

## Perspectives

10401

[dx.doi.org/10.1021/jf202385x](http://dx.doi.org/10.1021/jf202385x)

**Organically versus Conventionally Grown Produce: Common Production Inputs, Nutritional Quality, and Nitrogen Delivery between the Two Systems**

Gene E. Lester\* and Robert A. Saftner

## Articles

### *Analytical Methods*

10407



[dx.doi.org/10.1021/jf200202d](http://dx.doi.org/10.1021/jf200202d)

**Improved Solvent Extraction Procedure and High-Performance Liquid Chromatography–Evaporative Light-Scattering Detector Method for Analysis of Polar Lipids from Dairy Materials**

Thien Trung Le,\* Jelena Miodinovic, Tuyet Mai Nguyen, Roeland Rombaut, John van Camp, and Koen Dewettinck

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[dx.doi.org/10.1021/jf202382s](http://dx.doi.org/10.1021/jf202382s)

**Comparison of DNA Extraction Methods and Development of Duplex PCR and Real-Time PCR To Detect Tomato, Carrot, and Celery in Food**

Simona Pafundo, Mariolina Gulli, and Nelson Marmiroli\*

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[dx.doi.org/10.1021/jf2025677](http://dx.doi.org/10.1021/jf2025677)

**Chromatographic Methods for Metabolite Profiling of Virus- and Phytoplasma-Infected Plants of *Echinacea purpurea***

Federica Pellati,\* Francesco Epifano, Nicoletta Contaldo, Giulia Orlandini, Lisa Cavicchi, Salvatore Genovese, Davide Bertelli, Stefania Benvenuti, Massimo Curini, Assunta Bertaccini, and Maria Grazia Bellardi

10435  [dx.doi.org/10.1021/jf201718r](https://doi.org/10.1021/jf201718r)  
**Metabolomic Approach for Age Discrimination of *Panax ginseng* Using UPLC-Q-ToF MS**  
Nahyun Kim, Kemok Kim, Byeong Yeob Choi, DongHyuk Lee, Yoo-Soo Shin, Kyong-Hwan Bang, Seon-Woo Cha, Jae Won Lee, Hyung-Kyoon Chol, Dae Sik Jang, and Dongho Lee\*

10442  [dx.doi.org/10.1021/jf201886c](https://doi.org/10.1021/jf201886c)  
**Prediction of Relative Tissue Proportions in Wheat Mill Streams by Fourier Transform Mid-infrared Spectroscopy**  
Cécile Barron\*

10448 [dx.doi.org/10.1021/jf202453v](https://doi.org/10.1021/jf202453v)  
**A Quantitative Immunopolymerase Chain Reaction Method for Detection of Vegetative Insecticidal Protein in Genetically Modified Crops**  
Rajesh Kumar

10454 [dx.doi.org/10.1021/jf2026007](https://doi.org/10.1021/jf2026007)  
**Rapid NMR Method for the Quantification of Organic Compounds in Thin Stillage**  
Kornsulee Ratanapariyanuch, Jianheng Shen, Yunhua Jia, Robert T. Tyler, Youn Young Shim,\* and Martin J. T. Reaney\*

10461 [dx.doi.org/10.1021/jf2026499](https://doi.org/10.1021/jf2026499)  
**Predicting the Age and Type of Tuocha Tea by Fourier Transform Infrared Spectroscopy and Chemometric Data Analysis**  
Lu Xu,\* De-Hua Deng,\* and Chen-Bo Cai

10470  [dx.doi.org/10.1021/jf2026814](https://doi.org/10.1021/jf2026814)  
**A New High-Performance Liquid Chromatography–Tandem Mass Spectrometry Method Based on Dispersive Solid Phase Extraction for the Determination of the Mycotoxin Fusarin C in Corn Ears and Processed Corn Samples**  
Karin Kleigrewe, Anna-Carina Söhnel, and Hans-Ulrich Humpf\*

