

LWT—Food Science and Technology

CONTENTS

Volume 138, March 2021

Review articles

- Nutritional composition, anti-nutritional factors, pretreatments-cum-processing impact and food formulation potential of faba bean (*Vicia faba* L.): A comprehensive review**
K.A. Rahate, M. Madhumita and P.K. Prabhakar 110796

Research papers

- Effects of post-harvest fungal infection of apples on chemical characteristics of cider**
B. Simonato, M. Lorenzini and G. Zapparoli 110620

- Dipeptidyl peptidase-IV inhibitory activity of millet protein peptides and the related mechanisms revealed by molecular docking**
H. Gu, J. Gao, Q. Shen, D. Gao, Q. Wang, M. Tangyu and X. Mao 110587

- In vitro gastrointestinal digestion and colonic fermentation of phenolic compounds in UV-C irradiated pineapple (*Ananas comosus*) snack-bars**
D. Del juncal-Guzmán, L.M. Hernández-Maldonado, J.A. Sánchez-Burgos, G.A. González-Aguilar, V.M. Ruiz-Valdiviezo, J. Tovar and S.G. Sáyago-Ayerdi 110636

- Performance evaluation of ultra violet assisted vertical re-circulating depuration system on microbial, heavy metal reduction and composition of black clam (*Villorita cyprinoides*)**
S. Anjana, S. Abhilash, B. Varghese, S. Sabu, K.V. Sunooj and K.A.M. Xavier 110628

- Avocado oil encapsulation with OSA-esterified taro starch as wall material: Physicochemical and morphology characteristics**
H.A. Romero-Hernandez, M.M. Sánchez-Rivera, J. Alvarez-Ramirez, H. Yee-Madeira, J. Yañez-Fernandez and L.A. Bello-Pérez 110629

- Integrated microwave- and enzyme-assisted extraction of phenolic compounds from olive pomace**
G.A. Macedo, Á.L. Santana, L.M. Crawford, S.C. Wang, F.F.G. Dias and J.M.L.N. de Moura Bell 110621

- A newly-isolated *Bacillus subtilis* BSC35 produces bacteriocin-like inhibitory substance with high potential to control *Clostridium perfringens* in food**
W.B. Hyun, H.S. Kang, J.W. Lee, H.B. Abraha and K.-P. Kim 110625

- Effects of oxidation on the structure of collagen fibers of sea cucumber (*Apostichopus japonicus*) body wall during thermal processing**
X. Dong, X. Yang, H. Li, H. Che, L. Song, X. Chen, W. Xie and H. Qi 110528

- A systematic study of key odourants, non-volatile compounds, and antioxidant capacity of cascara (dried *Coffea arabica* pulp)**
A. Pua, W.X.D. Choo, R.M.V. Goh, S.Q. Liu, M. Cornuz, K.-H. Ee, J. Sun, B. Lassabliere and B. Yu 110630

- Microbial transglutaminase-induced cross-linking of sodium caseinate as the coating stabilizer of zein nanoparticles**
J. Liu, Y. Zhang, S. He, A. Zhou, B. Gao, M. Yan and L. Yu 110624

- The effect of furcellaran or κ-carrageenan addition on the textural, rheological and mechanical vibration damping properties of restructured chicken breast ham**
Z. Polášek, R.N. Salek, M. Vašina, A. Lyčková, R. Gál, V. Pachlová and F. Buňka 110623

- Synergistic effect of citral and carvacrol and their combination with mild heat against *Cronobacter sakazakii* CICC 21544 in reconstituted infant formula**
Y. Cao, D. Zhou, X. Zhang, X. Xiao, Y. Yu and X. Li 110617

- Impact of capsaicin on aroma release and perception from flavoured solutions**
N. Yang, Q. Yang, J. Chen and I. Fisk 110613

- Thermal inactivation of pectin methylesterase from different potato cultivars (*Solanum tuberosum* L.)**
L.G. Moens, E. De Laet, J.-C. Van Ceunebroeck, A.M. Van Loey and M.E.G. Hendrickx 110600

