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 الصيدلية باستخدام تقنيات التحليل متعدد المتغيرات

رسالة مقدمة الى

كلية الصيدلة - جامعة عين شمس

و ذلك لاستكمال متطلبات الحصول على درجة الماجيستير في العلوم الصيدلية

(عقاقير)

من الصيدلانية

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Maram Aboulwafa

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ALT	Alanine Aminotransferase
AST	Aspartate Aminoransferase
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