### Bioactive Constituents

10477 [dx.doi.org/10.1021/jf2022012](https://doi.org/10.1021/jf2022012)  
**Production of Galacto-oligosaccharides by the  $\beta$ -Galactosidase from *Kluyveromyces lactis*: Comparative Analysis of Permeabilized Cells versus Soluble Enzyme**  
Barbara Rodriguez-Colinas, Miguel A. de Abreu, Lucia Fernandez-Arrojo, Roserí de Beer, Ana Poveda, Jesus Jimenez-Barbero, Dietmar Haltrich, Antonio O. Ballesteros Olmo, María Fernandez-Lobato, and Francisco J. Plou\*

10485 [dx.doi.org/10.1021/jf2024193](https://doi.org/10.1021/jf2024193)  
***Ent-2'-epi-Orobanchol* and Its Acetate, As Germination Stimulants for *Striga gesnerioides* Seeds Isolated from Cowpea and Red Clover**  
Kotomi Ueno, Saki Nomura, Satoru Muranaka, Masaharu Mizutani, Hirosato Takikawa, and Yukihiro Sugimoto\*

10491 [dx.doi.org/10.1021/jf202604k](https://doi.org/10.1021/jf202604k)  
**Cytokinin-Dependent Improvement in Transgenic P<sub>SARK::IPT</sub> Tobacco under Nitrogen Deficiency**  
María del Mar Rubio-Wilhelmi,\* Eva Sanchez-Rodriguez, Miguel Angel Rosales, Begoña Blasco, Juan Jose Rios, Luis Romero, Eduardo Blumwald, and Juan Manuel Ruiz

10496 [dx.doi.org/10.1021/jf202756f](https://doi.org/10.1021/jf202756f)  
**Immunosuppressive Effects of Fisetin in Ovalbumin-Induced Asthma through Inhibition of NF- $\kappa$ B Activity**  
Mei-Yao Wu, Shih-Kai Hung, and Shu-Ling Fu\*

### Biofuels and Bioproducts Chemistry

10505 [dx.doi.org/10.1021/jf202452m](https://doi.org/10.1021/jf202452m)  
**Preparation of Lignopolyols from Wheat Straw Soda Lignin**  
Behzad Ahvazi,\* Olivia Wojciechowicz, Tan-Minh Ton-That, and Jalal Hawari

10517 [dx.doi.org/10.1021/jf2023676](https://doi.org/10.1021/jf2023676)  
**Acetylation of Chicken Feathers for Thermoplastic Applications**  
Chunyan Hu, Narendra Reddy, Kelu Yan, and Yiqi Yang\*

10524 [dx.doi.org/10.1021/jf2025902](https://doi.org/10.1021/jf2025902)  
**Acid–Chlorite Pretreatment and Liquefaction of Cornstalk in Hot-Compressed Water for Bio-oil Production**  
Hua-Min Liu, Bing Feng, and Run-Cang Sun\*

### Chemical Aspects of Food Safety

10532 [dx.doi.org/10.1021/jf2020446](https://doi.org/10.1021/jf2020446)  
**Children's Exposure to Di(2-ethylhexyl)phthalate and Dibutylphthalate Plasticizers from School Meals**  
Teresa Cirillo,\* Evelina Fasano, Enrica Castaldi, Paolo Montuori, and Renata Arnodio Cocchieri

## Chemical Changes Induced by Processing/Storage

10539 [dx.doi.org/10.1021/jf2019566](https://doi.org/10.1021/jf2019566)

Encapsulation of the Ethylene Inhibitor 1-Methylcyclopropene by Cucurbit[6]uril

Quan Zhang, Zeng Zhen, Hong Jlang,\* Xue-Gang Li, and Jun-An Liu

10546 [dx.doi.org/10.1021/jf202220z](https://doi.org/10.1021/jf202220z)

Cross-Linking of Interfacial Layers Affects the Salt and Temperature Stability of Multilayered Emulsions Consisting of Fish Gelatin and Sugar Beet Pectin