- Multiple hurdle technology to improve microbial safety, quality and oxidative stability of refrigerated raw beef**
A. Ishaq, Q.A. Syed, P.D. Ebner and H. Ubaid ur Rahman 110529
- Kinetic models applied to quality change and shelf life prediction of kiwifruits**
W. Zhang, Z. Luo, A. Wang, X. Gu and Z. Lv 110610
- Enhancing rheological performance of laminated dough with whole wheat flour by vital gluten addition**
A. Selaković, I. Nikolić, L. Dokić, D. Šoronja-Simović, O. Šimurina, J. Zahorec and Z. Šereš 110604
- Aroma and flavor profile of raw and roasted *Agaricus bisporus* mushrooms using a panel trained with aroma chemicals**
X. Du, J. Sissons, M. Shanks and A. Plotto 110596
- Dynamic streamlined extraction of iridoids, anthocyanins and lipids from haskap berries**
A. Sainz-Martinez, C. Kompoiner, C. Haselmaier-Gosch, M. Mikulic-Petkovsek, K. Schröder and H. Halbwirth 110633
- Assessment of enzymatic hydrolysis of lactose in lactose-free milk production - A comparative study using capillary zone electrophoresis and cryoscopy**
L.N.d.O. Neves and M.A.L. de Oliveira 110585
- Tuning structure and properties of gelatin edible films through pullulan dialdehyde crosslinking**
J. Liu, L. Zhang, C. Liu, X. Zheng and K. Tang 110607
- Effect of ultrasound-assisted osmotic dehydration pretreatment on the drying characteristics and quality properties of Sanhua plum (*Prunus salicina* L.)**
L. Li, Y. Yu, Y. Xu, J. Wu, Y. Yu, J. Peng, K. An, B. Zou and W. Yang 110653
- Delaying the postharvest quality modifications of *Cantharellus cibarius* mushroom by applying citric acid and modified atmosphere packaging**
B. Ozturk, E. Havsut and K. Yildiz 110639
- Phase inversion emulsification of different vegetable oils using surfactant mixture of cremophor EL and lipase-synthesized glucose monooleate**
K.A. Ishak, M.F.A. Fadzil and M.S.M. Annuar 110568
- Palm-based fat crystallized at different temperatures with and without high-intensity ultrasound in batch and in a scraped surface heat exchanger**
T.L.T. da Silva, S. Danthine and S. Martini 110593
- Bacterial diversity of traditional fermented milks from Cameroon and safety and antifungal activity assessment for selected lactic acid bacteria**
F.S. Nodem Sohanang, M. Coton, S. Debaets, E. Coton, L. Ngoune Tatsadjieu and B.A. Mohammadou 110635
- Mapping of fatty acids composition in shelled almonds analysed in bulk using a Hyperspectral Imaging system**
I. Torres, D. Pérez-Marín, M. Vega-Castellote and M.-T. Sánchez 110678
- Bioactive edible films: Development and characterization of gelatin edible films incorporated with casein phosphopeptides**
S. Khedri, E. Sadeghi, M. Rouhi, Z. Delshadian, A.M. Mortazavian, J. de Toledo Guimarães, M. fallah and R. Mohammadi 110649
- Characterization of the key taste compounds during bread oral processing by instrumental analysis and dynamic sensory evaluation**
D. Pu, Y. Zhang, B. Sun, F. Ren, H. Zhang, H. Chen and Y. Tang 110641
- Effect and mechanism of psyllium husk (*Plantago ovata*) on myofibrillar protein gelation**
Y. Zhou, H. Dai, L. Ma, Y. Yu, H. Zhu, H. Wang and Y. Zhang 110651
- Chemometric analysis of elements content in Algerian spices and aromatic herbs**
A.G. Potorti, V. Lo Turco and G. Di Bella 110643
- Preliminary study of the effect of cation-exchange resin treatment on the aging of tempranillo red wines**
A.M. Mislata, M. Puxeu, E. Nart, S. de Lamo and R. Ferrer-Gallego 110669
- Improving the microbiological quality, health benefits, and storage time of cold-stored ground mutton supplemented with black seed**
M.M. Mahros, S.M. Abd-Elghany, M.Z. Sayed-Ahmed, S.S. Alqahtani and K.I. Sallam 110673
- Enzymatic modification of rice bran protein: Impact on structural, antioxidant and functional properties**
T.P. Singh, R.A. Siddiqi and D.S. Sogi 110648
- Chemical composition and *in vitro* antioxidant and antihyperglycemic activities of clove, thyme, oregano, and sweet orange essential oils**
M. Radünz, T. Mota Camargo, H.C.d. Santos Hackbart, P. Inchauspe Correa Alves, A.L. Radünz, E. Avila Gandra and E. da Rosa Zavareze 110632
- Enhanced pink-red hues in processed powders from unfermented cacao beans**
C.C. Montoya, W.G. Valencia, J.A. Sierra and L. Penagos 110671
- Evaluation of meat-quality and myofibrillar protein of chicken drumsticks treated with plasma-activated lactic acid as a novel sanitizer**
J. Qian, C. Wang, H. Zhuang, M.M. Nasiru, J. Zhang and W. Yan 110642
- Pulsed electric field pretreatment modifying digestion, texture, structure and flavor of rice**
T.-G. Bai, L. Zhang, J.-Y. Qian, W. Jiang, M. Wu, S.-Q. Rao, Q. Li, C. Zhang and C. Wu 110650
- Effect of sodium bicarbonate on quality of machine-made Kongxin noodles**
J.-R. Wang, X.-N. Guo, Z. Yang and K.-X. Zhu 110670

