

Capitolo di libro

1. A. Rubino, J. Almeida, C. Magro, P.G. Schiavi, P. Guedes, N. Couto, E. P. Mateus, P. Altimari, **M.L. Astolfi**, R. Zanoni, A. B. Ribeiro, F. Pagnanelli. Nanostructured TiO₂-Based Hydrogen Evolution Reaction (HER) Electrocatalysts: A Preliminary Feasibility Study in Electrodialytic Remediation with Hydrogen Recovery. In Ribeiro AB, Vara Prasad MN, editors, *Electrokinetic Remediation for Environmental Security and Sustainability*. Wiley (2021) 227-249. DOI: 10.1002/9781119670186.ch10.

Pubblicazioni su riviste internazionali

- L1. L. Massimi, **M.L. Astolfi**, S. Canepari. Simple and efficient method to detach intact pm10 from field filters: elements recovery assessment. *Atmospheric Pollution Research*. *accepted*.
- L2. M.E. Conti, **M.L. Astolfi**, M.G. Finoia, L. Massimi, S. Canepari. Biomonitoring of element contamination in bees and beehive products in the Rome province (Italy). *Environmental Science and Pollution Research*, Jan 21. doi: 10.1007/s11356-021-18072-3.
- L3. **M.L. Astolfi***, F. Marini, M.A. Frezzini, L. Massimi, A.L. Capriotti, C.M. Montone, S. Canepari. Multi-element characterization of the Italian extra-virgin olive oils by chemometrics. *Frontiers in Chemistry*, 9 (2021) 769620. doi: 10.3389/fchem.2021.769620.
- L4. F. Di Caprio, A. Pellini, R. Zanoni, **M.L. Astolfi**, P. Altimari, F. Pagnanelli. Two-phase synthesis of Fe-loaded hydrochar for As removal: the distinct effects of initial pH, reaction time and Fe/hydrochar ratio *Journal of Environmental Management* 302 (2022) 114058. doi: 10.1016/j.jenvman.2021.114058.
- L5. A. Antonucci, C. Protano, **M.L. Astolfi**, V. Mattei, F. Santilli, S. Martellucci, M. Vitali. Exposure profile to traffic related pollution in pediatric age: a biomonitoring study. *International Journal of Environmental Research and Public Health* 18 (2021) 10118. doi: 10.3390/ijerph181910118.
- L6. **M.L. Astolfi***, M.E. Conti, M. Ristorini, M.A. Frezzini, L. Massimi, S. Canepari. An analytical method for the biomonitoring of mercury in bees and beehive products by cold vapor atomic fluorescence spectrometry. *Molecules* 26 (2021) 4878. doi: 10.3390/molecules26164878.
- L7. **M.L. Astolfi**, F. Castellani, P. Avino, A. Antonucci, S. Canepari, C. Protano, M. Vitali. Reusable water bottles: release of inorganic elements, phthalates, and bisphenol A in a “real use” simulation experiment. *Separations* 8 (2021) 126. doi: 10.3390/separations8080126.
- L8. F. Buonauro, **M.L. Astolfi**, D. Pignini, G. Tranfo, S. Canepari, A. Pietroiusti, I. D’Alessandro, R. Sisto. Oxidative stress biomarkers in urine of metal carpentry workers can be diagnostic for occupational exposure to low level of welding fumes associated metals. *Cancers* 13 (2021) 3167. DOI: 10.3390/cancers13133167. Impact Factor: 6.126.
- L9. L. Massimi, J. Wesseling, S. van Ratingen, I. Javed, M.A. Frezzini, **M.L. Astolfi**, S. Canepari, R. Vermeulen. Identification and spatial mapping of tracers of PM10 emission sources using a high spatial resolution distributed network in an urban setting. *Atmospheric Research* 262 (2021) 105771. DOI: 10.1016/j.atmosres.2021.105771. Impact Factor: 5.369.
- L10. **M.L. Astolfi**, D. Marotta, V. Cammalleri, E. Marconi, A. Antonucci, P. Avino, S. Canepari, M. Vitali, C. Protano. Determination of 40 elements in powdered infant formulas and related risk assessment. *International Journal of Environmental Research and Public Health* 18 (2021) 5073. DOI: 10.3390/ijerph18105073.
- L11. **M.L. Astolfi***, E. Marconi, G. Vitiello, L. Massimi. An optimized approach for sample preparation and elemental analysis of extra-virgin olive oil by inductively coupled plasma mass spectrometry, *Food Chemistry* 360 (2021) 130027. DOI: 10.1016/j.foodchem.2021.130027.