Benjamin Zeeb, Lutz Fischer, and Jochen Weiss\*

10556 [dx.doi.org/10.1021/jf202358m](https://doi.org/10.1021/jf202358m)

Tocopherol and Ascorbate Have Contrasting Effects on the Viability of Microencapsulated *Lactobacillus rhamnosus* GG

DanYang Ying, Luz Sanguansri, Rangika Weerakkody, Tanoj K. Singh, Susetta Freimüller Leischfeld, Corinne Gantenbein-Demarchi, and Mary Ann Augustin\*

## Chemical Composition of Foods/Feeds

10564 [dx.doi.org/10.1021/jf202762b](https://doi.org/10.1021/jf202762b)

Genotype and Environment Effects on the Contents of Vitamins B1, B2, B3, and B6 in Wheat Grain

Peter R. Shewry,\* Frank Van Schaik, Catherine Ravel, Gilles Charmet, Mariann Rakszegi, Zoltan Bedo, and Jane L. Ward

10572 [dx.doi.org/10.1021/jf203493k](https://doi.org/10.1021/jf203493k)

Nitrocapsanthin and Nitrofucoxanthin, Respective Products of Capsanthin and Fucoxanthin Reaction with Peroxynitrite

Makoto Tsuboi, Hideo Etoh, Kyuki Kato, Hiroki Nakatugawa, Hideki Kato, Yasunori Maejima, Gaku Matsumoto, Hironobu Mori, Masashi Hosokawa, Kazuo Miyashita, Harukuni Tokuda, Nobukuni Suzuki, and Takashi Maoka\*

10579 [dx.doi.org/10.1021/jf202304z](https://doi.org/10.1021/jf202304z)

Metabolic Dependence of Green Tea on Plucking Positions Revisited: A Metabolomic Study

Jang-Eun Lee, Bum-Jin Lee, Jeong-ah Hwang, Kwang-Sup Ko, Jin-Oh Chung, Eun-Hee Kim, Sang-Jun Lee, and Young-Shick Hong\*

10586 [dx.doi.org/10.1021/jf202438d](https://doi.org/10.1021/jf202438d)

Survey of Polyphenol Constituents in Grapes and Grape-Derived Products

Yanping Xu, James E. Simon, Cara Welch, JoLynne D. Wightman, Mario G. Ferruzzi, Lap Ho, Giulio M. Passinetti, and Qingli Wu\*

10594 [dx.doi.org/10.1021/jf202697j](https://doi.org/10.1021/jf202697j)

Analysis of Flavan-3-ols and Procyanidins in Food Samples by Reversed Phase High-Performance Liquid Chromatography Coupled to Electrospray Ionization Tandem Mass Spectrometry (RP-HPLC-ESI-MS/MS)

Sebastian Rzeppa, Christoph Von Bergen, Katharina Bittner, and Hans-Ulrich Humpf\*

10604 [dx.doi.org/10.1021/jf2031549](https://doi.org/10.1021/jf2031549)

Characterization of Lignin Structures and Lignin–Carbohydrate Complex (LCC) Linkages by Quantitative <sup>13</sup>C and 2D HSQC NMR Spectroscopy

Tong-Qi Yuan, Shao-Ni Sun, Feng Xu,\* and Run-Cang Sun\*

## Crop and Animal Protection Chemistry

10615 [dx.doi.org/10.1021/jf2029708](https://doi.org/10.1021/jf2029708)

Design, Synthesis, Crystal Structure Analysis, and Insecticidal Evaluation of Phenylazoneonicotinoids

Zhenjun Ye, Shuang Xia, Xusheng Shao, Jiagao Cheng, Xiaoyong Xu, Zhiping Xu, Zhong Li,\* and Xuhong Qian

## Environmental Chemistry

10624 [dx.doi.org/10.1021/jf203254k](https://doi.org/10.1021/jf203254k)

Varietal Relationship between Instrumental Skin Hardness and Climate for Grapevines (*Vitis vinifera* L.)