- 116450 Long-term trends of microplastics in seawater and farmed oysters in the Maowei Sea, China**
J. Zhu, Q. Zhang, Y. Huang, Y. Jiang, J. Li, J.J. Michal, Z. Jiang, Y. Xu, W. Lan
U-shaped time trends of microplastics in water were observed in 2018 in the Maowei Sea, and no bioaccumulation of microplastics in oysters after one year of monitoring.
- 116487 The call for regional design code from the regional discrepancy of microbial communities in activated sludge**
B. Zhang, D. Ning, J.D. Van Nostrand, C. Sun, Y. Yang, J. Zhou, X. Wen
- 116481 Contribution of phenanthrene in different binding sites to its biodegradation in biochar-amended soils**
Z. Ding, J. Huang, J. Chi
- 116468 Trophic transfer of microplastics from mysids to fish greatly exceeds direct ingestion from the water column**
T. Hasegawa, M. Nakaoka
- 116458 Serum polychlorinated biphenyl (PCB) levels and risk of testicular germ cell tumors: A population-based case-control study in Connecticut and Massachusetts**
Z. Cheng, X. Zhang, B. Bassig, R. Hauser, T.R. Holford, E. Zheng, D. Shi, Y. Zhu, S.M. Schwartz, C. Chen, K. Shi, B. Yang, Z. Qian, P. Boyle, T. Zheng
- 116417 Bioburden in sleeping environments from Portuguese dwellings**
C. Viegas, M. Dias, A. Monteiro, T. Faria, J. Lage, E. Carolino, L.A. Caetano, A.Q. Gomes, S.M. Almeida, S.C. Verde, J. Belo, N. Canha
Capsule: Our bodies are the source of the majority of the bacteria found in the sleeping environments and toxigenic fungal species and indicators of harmful contamination were observed.
- 116475 Atmospheric particulate represents a source of C₈-C₁₂ perfluoroalkyl carboxylates and 10:2 fluorotelomer alcohol in tree bark**
N. Zhao, M. Zhao, W. Liu, H. Jin
- 116456 Spatiotemporal mapping and assessment of daily ground NO₂ concentrations in China using high-resolution TROPOMI retrievals**
S. Wu, B. Huang, J. Wang, L. He, Z. Wang, Z. Yan, X. Lao, F. Zhang, R. Liu, Z. Du
- 116490 Automatic detection and quantification of floating marine macro-litter in aerial images: Introducing a novel deep learning approach connected to a web application in R**
O. Garcia-Garin, T. Monleón-Getino, P. López-Brosa, A. Borrell, A. Aguilar, R. Borja-Robalino, L. Cardona, M. Vighi
- 116461 An efficient phthalate ester-degrading *Bacillus subtilis*: Degradation kinetics, metabolic pathway, and catalytic mechanism of the key enzyme**
Y. Xu, X. Liu, J. Zhao, H. Huang, M. Wu, X. Li, W. Li, X. Sun, B. Sun
- 116486 Strigolactone GR24 improves cadmium tolerance by regulating cadmium uptake, nitric oxide signaling and antioxidant metabolism in barley (*Hordeum vulgare* L.)**
C.-W. Qiu, C. Zhang, N.-H. Wang, W. Mao, F. Wu
- 116510 Highly-efficient green photocatalytic cementitious materials with robust weathering resistance: From laboratory to application**
M.-Z. Guo, T.-C. Ling, C.S. Poon
A highly-efficient green photocatalytic concrete surface layer with robust weathering resistance has been developed and applied in a case study.