- L12.** F. Castellani, L. Manzoli, C. Acuti Martellucci, M.E. Flacco, **M.L. Astolfi**, L. Fabiani, R. Mastrantonio, P. Avino, C. Protano, M. Vitali. Free-range eggs from a very polluted site in central Italy: levels of Polychlorinated Dibenzo-p-Dioxins/Furans and Polychlorinated Biphenyls and estimated human dietary exposure. *Journal of Food Protection* 84(8) (2021) 1455-1462. DOI: 10.4315/JFP-21-126.
- L13.** **M.L. Astolfi***, D. Ginese, R. Ferrante, E. Marconi, A.M. Girelli, S. Canepari. On-line separation and determination of trivalent and hexavalent chromium with a new liquid membrane annular contactor coupled to inductively coupled plasma optical emission spectrometry, *Processes* 9 (2021) 536. DOI: 10.3390/pr9030536. Impact Factor: 2.753.
- L14.** M. Vitali, F. Castellani, G. Fragassi, A. Mascitelli, C. Martellucci, G. Diletti, E. Scamosci, **M.L. Astolfi**, L. Fabiani, R. Mastrantonio, C. Protano, V.R. Spica, L. Manzoli. Environmental status of an Italian site highly polluted by illegal dumping of industrial wastes: The situation 15 years after the judicial intervention. *Science of the Total Environment* 762 (2021) 144100. DOI: 10.1016/j.scitotenv.2020.144100. Impact factor: 6.551.
- L15.** A. Lai, **M.L. Astolfi**, V. Bertelli, V. Gatto Agostinelli, M. Zeppilli, M. Majone. Chromate fate and effect in bioelectrochemical systems for remediation of chlorinated solvents. *New Biotechnology* 60 (2021) 27–35. DOI: 10.1016/j.nbt.2020.06.006. Impact factor: 4.674.
- L16.** **M.L. Astolfi***, M. Vitali, E. Marconi, S. Martellucci, V. Mattei, S. Canepari, C. Protano. Urinary mercury levels and predictors of exposure among a group of Italian children. *International Journal of Environmental Research and Public Health* 17 (2020) 9225. DOI: 10.3390/ijerph17249225. Impact Factor: 2.849.
- L17.** F. Buonauro, **M.L. Astolfi**, S. Canepari, M. Di Basilio, R. Gibilras, M. Mecchia, M. Papacchini, E. Paci, D. Pigni, G. Tranfo. Urinary Oxidative Stress Biomarkers in Workers of a Titanium Dioxide Based Pigment Production Plant. *International Journal of Environmental Research and Public Health* 17 (2020) 9085. DOI: 10.3390/ijerph17239085. Impact Factor: 2.849.
- L18.** **M.L. Astolfi***, G. Pietris, C. Mazzei, E. Marconi, S. Canepari. Element levels and predictors of exposure in the hair of Ethiopian children. *International Journal of Environmental Research and Public Health* 17 (2020) 8652. DOI:10.3390/ijerph17228652. Impact Factor: 2.849.
- L19.** **M.L. Astolfi***, M.E. Conti, E. Marconi, L. Massimi, S. Canepari. Effectiveness of different sample treatments for elemental characterization of bees and beehive products. *Molecules* 25 (2020) 4263. DOI:10.3390/molecules25184263, Impact factor: 3.267.
- L20.** L. Massimi, M. Ristorini, G. Simonetti, M.A. Frezzini, **M.L. Astolfi**, S. Canepari. Spatial mapping and dimensional distribution of oxidative potential of particulate matter released by spatially disaggregated sources. *Environmental Pollution* 266 (2020) 115271. DOI: 10.1016/j.envpol.2020.115271. Impact factor: 6.792.
- L21.** L. Capobianco, F. Di Caprio, P. Altimari, **M.L. Astolfi**, F. Pagnanelli, 2020. Production of an iron-coated adsorbent for arsenic removal by hydrothermal carbonization of olive pomace: Effect of the feedwater pH. *Journal of Environmental Management* 273 (2020) 111164, Impact factor: 5.647. DOI: 10.1016/j.jenvman.2020.111164.
- L22.** **M.L. Astolfi***, E. Marconi, L. Lorini, F. Valentino, F. Silva, B. Sommer Ferreira, S. Canepari, M. Majone. Elemental concentration and migratability in bioplastics derived from organic waste. *Chemosphere* 259 (2020) 127472. DOI: 10.1016/j.chemosphere.2020.127472. Impact Factor: 5.778.
- L23.** L. Massimi, M. Ristorini, **M.L. Astolfi**, C. Perrino, S. Canepari. High resolution spatial mapping of element concentrations in PM10: A powerful tool for localization of emission sources. *Atmospheric Research* 244 (2020) 105060. DOI: 10.1016/j.atmosres.2020.105060. Impact factor: 4.676.

