

Journal of AOAC INTERNATIONAL

VOLUME 105, NUMBER 1
JANUARY/FEBRUARY 2022

Contents

Drug Formulations

- Simultaneous Estimation of Six Nitrosamine Impurities in Valsartan Using Liquid Chromatographic Method
Kunjan B. Bodiwala, Bhoomi G. Panchal, Shrinivas S. Savale, Jayant B. Dave, Dipen K. Sureja, Tejas M. Dhameliya, and Mahesh T. Chhabria 1

- Quantifying Ethanol in Ethanol-Based Hand Sanitizers by Headspace Gas Chromatography with Flame Ionization Detector (HS-GC/FID)
Bruno Ruiz Brandão da Costa, Lohanna Pereira El Haddad, Vítor Luiz Caleffo Piva Bigão, and Bruno Spinosa De Martinis 11

- Ultra-Performance Liquid Chromatographic and Densitometric Methods for Sensitive Determination of Xipamide and Triamterene in Pure and Pharmaceutical Dosage Forms
N. V. Fares, Haitham A. El Fiky, Amr M. Badawey, and Maha F. Abd El Ghany 19

- Systemic Optimization and Validation of Normal and Reversed-Phase Eco-Friendly Chromatographic Methods for Simultaneous Determination of Paracetamol and Phenylephrine Hydrochloride in the Presence of Paracetamol Impurities
Joliana F. Farid, Nadia M. Mostafa, Yasmin M. Fayez, and Hebatallah M. Essam 26

- DoE-Based Analytical-FMCEA for Enhanced AQbD Approach to MEER-RP-HPLC Method for Synchronous Estimation of 15 Anti-Hypertensive Pharmaceutical Dosage Forms
Pintu B. Prajapati, Ankita S. Patel, and Shailesh A. Shah 34

Environmental Chemical Contaminants

- A Simple Method to Simultaneously Determine the Level of Nicotine, Glycerol, Propylene Glycol, and Triacetin in Heated Tobacco Products by Gas Chromatography–Flame-Ionization Detection
Adrielle Xianwen Chen, Faridatul Akmmam Morsed, and Nuan Ping Cheah 46

- Rapid Analysis of Trace Phthalates by Spray-Inlet Microwave Plasma Torch Ionization Tandem Mass Spectrometry in Commercial Perfumes
Meng Miao, Gaosheng Zhao, Ping Cheng, Jia Li, Jingyi Zhang, and Hongzhi Pan 54

- A Sensitive Ultra-High Performance Liquid Chromatography–Tandem Mass Spectrometry Method Based on Derivatization with 1-Nitro-2-Naphthaldehyde for Determination of Alkylhydrazines in Surface Water
Jin-Ah Oh, Ho-Sang Shin, and Hyun-Hee Lim 62

- Mercury Determination in Certifiable Color Additives Using Thermal Decomposition Amalgamation and Atomic Absorption Spectrometric Analysis
Kha Phan, Nicole Richardson, and Nancy M. Hepp 69

Food Chemical Contaminants

- Validation of QuEChERS Method for Estimation of Imidacloprid and its Metabolites in Cotton Flower, Pollen, Nectariferous Tissue, and Honey
Pushpinder Kaur Brar, Balpreet Kaur Kang, Rozy Rasool, and Sanjay Kumar Sahoo 74

- Determination of Alternaria Toxins in Tomato, Wheat, and Sunflower Seeds by SPE and LC-MS/MS—A Method Validation Through a Collaborative Trial
Carlos Gonçalves, Ádam Tölgysi, Katrien Bouten, Piotr Robouch, Hendrik Emons, and Joerg Stroka 80