- 116460 The occurrence of PFAS in human placenta and their binding abilities to human serum albumin and organic anion transporter 4**
Y. Lu, L. Meng, D. Ma, H. Cao, Y. Liang, H. Liu, Y. Wang, G. Jiang
The main congeners of PFAS in human placentas were legacy PFAS. The binding affinities of PFAS to HSA and OAT4 were closely related to the chain length.
- 116446 Effect of sterilization on cadmium immobilization and bacterial community in alkaline soil remediated by mercapto-palygorskite**
Y. Wang, Y. Xu, Q. Huang, X. Liang, Y. Sun, X. Qin, L. Zhao
The immobilization of MPAL in sterilized soil was significantly better than that in natural soil due to the changes in the abundance and functions of bacterial community.
- 116504 Cadmium promotes breast cancer cell proliferation, migration and invasion by inhibiting ACSS2/ATG5-mediated autophagy**
Y. Liang, H. Pi, L. Liao, M. Tan, P. Deng, Y. Yue, Y. Xi, L. Tian, J. Xie, M. Chen, Y. Luo, M. Chen, L. Wang, Z. Yu, Z. Zhou
ACSS2 overexpression increased the level of H3K27 acetylation in the promoter region of ATG5 and abolished Cd-induced breast cancer progression.
- 116505 Possible overestimation of bisphenol analogues in municipal wastewater analyzed with GC-MS**
H. Wang, Z.-h. Liu, Z. Tang, J. Zhang, Z. Dang, Y. Liu
This work is the first to find that BPA analogues in wastewater analyzed with GC-MS are likely to be overestimated.
- 116493 Differentiation of natural and anthropogenic contaminant sources using isotopic and microbial signatures in a heavily cultivated coastal area**
D. Kaown, E.-H. Koh, B. Mayer, Y. Ju, J. Kim, H.-L. Lee, S.-S. Lee, D.K. Park, K.-K. Lee
Multi-isotope and microbial data combined with groundwater mean residence times successfully revealed the origins of natural and anthropogenic contaminants.
- 116501 Ship fuel sulfur content prediction based on convolutional neural network and ultraviolet camera images**
K. Cao, Z. Zhang, Y. Li, W. Zheng, M. Xie
Main Finding: A CNN-based deep learning model to predict the ship fuel sulfur content without estimating the amount of SO₂ or CO₂ using an ultraviolet camera.
- 116495 Curcumin suppresses cell growth and attenuates fluoride-mediated Caspase-3 activation in ameloblast-like LS8 cells**
N. Fujiwara, G.M. Whitford, J.D. Bartlett, M. Suzuki
Capsule: Curcumin induced Ac-p53 and p21 to suppress cell proliferation and activated Akt signaling to attenuate fluoride-mediated apoptosis and DNA damage in LS8 cells.
- 116451 A temporal record of microplastic pollution in Mediterranean seagrass soils**
M. Dahl, S. Bergman, M. Björk, E. Diaz-Almela, M. Granberg, M. Gullström, C. Leiva-Dueñas, K. Magnusson, C. Marco-Méndez, N. Piñeiro-Juncal, M.Á. Mateo
- 116476 Petroleum hydrocarbon-contaminated soil bioremediation assisted by isolated bacterial consortium and sophorolipid**
L. Feng, X. Jiang, Y. Huang, D. Wen, T. Fu, R. Fu
Capsule: Bioremediation of petroleum hydrocarbon-contaminated soil was facilitated efficiently by isolated indigenous bacterial consortium and sophorolipid.

