

CONTENTS

REGULAR ARTICLES

- 1 **Food limitation in *Chironomus tepperi*: Effects on survival, sex ratios and development across two generations**
Kallie R. Townsend, Vincent J. Pettigrove and Ary A. Hoffmann
- 9 **Inflammatory and degranulation effect of yellow sand on RBL-2H3 cells in relation to chemical and biological constituents**
Parida Yamada, Tamao Hatta, Mingyuan Du, Kenji Wakimizu, Junkyu Han, Taichi Maki and Hiroko Isoda
- 18 **Identification of nickel response genes in abnormal early developments of sea urchin by differential display polymerase chain reaction**
Tae Kwon Ryu, Gunsup Lee, Yong Rhee, Heung-Sik Park, Man Chang, Sukchan Lee, Jaean Lee and Taek-Kyun Lee
- 25 **Asymmetric patterns in the cranial skeleton of zebrafish (*Danio rerio*) exposed to sodium pentachlorophenate at different embryonic developmental stages**
Faviel López-Romero, Gerardo Zúñiga and Fernando Martínez-Jerónimo
- 32 **Effects of deltamethrin on the specific discrimination of sex pheromones in two sympatric *Trichogramma* species**
Jean-Marie Delpuech, Carole Dupont and Roland Allemand
- 39 **Equilibrium isotherms, kinetics and thermodynamics studies of phenolic compounds adsorption on palm-tree fruit stones**
Muthanna J. Ahmed and Samar K. Theydan
- 46 **Toxic effects of two brominated flame retardants BDE-47 and BDE-183 on the survival and protein expression of the tubificid *Monopylephorus limosus***
K.H. Chiu, C.-R. Lin, H.-W. Huang, J. Shiea and L.L. Liu
- 54 **Assessment of wastewater-irrigated soil containing heavy metals and establishment of specific biomarkers**
F. Ben Fredj, J. Han, M. Irie, N. Funamizu, A. Ghrabi and H. Isoda
- 63 **Distribution patterns and major sources of dioxins in soils of the Changsha-Zhuzhou-Xiangtan urban agglomeration, China**
Bing Yang, Zhiliang Chen, Chaosheng Zhang, Jiahua Dong and Xiaochun Peng
- 70 **A temporal study on fate of Al₂O₃ nanoparticles in a fresh water microcosm at environmentally relevant low concentrations**
Sunandan Pakrashi, Swayamprava Dalai, Ritika, B. Sneha, N. Chandrasekaran and Amitava Mukherjee
- 78 **Occurrence and accumulation of mercury in two species of wild grown *Pleurotus* mushrooms from Southeastern Nigeria**
Innocent C. Nnorom, Grażyna Jarzyńska, Jerzy Falandysz, Małgorzata Drewnowska, Ifunanya Okoye and Chioma G. Oji-Nnorom
- 84 **River waters induced neurotoxicity in an embryo–larval zebrafish model**
Jesús Pablo García-Camero, Myriam Catalá and Yolanda Valcárcel

