Journal of AOAC INTERNATIONAL

VOLUME 106, NUMBER 1 JANUARY/FEBRUARY 2023

Contents

Short Communication Animal Food, Pet Food, and Plant Nutrient Methods Improved Performance of the Reference Casein Control Group in AOAC Official Method SM 960.48 [Protein Efficiency Ratio, Rat Bioassay) for Determining the Biological Quality of Protein in Infant Formula Islande M. Hoskin	1
Research Articles Animal Food, Pet Food, and Plant Nutrient Methods Variations in Methods for Quantification of Crude Ash in Animal Feeds Daiana F. Quirino, Malber N. N. Palma, Marcia O. Franco, and Edenio Detmann	6
Drug Formulations Advanced Spectrophotometric Resolution Techniques for a Spectrally Overlapping Spasmolytic Binary Mixture along with Dichloroaniline as a Toxic Impurity: Application to Content Uniformity Testing Eman Darweish, Hoda M. Marzouk, Yasmin M. Fayez, and Maya S. Eissa	14
Green Spectrophotometric Platforms for Resolving Overlapped Spectral Signals of Recently Approved Antiparkinsonian Drug (Safinamide) in the Presence of Its Synthetic Precursor (4-Hydroxybenzaldehyde): Applying Ecological Appraisal and Comparative Statistical Studies Heba M. El-Sayed, Omar M. El-Abassy, Hisham Ezzat Abdellatef, Hassan A. M. Hendawy, and Hany Ibrahim	26
Quantitative ¹ HNMR Spectroscopy: Analysis of Zinc Gluconate in Utozinc [®] Tablets, a Mixture of Zinc Gluconate and Vitamin C Marwa H. Hassan and Abdalla E. A. Hassan	34
Quantification of Anti-Osteoporotic Anabolic Peptide in Stealth Lipid Nanovesicles Through Validated RP-HPLC Method Sagar Salave, Sonali Jain, Ravi Shah, and Derajram Benival	40
Environmental Chemical Contaminants Determination of Carcinogenic Primary Aromatic Amines Contained as Impurities in Synthetic Organic Colorants Tsuyoshi Kawakami, Tomoko Obama, Maiko Tahara, and Yoshiaki Ikarashi	49
Development and Validation of an UHPLC–MS/MS Method for the Determination of 32 Pyrrolizidine Alkaloids in Chinese Wild Honey Haiping Wu, Dingyan Fan, and Jiangchuang Cheng	56
Food Chemical Contaminants A DNA Metabarcoding Workflow to Identify Species in Spices and Herbs Geoffrey Cottenet, Christophe Cavin, Carine Blancpain, Poh Fong Chuah, Roberta Pellesi, Michele Suman, Sofia Nogueira, and Mario Gadanho	65