- 116489 Exposure to ultrafine particles and oral flora, respiratory function, and biomarkers of inflammation: A panel study in children**
H. Li, D. Xu, H. Li, Y. Wu, Y. Cheng, Z. Chen, G. Yin, W. Wang, Y. Ge, Y. Niu, C. Liu, J. Cai, H. Kan, D. Yu, R. Chen
- 116496 Growth and photosynthetic responses of *Ochromonas gloeopara* to cadmium stress and its capacity to remove cadmium**
G. Wu, J. Cheng, J. Wei, J. Huang, Y. Sun, L. Zhang, Y. Huang, Z. Yang
Ochromonas has strong tolerance and capacity to remove Cd, and increasing concentration of phosphorus can increase its capacity to remove Cd.
- 116488 The microbiome of a polluted urban lake harbors pathogens with diverse antimicrobial resistance and virulence genes**
J. Quillaguamán, D. Guzmán, M. Campero, C. Hoepfner, L. Relos, D. Mendieta, S.M. Higdon, D. Eid, C.E. Fernández
Antimicrobial resistance and virulence genes detected in the urban Lake Alalay are commonly described in nosocomial infections.
- 116433 Analysis and occurrence of macrolide residues in stream sediments and underlying alluvial aquifer downstream from a pharmaceutical plant**
I. Senta, S. Terzic, M. Ahel
Macrolide residues persist in pharmaceutically-impacted stream sediments more than ten years after the discharge and reach deeper alluvial sediments and groundwater aquifer.
- 116494 Chronic exposure to PPCPs mixture at environmentally relevant concentrations (ERCs) altered carbohydrate and lipid metabolism through gut and liver toxicity in zebrafish**
N. Hamid, M. Junaid, Y. Wang, S.-Y. Pu, P.-P. Jia, D.-S. Pei
- 116514 Association of air pollution and greenness with carotid plaque: A prospective cohort study in China**
Y. Xie, W. He, X. Zhang, J. Cui, X. Tian, J. Chen, K. Zhang, S. Li, N. Di, H. Xiang, H. Wang, G. Chen, Y. Guo
- 116443 Global characterization of dose-dependent effects of cadmium in clam *Ruditapes philippinarum***
J. Zhan, S. Wang, F. Li, C. Ji, H. Wu
BMD analysis unraveled the sensitiveness of key events to Cd exposure, contributing to better understanding the toxicological mechanisms and biomarker selection.
- 116452 BC and 1,4NQ-BC up-regulate the cytokines and enhance IL-33 expression in LPS pretreatment of human bronchial epithelial cells²¹**
J. Ge, H. Chu, Q. Xiao, W. Hao, J. Shang, T. Zhu, Z. Sun, X. Wei
- 115667 Metagenomic exploration of multi-resistance genes linked to microbial attributes in active nonferrous metal(loid) tailings**
J.-I. Liu, J. Yao, X. Zhu, D.-I. Zhou, R. Duran, V.G. Mihucz, S. Bashir, K.A. Hudson-Edwards
- 115742 History of environmental contamination at Sunny Corner Ag-Pb-Zn mine, eastern Australia: A meta-analysis approach**
A. Kavehei, G.C. Hose, D.B. Gore
Meta-analysis specified significant increase in concentrations of Cu, Zn and Pb in water and Zn in sediment downstream of Sunny Corner legacy mine.
- 116181 Associations of blood lead levels with multiple genotoxic biomarkers among workers in China: A population-based study**
T. Wang, Y. Tu, K. Wang, S. Gong, G. Zhang, Y. Zhang, Y. Meng, T. Wang, A. Li, J. Cui, H. Liu, W. Tang, J. Xi, Y. Cao, Y. Luan, D.C. Christiani, W. Au, Z.-I. Xia
From a large-scale population study, Pb exposure was associated with alteration of mitochondrial DNA copy number, damage in DNA & chromosome and erosion of telomere, but not PIG-A mutation. Our results suggest that clastogenesis but not the mutagenesis is likely the pathway for Pb-induced health hazards.