- 92 **Biomarkers of metal toxicity and histology of *Perna viridis* from Ennore estuary, Chennai, south east coast of India**
Lourduraj Arockia Vasanthi, Peranandam Revathi, Chinnasamy Arulvasu and Natesan Munuswamy
- 99 **Baseline values of Micronuclei and Comet Assay in the lizard *Tupinambis merianae* (Teiidae, Squamata)**
Laura G. Schaumburg, Gisela L. Poletta, Pablo A. Siroski and Marta D. Mudry
- 104 **Effects of arsenic on growth and photosystem II (PSII) activity of *Microcystis aeruginosa***
Shuzhi Wang, Daoyong Zhang and Xiangliang Pan
- 112 **Behavior of mixed formulation of metalaxyl and dimethomorph in grape and soil under field conditions**
Congyun Liu, Kai Wan, Jianxiang Huang, Youcheng Wang and Fuhua Wang
- 117 **Assessment of spatial distribution and potential ecological risk of the heavy metals in relation to granulometric contents of Veeranam lake sediments, India**
G. Suresh, P. Sutharsan, V. Ramasamy and R. Venkatachalapathy
- 125 **Allelopathic and bioherbicidal potential of *Cladonia verticillaris* on the germination and growth of *Lactuca sativa***
R.C. Tigre, N.H. Silva, M.G. Santos, N.K. Honda, E.P.S. Falcão and E.C. Pereira
- 133 **Postmortem stability of brain GABAergic and glutamatergic receptors and enzymes under ecological conditions**
Jennifer Rutkiewicz and Niladri Basu
- 139 **Metabolomic investigation of *Mytilus galloprovincialis* (Lamarck 1819) caged in aquatic environments**
Salvatore Fasulo, Francesco Iacono, Tiziana Cappello, Carmelo Corsaro, Maria Maisano, Alessia D'Agata, Alessia Giannetto, Elena De Domenico, Vincenzo Parrino, Giuseppe Lo Paro and Angela Mauceri
- 147 **Chromium induced stress conditions in heterotrophic and auxotrophic strains of *Euglena gracilis***
Iara Rocchetta, Marcia Mazzuca, Visitación Conforti, Vilma Balzaretto and María del Carmen Ríos de Molina
- 155 **Toxicological effects of nanometer titanium dioxide (nano-TiO₂) on *Chlamydomonas reinhardtii***
Lanzhou Chen, Lina Zhou, Yongding Liu, Songqiang Deng, Hao Wu and Gaohong Wang
- 163 **Metals concentrations in Nile tilapia *Oreochromis niloticus* (Linnaeus, 1758) from illegal fish farm in Al-Minufiya Province, Egypt, and their effects on some tissues structures**
Mohammad M.N. Authman, Wafaa T. Abbas and Alkhateib Y. Gaafar
- 173 **Chelator effects on bioconcentration and translocation of cadmium by hyperaccumulators, *Tagetes patula* and *Impatiens walleriana***
Jhen-Lian Wei, Hung-Yu Lai and Zueng-Sang Chen
- 179 **Changes in body burden of mercury, lead, arsenic, cadmium and selenium in infants during early lactation in comparison with placental transfer**
Mineshi Sakamoto, Hing Man Chan, José L. Domingo, Machi Kubota and Katsuyuki Murata
- 185 **Are metallothioneins equally good biomarkers of metal and oxidative stress?**
Etelvina Figueira, Diana Branco, Sara C. Antunes, Fernando Gonçalves and Rosa Freitas
- 191 **Fate of isotopically labeled zinc oxide nanoparticles in sediment and effects on two endobenthic species, the clam *Scrobicularia plana* and the ragworm *Hediste diversicolor***
Pierre-Emmanuel Buffet, Claude Amiard-Triquet, Agnieszka Dybowska, Christine Risso-de Faverney, Marielle Guibbolini, Eugénia Valsami-Jones and Catherine Mouneyrac
- 199 **Implications of cytochrome 450 isoenzymes, aryl-esterase and oxonase activity in the inhibition of the acetylcholinesterase of *Chirostoma jordani* treated with phosphorothionate pesticides**
Ricardo Dzul-Caamal, M. Lilia Domínguez-López, Ethel García-Latorre and Armando Vega-López
- 207 **Field and laboratory fish tissue accumulation of the anti-convulsant drug carbamazepine**
Santos N. Garcia, Michael Foster, Lisa A. Constantine and Duane B. Huggett
- 212 **Environmental hazard assessment of coal fly ashes using leaching and ecotoxicity tests**
V. Tsiridis, M. Petala, P. Samaras, A. Kungolos and G.P. Sakellaropoulos
- 221 **A lower limit of detection for atrazine was obtained using bioluminescent reporter bacteria via a lower incubation temperature**
Kun Jia, Evgeni Eltzov, Timothée Toury, Robert S. Marks and Rodica E. Ionescu
- 227 **Influence of bioturbation on bioavailability and toxicity of PAHs in sediment from an electronic waste recycling site in South China**
Junxiao Pang, Baoquan Sun, Huizhen Li, W. Tyler Mehler and Jing You