Luca Rolfe, Vincenzo Gerbi, Anna Schneider, Federico Spanna, and Susana Rio Segade\*

10635 [dx.doi.org/10.1021/jf2020655](https://doi.org/10.1021/jf2020655)

Potential Diffusion of Doramectin into a Soil Amended with Female Pig Manure. A Field Experiment

María Del Mar Gil-Díaz,\* Araceli Pérez-Sanz, Margarita Martín, and María Carmen Lobo

## Flavors and Aromas/Chemosensory Perception

10641 [dx.doi.org/10.1021/jf2018676](https://doi.org/10.1021/jf2018676)

Influence of Grape-Harvesting Steps on Varietal Thiol Aromas in Sauvignon blanc Wines

Thomas Allen, Mandy Herbst-Johnstone, Melanie Girault, Paul Butler, Gerard Logan, Sara Jouanneau, Laura Nicolau, and Paul A. Kilmartin\*

10651 [dx.doi.org/10.1021/jf202120d](https://doi.org/10.1021/jf202120d)

Sensory Characteristics and Volatile Profiles of Parsley (*Petroselinum crispum* [Mill.] Nym.) in Correlation to Resistance Properties against *Septoria* Blight (*Septoria petroselinii*)

Detlef Ulrich,\* Tobias Bruchmüller, Hans Krüger, and Frank Marthe

10657 [dx.doi.org/10.1021/jf2026204](https://doi.org/10.1021/jf2026204)  
Comparison of Odor-Active Compounds in Grapes and Wines from *Vitis vinifera* and Non-Foxy American Grape Species  
Qun Sun, Matthew J. Gates, Edward H. Lavin, Terry E. Acree, and Gavin L. Sacks\*

### Food Chemistry/Biochemistry

10665 [dx.doi.org/10.1021/jf200973x](https://doi.org/10.1021/jf200973x)  
Characteristics of Pregelatinized *Ae* Mutant Rice Flours Prepared by Boiling after Preroasting  
Sumiko Nakamura, Hikaru Satoh, and Ken'ichi Ohtsubo\*

10677 [dx.doi.org/10.1021/jf201925g](https://doi.org/10.1021/jf201925g)  
Protein-Binding Affinity of *Leucaena* Condensed Tannins of Differing Molecular Weights  
Xiao Dan Huang, Juan Boo Liang,\* Hui Yin Tan, Rosiyah Yahya, Ruijun Long, and Yin Wan Ho

10683 [dx.doi.org/10.1021/jf2020683](https://doi.org/10.1021/jf2020683)  
Synthesis of Carboxymethylated and Quaternized Chitosans and Their Therapeutic Effect on Nonalcoholic Fatty Liver Disease  
Xiaofei Liu,\* Fan Yang, Tao Song, Anrong Zeng, Qi Wang, Zhong Sun, and Jun Shen

10693 [dx.doi.org/10.1021/jf202161a](https://doi.org/10.1021/jf202161a)  
Characterization of Codon-Optimized Recombinant *Candida rugosa* Lipase 5 (LIP5)  
Li-Chiun Lee, Chih-Chung Yen, Conmar C. Malmis, Long-Fang Chen, Jen-Chieh Chen, Guan-Chiun Lee,\* and Jei-Fu Shaw\*

10699 [dx.doi.org/10.1021/jf202279r](https://doi.org/10.1021/jf202279r)  
Effect of Buckwheat Extract on the Antioxidant Activity of Lipid in Mouse Brain and Its Structural Change during *In Vitro* Human Digestion  
Sun-Jin Hur, Soo-Jeong Park, and Chang-Ho Jeong\*

10705 [dx.doi.org/10.1021/jf202472p](https://doi.org/10.1021/jf202472p)  
Study of Influential Factors on Oligosaccharide Formation by Fructosyltransferase Activity during Stachyose Hydrolysis by Pectinex Ultra SP-L  
Antonia Montilla, Agustín Olano, Cristina Martínez-Villaluenga, and Nieves Corzo\*