- 115792 Microplastics in fish meal: Contamination level analyzed by polymer type, including polyester (PET), polyolefins, and polystyrene**
V. Castelvetro, A. Corti, S. Bianchi, G. Giacomelli, A. Manariti, V. Vinciguerra
The first reported analytical procedure for identifying and quantifying the main polymer types as potential contaminant microplastics in fish meal.
- 115808 Mercury exposure in mammalian mesopredators inhabiting a brackish marsh**
S.H. Peterson, J.T. Ackerman, C.A. Hartman, M.L. Casazza, C.L. Feldheim, M.P. Herzog
Hair mercury concentrations in raccoons were among the highest recorded for mammals in North America, with 19% of raccoons demonstrating hair mercury concentrations that may cause adverse health effects. Furthermore, annual mean hair mercury concentrations in raccoons and skunks were related to the size of available wetland habitat.
- 115720 Estimation of hourly PM₁ concentration in China and its application in population exposure analysis**
L. Huang, F. Mao, L. Zang, Y. Zhang, Y. Zhang, T. Zhang
- 115919 Inhibition of ROS/NLRP3/Caspase-1 mediated pyroptosis attenuates cadmium-induced apoptosis in duck renal tubular epithelial cells**
Z. Wei, G. Nie, F. Yang, S. Pi, C. Wang, H. Cao, X. Guo, P. Liu, G. Li, G. Hu, C. Zhang
- 116507 Characteristics of selenium enrichment and assessment of selenium bioavailability using the diffusive gradients in thin-films technique in seleniferous soils in Enshi, Central China**
C. Lyu, Y. Qin, Z. Zhao, X. Liu
- 116515 Occurrence, fate, and persistence of emerging micropollutants in sewage sludge treatment**
M. Dubey, S. Mohapatra, V.K. Tyagi, S. Suthar, A.A. Kazmi
- 116491 Three-dimensional model of magnetic susceptibility in forest topsoil: An indirect method to discriminate contaminant migration**
A. Łukasik, M. Szuszkiewicz, T. Wanic, P. Gruba
We modelled magnetic susceptibility in topsoil in three-dimensional space to introduce a new technique for the interpretation of soil magnetic susceptibility distribution.
- 116426 Nanoplastics impact on marine biota: A review**
J.M. Gonçalves, M.J. Bebianno
- 116518 Quantitative analysis of the main sources of pollutants in the soils around key areas based on the positive matrix factorization method**
P. Qiao, N. Dong, S. Yang, Y. Gou
- 116528 In vitro renal toxicity evaluation of copper-based metal-organic framework HKUST-1 on human embryonic kidney cells**
Y.-C. Chen, K.-Y. Andrew Lin, K.-F. Chen, X.-Y. Jiang, C.-H. Lin
- 116470 Measure-specific environmental benefits of air pollution control for coal-fired industrial boilers in China from 2015 to 2017**
K. Wang, Y. Tong, T. Yue, J. Gao, C. Wang, P. Zuo, J. Liu
- 116502 Predicting the rate constants of volatile organic compounds (VOCs) with ozone reaction at different temperatures**
Y. Liu, S. Liu, Z. Cheng, Y. Tan, X. Gao, Z. Shen, T. Yuan
Similar to E_{HOMO} bond order and fukui indices are also highly correlated with logk₀₃ value, indicating that these two parameters could play an important role in the degradation of VOCs by ozone.
- 116492 Effects of norfloxacin on nitrate reduction and dynamic denitrifying enzymes activities in groundwater**
L. Chen, F. Huang, C. Zhang, J. Zhang, F. Liu, X. Guan

