm^{-1}) of genuine green tea samples collected from different geographical origins after Standard Normal Variate (SNV) transformation method after removing Kenyan samples.	82
17. PCA score plot of the FTIR raw data matrix (4000-400 cm^{-1}) of the three replicates of the five genuine Kenyan green tea samples.	82

18. (A) Clustering dendogram of the FTIR data matrix (4000-400 cm ⁻¹) of the thirty-one genuine green tea samples collected from different geographical origins after Standard Normal Variate (SNV) transformation method.	83
(B) Clustering dendogram of the FTIR data matrix (4000-400 cm ⁻¹) of the genuine green tea samples collected from different geographical origins after Standard Normal Variate (SNV) transformation method after removing the Kenyan samples.	83
19. PCA score plot of the chemical shifts of the thirty-one genuine green tea samples collected from different geographical origins.	86
20. PCA score plot of peak area% of HPTLC chromatograms of the thirty-one genuine green tea samples collected from different geographical origins scanned at 450 nm.	90
21. Clustering dendogram of the peak area% of HPTLC chromatograms of the thirty one genuine green tea samples collected from different geographical origins scanned at 450 nm.	90
22. PCA score plot of the peak area% of HPTLC chromatograms of the twelve commercial green tea samples using PCA model of genuine green tea samples collected from different geographical origins.	93
23. Cooman's plot showing Kenyan & Ceylon genuine green tea samples along with commerical samples-to-China and India models distance (HPTLC).	93
24. PCA score plot of the chromatograms data matrix of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	95
25. Clustering dendogram of the chromatograms data matrix of the methanolic extracts of the thirty-one genuine green tea samples collected from different geographical origins.	95
26. Calibration curve for standard caffeine showing the relationship between concentration and area under the curve as determined by HPLC.	99
27. Caffeine content (mg/1 gm DW) of genuine green tea samples collected from different geographical origins.	99
28. The half maximal inhibitory concentration (IC ₅₀) of genuine green tea samples collected from different geographical origins.	101

List of Tables

Table	Page
1. The major biological activities and mechanism of action of different parts, extracts as well as compounds isolated from green tea.	23
2. Collected green tea samples from different geographical origins and commercial ones, codes and sources.	53
3. Classification table of genuine green tea samples collected from different geographical origins with respect to “East Asia” and “South Asia & Kenya” models using SIMCA.	70

List of Abbreviations

ALT	Alanine Aminotransferase
AST	Aspartate Aminotransferase
BHA	Butylated Hydroxyanisole
BHT	Butylated Hydroxytoluene
BP	Blood Pressure
BPH	Benign Prostate Hyperplasia
CA	Cluster Analysis
CAD	Coronary Artery Disease
cAMP	Cyclic Adenosine Monophosphate
CG	Catechin Gallate
COX	Cyclooxygenase
CV	Cardiovascular
CYP	Cytochrome P450
DPPH	2,2-Diphenyl-1-Picrylhydrazyl
EC	(-)-Epicatechin
ECG	(-)-Epicatechin-3-Gallate
EGC	(-)-Epigallocatechin
EGCG	(-)-Epigallocatechin-3-Gallate
E-nose	Electronic Nose
ES	Ensemble Strategy
ESR	Electron Spin Resonance
E-tongue	Electronic Tongue
FAS	Fatty-acid Synthase
FT-IR	Fourier Transformer-Infrared
GA	Gallic Acid
GABA	γ -Aminobutyric Acid
GC	Gas Chromatography
GSH	Glutathione
GSHpx	Glutathione Peroxidase

GST	Glutathione S-Transferase
GTPs	Green Tea Polyphenols
HCA	Hierarchical Clustering Analysis
HIV	Human Immunodeficiency Virus
HPLC	High Performance Liquid Chromatography
IC ₅₀	The Half Maximal Inhibitory Concentration
ICH	International Conference on Harmonization
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
IgE	Immunoglobulin E
LDA	Linear Discriminant Analysis
LDL	Low-Density Lipoprotein
LOD	Limit of Detection
LOQ	Limit of Quantification
LOX	Lipoxygenase
MALDI-TOF-MS	Matrix-Assisted Laser Desorption/Ionization-Time-of-Flight-Mass Spectrometry
MAPK	Mitogen-Activated Protein Kinase
MI	Myocardial Infarction
MMPs	Matrix Metalloproteinases
MS	Mass Spectrometry
NIR	Near-Infrared
NK	Natural Killer
NOS	Nitric Oxide Synthase
O ₂ ⁻	Oxygen-Free Radicals
P-60	Polyphenone 60
PCA	Principal Component Analysis
PLS	Partial Least Square
PMNs	Polymorphonuclear Neutrophils
PSA	Prostate-Specific Antigen
PVN	Paraventricular Nucleus
QuEChERS	Quick, Easy, Cheap, Effective, Rugged and Safe

ROS	Reactive Oxygen Species
RR	Relative Risk
R.S.D	Relative Standard Derivation
Rx	Reaction
SIMCA	Soft Independent Modeling of Class Analogy
SNV	Standard Normal Variate
SOD	Superoxide Dismutase
Stdev	Standard Deviation
TBHQ	Tert-Butylhydroquinone
TEAC	Trolox Equivalent Antioxidant Capacity
TGs	Triglycerides
TH	Tyrosine Hydroxylase
TNF- α	Tumor Necrosis Factor-Alpha
UDP	Uridine 5'-Diphosphate
UPLC	Ultra-High Performance Liquid Chromatography
UV	Ultraviolet
VEGF	Vascular Endothelial Growth Factor