10712 [dx.doi.org/10.1021/jf202495b](https://doi.org/10.1021/jf202495b)  
Using High Intensity Ultrasound as a Tool To Change the Functional Properties of Interesterified Soybean Oil  
Yubin Ye, Ashwini Wagh, and Silvana Martini\*

10723 [dx.doi.org/10.1021/jf2025659](https://doi.org/10.1021/jf2025659)  
Profiling of Hepatic Gene Expression of Mice Fed with Edible Japanese Mushrooms by DNA Microarray Analysis: Comparison among *Pleurotus ostreatus*, *Grifola frondosa*, and *Hypsizigus marmoreus*  
Mayumi Sato,\* Yoshihiko Tokuji, Shozo Yoneyama, Kyoko Fujii-Akiyama, Mikio Kinoshita, and Masao Ohnishi

10732 [dx.doi.org/10.1021/jf2026583](https://doi.org/10.1021/jf2026583)  
Novel Synthesis of Steryl Esters from Phytosterols and Amino Acid  
Min Pang, Shaotong Jiang,\* Lili Cao, and Lijun Pan

10737 [dx.doi.org/10.1021/jf202722w](https://doi.org/10.1021/jf202722w)  
Characterization and Antioxidant Activity of the Complex of Tea Polyphenols and Oat  $\beta$ -Glucan  
Zhen Wu, Jian Ming, Ruiping Gao, Yuxue Wang, Qiang Liang, Huaguang Yu,\* and Guohua Zhao\*

### Molecular Nutrition

10747 [dx.doi.org/10.1021/jf2029829](https://doi.org/10.1021/jf2029829)  
Noncovalent Interaction of Dietary Polyphenols with Common Human Plasma Proteins  
Jianbo Xiao,\* Yaru Zhao, Hui Wang, Yongming Yuan, Fan Yang, Chao Zhang, and Koichiro Yamamoto

### Toxicology in Agriculture and Food

10755 [dx.doi.org/10.1021/jf203061p](https://doi.org/10.1021/jf203061p)  
Degradation of Ochratoxin A by *Brevibacterium* Species  
Hector Rodriguez, Ines Reveron, Francesca Doria, Antonella Costantini, Blanca De Las Rivas, Rosario Muñoz, and Emilia Garcia-Moruno\*

10761 [dx.doi.org/10.1021/jf2027523](https://doi.org/10.1021/jf2027523)  
Investigation of Flavonoids Bearing Different Substituents on Ring C and Their  $\text{Cu}^{2+}$  Complex Binding with Bovine Serum Albumin: Structure–Affinity Relationship Aspects  
Shuyun Shi,\* Yuping Zhang, Xiaoqin Chen, and Mijun Peng

### Correspondence/Rebuttal

10770 [dx.doi.org/10.1021/jf201509k](https://doi.org/10.1021/jf201509k)  
Comment on Hydroxytyrosol Induces Proliferation and Cytoprotection against Oxidative Injury in Vascular Endothelial Cells: Role of Nrf2 Activation and HO-1 Induction  
Sebastian Schaffer and Barry Halliwell\*

## Additions and Corrections

10772

[dx.doi.org/10.1021/jf203581g](https://doi.org/10.1021/jf203581g)

Correction to Effect of Simultaneous Consumption of Milk and Coffee on Chlorogenic Acids' Bioavailability in Humans

Giselle S. Duarte, and Adriana Farah\*

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[dx.doi.org/10.1021/jf203649c](https://doi.org/10.1021/jf203649c)

Addition to Determination of Parent and Substituted Polycyclic Aromatic Hydrocarbons in High-Fat Salmon Using a Modified QuEChERS Extraction, Dispersive SPE and GC-MS

Norman D. Forsberg, Glenn R. Wilson and Kim A. Anderson\*