- 116500 Influence of secondary metabolites on surface chemistry and metal adsorption of a devitalized lichen biomonitor**
L. Fortuna, A.G. González, M. Tretiach, O.S. Pokrovsky
Melanised and non-melanised thalli of the devitalized lichen biomonitor Pseudevernia furfuracea have higher binding site concentration than mosses, adsorbing 30% more Zn²⁺, regardless of melanin presence.
- 116503 Nanoselenium foliar application enhances biosynthesis of tea leaves in metabolic cycles and associated responsive pathways**
D. Li, C. Zhou, N. Zou, Y. Wu, J. Zhang, Q. An, J.-Q. Li, C. Pan
Nanoselenium can improve the nutritional quality by adjusting the metabolic cycles and enhancing the responsive pathways under pesticides-induced oxidative stress.
- 116466 Fabrication of thermoresponsive metal-organic nanotube sponge and its application on the adsorption of endocrine-disrupting compounds and pharmaceuticals/personal care products: Experiment and molecular simulation study**
Q. Li, S. Zhu, G. Hao, Y. Hu, F. Wu, W. Jiang
- 116522 Backward modeling of urinary test reliability for assessing PAH health risks: An approximation solution for naphthalene**
Z. Li, X. Zhang, Y. Fu, Y. Xu, J. Chen, S. Lu
- 116506 Unique biocenosis as a foundation to develop a phytobial consortium for effective bioremediation of Cr(VI)-polluted waters and sediments**
J. Augustynowicz, E. Sitek, D. Latowski, K. Wołowski, A. Kowalczyk, R. Przejczowski
- 116517 Nicosulfuron inhibits atrazine biodegradation by *Arthrobacter* sp. DNS10: Influencing mechanisms insight from bacteria viability, gene transcription and reactive oxygen species production**
Z. Jiang, S. Deng, L. Wang, Y. Hu, B. Cao, J. Lv, J. Qu, L. Wang, Y. Wang, Y. Zhang
- 116519 A benchmark dose analysis for urinary cadmium and type 2 diabetes mellitus**
P. Shi, H. Yan, X. Fan, S. Xi
As the T2DM prevalence increased, estimating BMDs and BMDLs of exposure to Cd can help decision-making in developing these standard limits.
- 116521 Drip fertigation with straw incorporation significantly reduces N₂O emission and N leaching while maintaining high vegetable yields in solar greenhouse production**
Y. Zhao, H. Lv, W. Qasim, L. Wan, Y. Wang, X. Lian, Y. Liu, J. Hu, Z. Wang, G. Li, J. Wang, S. Lin, K. Butterbach-Bahl
Drip fertigation combined with straw incorporation significantly reduces N₂O emission and N leaching, improves soil health, while sustaining high yields.
- 116529 Bioaccessibility-corrected health risk of heavy metal exposure via shellfish consumption in coastal region of China**
M. Chai, R. Li, Y. Gong, X. Shen, L. Yu
Shellfish consumed in coastal areas of China were contaminated with heavy metals to some extent, which posed certain carcinogenic risk to the child and adult populations.
- 116473 Forecasting PM_{2.5} using hybrid graph convolution-based model considering dynamic wind-field to offer the benefit of spatial interpretability**
H. Zhou, F. Zhang, Z. Du, R. Liu
Summary of the main finding: The consideration of dynamic wind-field improves the PM_{2.5} prediction accuracy, and it also helps to describe the spatial relationship more precisely and provides spatial interpretability.
- 116462 Responses of the reproduction, population growth and metabolome of the marine rotifer *Brachionus plicatilis* to tributyl phosphate (TnBP)**
X. Zhang, X. Tang, Y. Yang, Z. Sun, W. Ma, X. Tong, C. Wang, X. Zhang
Metabolic disturbances, oxidative stress and mitochondrial dysfunction worked together to alter the reproduction and population growth of rotifer under TnBP stress.
- Short communication**
- 116423 A call to evaluate Plastic's impacts on marine benthic ecosystem interaction networks**
S.M. Ladewig, T.S. Bianchi, G. Coco, J.A. Hope, S.F. Thrush
- Correspondence**
- 116445 SARS-CoV-2 and other pathogens could be determined in liquid samples from soils**
M. Conde-Cid, M. Arias-Estévez, A. Núñez-Delgado