- L24.** **M.L. Astolfi***, E. Marconi, C. Protano, S. Canepari. Comparative elemental analysis of dairy milk and plant-based milk alternatives. *Food Control* 116 (2020) 107327. DOI: 10.1016/j.foodcont.2020.107327. Impact Factor: 4.258.
- L25.** **M.L. Astolfi***, C. Protano, E. Marconi, L. Massimi, M. Brunori, D. Piamonti, G. Migliara, M. Vitali, S. Canepari. A new treatment of human hair for elemental determination by inductively coupled mass spectrometry, *Analytical Methods* 12 (2020) 1906–1918. DOI: 10.1039/C9AY01871A. Impact Factor: 2.596.
- L26.** **M.L. Astolfi***, C. Protano, E. Marconi, L. Massimi, D. Piamonti, M. Brunori, M. Vitali, S. Canepari. Biomonitoring of mercury in hair among a group of Eritreans (Africa). *International Journal of Environmental Research and Public Health* 17 (2020) 1911. DOI: 10.3390/ijerph17061911. Impact Factor: 2.849.
- L27.** M. Ristorini, **M.L. Astolfi**, M.A. Frezzini, S. Canepari, L. Massimi. Evaluation of the efficiency of *Arundo donax* L. leaves as biomonitors for atmospheric element concentrations in an urban and industrial area of Central Italy. *Atmosphere* 11 (2020) 226. DOI: 10.3390/atmos11030226. Impact factor: 2.397.
- L28.** M.A. Frezzini, L. Massimi, **M.L. Astolfi**, S. Canepari, A. Giuliano. Food waste materials as low-cost adsorbents for the removal of volatile organic compounds from wastewater. *Materials* 12 (2019) 4242. DOI:10.3390/ma12244242. Impact Factor: 3.057.
- L29.** L. Massimi, S. Canepari, M. Ristorini, F. Buiarelli, **M.L. Astolfi**, G. Simonetti, D. Pomata, P. Di Filippo, C. Riccardi. spatial distribution of levoglucosan and alternative biomass burning tracers in atmospheric aerosols, in an urban and industrial hot-spot of central Italy. *Atmospheric Research* 239 (2020) 104904. DOI: 10.1016/j.atmosres.2020.104904. Impact Factor: 4.676
- L30.** M. Manigrasso, G. Simonetti, **M.L. Astolfi**, C. Perrino, S. Canepari, C. Protano, A. Antonucci, P. Avino, M. Vitali. Oxidative potential associated to urban aerosol deposited into the respiratory system and relevant elemental and ionic fraction contributions. *Atmosphere* 11 (2020) 6. DOI:10.3390/atmos11010006. Impact Factor: 2.397.
- L31.** A.M. Girelli, **M.L. Astolfi**, F.R. Scuto. Agro-industrial wastes as potential carriers for enzyme immobilization: a review. *Chemosphere* 244 (2020) 125368. DOI: 10.1016/j.chemosphere.2019.125368. Impact Factor: 5.778.
- L32.** C. Protano, **M.L. Astolfi**, E. Marconi, A. Antonucci, S. Canepari; D. Piamonti, M. Brunori, M. Vitali. Exposure assessment via inductively coupled plasma mass spectrometry analysis of major and trace elements in human scalp hair among a group of Eritrean adults. *Biological Trace Element Research* 197(1) (2020) 89-100. DOI: 10.1007/s12011-019-01988-w. Impact factor: 2.639.
- L33.** **M.L. Astolfi***, C. Protano, E. Marconi, D. Piamonti, L. Massimi, M. Brunori, M. Vitali, S. Canepari. Simple and rapid method for the determination of mercury in human hair by cold vapour generation atomic fluorescence spectrometry. *Microchemical Journal* 150 (2019) 104186. DOI: 10.1016/j.microc.2019.104186. Impact Factor: 3.594.
- L34.** S. Canepari, **M.L. Astolfi**, M. Catrambone, D. Frasca, M. Marcoccia, F. Marcovecchio, L. Massimi, E. Rantica, C. Perrino. A combined chemical/size fractionation approach to study winter/summer variations, ageing and source strength of atmospheric particles. *Environmental Pollution* 253 (2019) 19–28. DOI: 10.1016/j.envpol.2019.06.116. Impact factor: 6.792.
- L35.** M. Vitali, A. Antonucci, M. Owczarek, M. Guidotti, **M.L. Astolfi**, M. Manigrasso, P. Avino, B. Bhattacharya, C. Protano. Air quality assessment in different environmental scenarios by the determination of heavy metals, PAHs, PCDDs, PCDFs, PCBs and PBDEs in native lichen *Xanthoria*