- 234 **Sorption behavior of sulfamethazine on unamended and manure-amended soils and short-term impact on soil microbial community**
Maria Vittoria Pinna, Paola Castaldi, Pietrino Deiana, Alba Pusino and Giovanni Garau
- 243 **Managing metolachlor and atrazine leaching losses using lignite fly ash**
Rakesh Kumar Ghosh and Neera Singh
- 249 **The effects of increased freshwater salinity in the bioavailability of metals (Cr, Pb) and effects on antioxidant systems of *Oreochromis niloticus***
E. Baysoy, G. Atli, C.Ö. Gürler, Z. Dogan, A. Eroglu, K. Kocalar and M. Canli
- 254 **Immunological impacts of oil sands-affected waters on rainbow trout evaluated using an in situ exposure**
Sean A. McNeill, Collin J. Arens, Natacha S. Hogan, Bernd Köllner and Michael R. van den Heuvel
- 262 **Dechloranes in a river in northeastern China: Spatial trends in multi-matrices and bioaccumulation in fish (*Enchelyopus elongatus*)**
Luo Wang, Hongliang Jia, Xianjie Liu, Meng Yang, Wenjun Hong, Yeqing Sun, Yushan Su, Hong Qi, Weiwei Song, Jun Lin and Yi-Fan Li
- 268 **Light induced degradation of phorbol esters**
Bu Yunping, Bui Thi Ngoc Ha, Yeo Eunice, Lo Loong Chueng and Hong Yan
- 274 **Biodegradability, toxicity and mutagenicity of detergents: Integrated experimental evaluations**
Roberta Pedrazzani, Elisabetta Ceretti, Ilaria Zerbini, Rosario Casale, Eleonora Gozio, Giorgio Bertanza, Umberto Gelatti, Francesco Donato and Donatella Feretti
- 282 **QSAR study of liver specificity of carcinogenicity of N-nitroso compounds**
Jintao Yuan, Yuepu Pu and Lihong Yin
- 293 **Cryopreserved semen in ecotoxicological bioassays: Sensitivity and reliability of cryopreserved *Sparus aurata* spermatozoa**
Adele Fabbrocini, Raffaele D'Adamo, Francesco Del Prete, Antonio Luca Langellotti, Francesca Rinna, Fausto Silvestri, Gerarda Sorrenti, Valentina Vitiello and Giovanni Sansone
- 299 **The effects of urbanization on *Lepomis macrochirus* using the comet assay**
Ryan R. Otter, John Meier, Kevin M. Kubach, James M. Lazorchak and Stephen J. Klaine
- 304 **Risk assessment and sources of polycyclic aromatic hydrocarbons in agricultural soils of Huanghuai plain, China**
Bing Yang, Nandong Xue, Lingli Zhou, Fasheng Li, Xin Cong, Baolu Han, Huiying Li, Yunzhong Yan and Bo Liu
- 311 **Application of biomarkers in mudskipper (*Boleophthalmus dussumieri*) to assess polycyclic aromatic hydrocarbons (PAHs) pollution in coastal areas of the Persian Gulf**
Mahmood Sinaei, Peyman Eghtesadi araghi, Ali Mashinchian, Mohamadreza Fatemi and Gholamhossein Riazi
- 319 **Effect of landfill leachate on oxidative stress of brain structures and liver from rodents: Modulation by photoelectrooxidation process**
Karine Bertoldi, Christiano Spindler, Felipe dos Santos Moysés, Cláudia Vanzella, Gisele Agustini Lovatel, Viviane Rostirola Elsner, Marco Antônio Siqueira Rodrigues and Ionara Rodrigues Siqueira
- 325 **Musks and organochlorine pesticides in breast milk from Shanghai, China: Levels, temporal trends and exposure assessment**
Jing Zhou, Xiangying Zeng, Kewen Zheng, Xuejing Zhu, Li Ma, Qing Xu, Xiaolan Zhang, Yingxin Yu, Guoying Sheng and Jiamo Fu
- 334 **An integrated assessment of estrogenic contamination and feminization risk in fish in Taihu Lake, China**
Zhenhua Yan, Guanghua Lu, Jianchao Liu and Shaoge Jin
- 341 **Effect of copper stress on cup lichens *Cladonia humilis* and *C. subconistea* growing on copper-hyperaccumulating moss *Scopelophila cataractae* at copper-polluted sites in Japan**
Hiromitsu Nakajima, Kenjiro Fujimoto, Azusa Yoshitani, Yoshikazu Yamamoto, Haruka Sakurai and Kiminori Itoh
- 347 **Using the enzymatic and non-enzymatic antioxidant defense system of the land snail *Eobania vermiculata* as biomarkers of terrestrial heavy metal pollution**
Nahla S. El-Shenawy, Amaal Mohammadden and Zahra Hessenan Al-Fahmie
- 355 **PCB concentrations in freshwater wild brown trouts (*Salmo trutta trutta* L) from Marche rivers, Central Italy**
Arianna Piersanti, Michele Amorena, Maurizio Manera, Tamara Tavoloni, Carmela Lestingi and Monia Perugini

RETRACTION

**360 Retraction notice to “Effect of cadmium on resumption of respiration in cotyledons of germinating pea seeds”
[Ecotoxicol. Environ. Saf. 73(6) (2010) 1246–1254]**

Moêz Smiri, Abdelilah Chaoui, Nicolas Rouhier, Eric Gelhaye, Jean-Pierre Jacquot and Ezzedine El Ferjani