Bridging of a Liquid Chromatography–Tandem Mass Spectrometry Method for Oxytetracycline, Chlortetracycline, and Tetracycline in Bovine Kidney with the Official Microbial Growth Inhibition Assay Lauren Girard, Hui Li, Charles Feng, Philip J. Kijak, Sara Sklenka, Shani Smith, Sharon Rasmussen, Carol Pugh, Shawn McDermott, O. Alberto Chiesa, Jeffrey Ward, Elizabeth Hasbrouck, Elizabeth Smith,	
Vicki Lancaster, and Junshan Qiu	73
Validation of Delvotest [®] Fast BT for Detection of β-Lactams and Tetracyclines in Raw Cow's Milk: Performance Tested Method SM 102104 Dhiredj C. Jagesar and Jan Kerkhof	88
Human Nutrient Methods Optimized Box-Behnken Design Combined Response Surface Methodology to Determine Calcium and Iron Contents Using Visible, Atomic Emission and Atomic Absorption Spectrophotometry in Vegetables and Wastewater Samples Sirhan Al-Batty, S. K. Manirul Haque, Nafisur Rahman, and Syed Najmul Hejaz Azmi	99
Analysis of Six Human Milk Oligosaccharides (HMO) in Infant Formula and Adult Nutritionals by 2AB Labeling and Quantification with HILIC-FLD: First Action 2022.02 David J. Ellingson, Andrew J. Ruosch, Kalley L. Foster, Kaitlyn M. Duchniak, and Ian M. Laessig	112
Determination of Insoluble, Soluble, and Total Dietary Fiber in Foods Using a Rapid Integrated Procedure of Enzymatic-Gravimetric-Liquid Chromatography: First Action 2022.01 Barry V. McCleary and Ciara McLoughlin	127
Microbiological Methods Characterization of the Complete Chloroplast Genome of Four Species in Callerya Zhi Chen, Chen Jin, Xiaoyun Wang, Yaqiong Deng, Xiaodan Tian, Xunxun Li, Qinxi Zhang, Yanli Zeng, Jiawei Liao, and Ling Zhang	146
Sensitive and Rapid Detection of Escherichia coli O157:H7 From Beef Samples Based on Recombinase Aided Amplification Assisted CRISPR/Cas12a System Taisong Fang, Jinling Shen, Junxin Xue, Yuan Jiang, Dehua Guo, Jielin Yang, Xiangxiang Kong, Xuebin Xu, and Xiang Wang	156
3M [™] Petrifilm [™] Rapid Aerobic Count (RAC) Plate Method for the Enumeration of Aerobic Bacteria on Selected Surfaces: AOAC Official Method SM 2015.13 Cari K. Lingle, April J. Schumacher, Micki L. Rosauer, Karen M. Silbernagel, and Andrew Deterding	165
Soleris [®] Automated System for the Rapid Detection of Burkholderia cepacia Complex in Cosmetic Products Lei Zhang, Jerry Tolan, Nicholas Lavigne, Carolyn Montei, Robert Donofrio, and Preetha Biswas	171
Natural Products Qualitative Analysis and Quality Evaluation of Pimpinella thellungiana by Serum Pharmacochemistry, Network Pharmacology, and QAMS Xiaomin Cui, Jing Hu, Zhiyong Chen, and Hui Ren	179
Effect of Adulteration on Quality and Preliminary Risk Assessment of the Decoction Pieces of Farfarae Flos Based on the Determination of Hepatotoxic Pyrrolizidine Alkaloids by UHPLC–MS/MS An-Ping Li and Yan-Ping Shi	192
The Determination Method of Total Polyphenol in Tea and Substitute Tea Based on	
[Ag(HIO ₆) ₂] ^{5—} –Luminol Chemiluminescence System Fang Su, Hui Yang, Tian Ma, Meifang Chen, Shipeng Liu, and Li Ma	205

Metabolite Profiling, Stability Testing, Pharmacokinetics, and In Vivo Pattern Recognition Analysis of Arq-e-Keora: A Traditional Unani Formulation Sultan Zahiruddin, Abida Parveen, Rabea Parveen, Asim Ali Khan, and Sayeed Ahmad	212
Statistical Analysis and Chemometric Methods Chemometric Quality Assessment of Doxylamine Succinate With Its Degradation Product: Implementation of Two Predictive Models on UV-Spectrophotometric Data of Anti-Emetic Binary Mixture Heidi R. Abd El-Hadi, Maya S. Eissa, Hala E. Zaazaa, and Basma M. Eltanany	221
Comparative Chemometric Manipulations of UV-Spectrophotometric Data for the Efficient Resolution and Determination of Overlapping Signals of Cyclizine and Its Impurities in Its Pharmaceutical Preparations Michel Y. Fares, Nada S. Abdelwahab, Maha A. Hegazy, Maha M. Abdelrahman, and Ghada M. El-Sayed	228
Chemometric-Based AQbD and Green Chemistry Approaches to Chromatographic Analysis of Remogliflozin Etabonate and Vildagliptin Pintu Prajapati, Hetal Ahir, Bhumika Prajapati, and Shailesh Shah	239
Chemometric and Design of Experiments-Based Analytical Quality by Design and Green Chemistry Approaches to Multipurpose High-Pressure Liquid Chromatographic Method for Synchronous Estimation of Multiple Fixed-Dose Combinations of Azilsartan Medoxomil Pintu Prajanati. Abhinandan Shahi, Aneri Acharya, and Shailesh Shah	250