A Dilute-and-Shoot UHPLC-MS/MS Isotope Dilution Method for Simultaneous Determination and Confirmation of 11 Mycotoxins in Dried Distiller's Grains with Solubles Cristina B. Nocetto and Hui Li	95
An HPLC-MS/MS Method Using a Multitoxin Clean up Column for Analysis of Seven Mycotoxins in Aquafeeds Siyuan Bi, Jingbing Xu, Xiaoshan Yang, Peng Zhang, Kaoqi Lian, and Li Ma	107
Monitoring of Some Chemical Contaminants Residue in Imported Wheat and Barley Grains Using QuEChERS Method and GC-MS/MS Tamer M.A.M. Thabit, Dalia E. El-Hefny, Dalia I.H. Elgeddawy, Medhat A.H. El-Naggar, and Ferhad M. Serageldin	115
Simultaneous Detection of Multiple Plant Growth Regulator Residues in Cabbage and Grape Using an Optimal QuEChERS Sample Preparation and UHPLC-MS/MS Method Xiu-Ping Zhan, Bin Liu, Wei-Fang Zhu, Jian-Bo Chen, Lin Ma, Li Zhao, Lan-Qi Huang, and Xiu Chen	129
Human Nutrient Methods	
Determination of β -Galactooligosaccharides (GOS) in Infant Formula and Adult Nutritionals: Single-Laboratory Validation, First Action 2021.01 Denis Cuany, Fikrey Andetson, Xavier Fontannaz, Thierry Bénet, Véronique Spichtig, and Sean Austin	142
Simple, Precise, and Less Biased GMO Quantification by Multiplexed Genetic Element-Specific Digital PCR Satoshi Noma, Yosuke Kikuchi, Megumi Satou, Tomoki Tanaka, Toshiyuki Takiya, Hideki Okusu, Satoshi Futo, Reona Takabatake, Kazumi Kitta, and Junichi Mano	159
Microbiological Methods	
Evaluation of the Thermo Scientific SureTect Salmonella Species PCR Assay in a Broad Range of Foods and Select Environmental Surfaces: Pre-Collaborative and Collaborative Study: First Action 2021.02 Benjamin Bastin, Wesley Thompson, M. Joseph Benzinger Jr, Erin S. Crowley, Ana-Maria Leonte, Evangelos J. Vandoros, Daniel Thomas, Annette Hughes, David Crabtree, Katharine Evans, and Daniele Sohier	167
Comparative Evaluation of the SMARTCHEK Salmonella Species Detection Kit for GENECHECKER UF-300 Real-Time PCR System with Rapi:chip TM and Rapi:Direct TM Lysis Buffer for Select Foods: AOAC Performance Tested Method SM 032101 Dobu Lee, Okran Choi, and Jinhee Park	191
Characterization of the Complete Chloroplast Genome of <i>Buddleja lindleyana</i> Shanshan Liu, Shiyin Feng, Yuying Huang, Wenli An, Zerui Yang, Chunzhu Xie, and Xiasheng Zheng	202
Validation of the Clear Safety Listeria Method for Detection of Listeria Species in Hot Dogs and on Environmental Surface Matrixes: AOAC Performance Tested Method SM 091901 Stephanie Pollard, Atul K. Singh, Andrew Lin, James Maloney, Anay Campos, Ramin Khaksar, Benjamin Bastin, Wesley Thompson, M. Joseph Benzinger Jr, and James Agin	211
Validation of the Modified Clear Safety Salmonella for Detection of <i>Salmonella enterica</i> in Selected Poultry and Pet Food Matrixes and on Stainless Steel: AOAC Performance Tested Method SM 111802 Atul K. Singh, Andrew Lin, James Maloney, Anay Campos, Alito Hamada, Hanoor Sharma, Wesley Thompson, Benjamin Bastin, M. Joseph Benzinger Jr, James Agin, Stephanie Pollard, and Ramin Khaksar	230

Natural Products	
Green and Cost-Effective Extraction Techniques of Quercetin from Mixture of Nutraceuticals with Yield Analysis via Spectrophotometry and High-Performance Liquid Chromatography Methods <i>Mohammed Gamal, Heba-Alla H. Abd-ElSalam, Ibrahim A. Naguib, Medhat A. Al-Ghobashy, Hala E. Zaazaa, and M. Abdelkawy</i>	249
Identification of the Phytoconstituents in Methanolic Extract of <i>Adhatoda Vasica L.</i> Leaves by GC-MS Analysis and Its Antioxidant Activity <i>Abuzer Ali, Nausheen Khan, Abdul Qadir, Musarrat Husain Warsi, Amena Ali, and Abu Tahir</i>	267
Response Surface Methodology to Optimize Supercritical Carbon Dioxide Extraction of <i>Polygonum cuspidatum</i> <i>Ningjie Ruan, Zhen Jiao, and Linglong Tang</i>	272
Separation of Three Phenanthrenes and Two Bibenzyls from Chloroform Fractions of <i>Pholidota Articulata</i> Lindl. Using HPLC <i>Xiuying Zhu, Hègui Yan, Minghui Yang, Xiaoqiong Yang, and Lu He</i>	282
Sampling Method	
Effect of Test Portion Mass on Vitamin A Testing in Animal Feed Materials <i>H. Dorota Inerowicz, Lawrence Novotny, Charles A. Ramsey, Ken L. Riter, Michele Swarbrick, and Nancy Thiex</i>	288
Statistical Analysis and Chemometric Methods	
Development and Validation of Four Spectrophotometric Methods for Assay of Rebamipide and its Impurity: Application to Tablet Dosage Form <i>Mohammed A. Alqarni, Radwa S. Moatamed, Ibrahim A. Naguib, Mohamed R. El Ghobashy, and Nehal F. Farid</i>	299
Spectrophotometric Determination of Aspirin and Omeprazole in the Presence of Salicylic Acid as a Degradation Product: A Comparative Evaluation of Different Univariate/Multivariate Post Processing Algorithms <i>Manal S. Elmasry, Ahmed Serag, Wafaa S. Hassan, Magda Y. El-Mamli, and Mohamed Badrawy</i>	309
Multivariate Model Update Chemometric Methods for Determination of Prednisolone and Esomeprazole in Spiked Human Plasma: A Comparative Study <i>Nehal F. Farid, Maimana A. Magdy, Basma H. Anwar, and Nessreen S. Abdelhamid</i>	317
Smart Mathematical Manipulation of Spectral Signals: Stability Indicating, for the Estimation of Solifenacin Succinate: Anti-Muscarinic Drug, in Existence of Its Acid Degradation Product <i>Ahmed S. Fayed, Maha A. Hegazy, Ebraam B. Kamel, and Maya S. Eissa</i>	323