Parietina. *Environmental Pollution* 254 (2019) 113013. DOI: [10.1016/j.envpol.2019.113013](https://doi.org/10.1016/j.envpol.2019.113013). Impact factor: 6.792.

- L36.** **M.L. Astolfi***, C. Protano, E. Schiavi, E. Marconi, D. Capobianco, L. Massimi, M. Ristorini, M.E. Baldassarre, N. Laforgia, M. Vitali, S. Canepari, P. Mastromarino. A prophylactic multi-strain probiotic treatment to reduce the absorption of toxic elements: in-vitro study and biomonitoring of breast milk and infant stools. *Environment International* 130 (2019) 104818. DOI: [10.1016/j.envint.2019.05.012](https://doi.org/10.1016/j.envint.2019.05.012). Impact factor: 7.577.
- L37.** L. Massimi, M.E. Conti, G. Mele, M. Ristorini, **M.L. Astolfi**, S. Canepari. Lichen transplants as indicators of atmospheric element concentrations: a high spatial resolution comparison with PM10 samples in a polluted area (Central Italy). *Ecological Indicators* 101 (2019) 759–769. DOI: [10.1016/j.ecolind.2018.12.051](https://doi.org/10.1016/j.ecolind.2018.12.051). Impact factor: 4.229.
- L38.** M. Manigrasso, C. Protano, **M.L. Astolfi**, L. Massimi, P. Avino, M. Vitali, S. Canepari. Evidences of copper nanoparticle exposure in indoor environments: long-term assessment, high-resolution field emission scanning electron microscopy evaluation, in silico respiratory dosimetry study and possible health implications. *Science of the Total Environment* 653 (2019) 1192–1203. DOI: [10.1016/j.scitotenv.2018.11.044](https://doi.org/10.1016/j.scitotenv.2018.11.044). Impact factor: 6.551.
- L39.** E. Viola, M.P. Donzello, S. Testani, G. Luccisano, **M.L. Astolfi**, C. Rizzoli, L. Cong, L. Mannina, C. Ercolani, K.M. Kadish. Tetra-2,3-pyrazinoporphyrazines with Externally Appended Pyridine Rings. 19. Pentanuclear Octa(2-pyridyl)tetrapyrazinoporphyrazines with Externally Pending Carboranthiolate Groups. Physicochemical Properties and Potentialities as Anticancer Drugs. *Inorganic Chemistry* 58 (2) (2019) 1120–1133. DOI: [10.1021/acs.inorgchem.8b02269](https://doi.org/10.1021/acs.inorgchem.8b02269). Impact factor: 4.825.
- L40.** A. Apriceno, **M.L. Astolfi**, A.M. Girelli, F.R. Scuto. A new Laccase-Mediator System facing the biodegradation 1 challenge: insight into the NSAIDs removal. *Chemosphere* 215 (2019) 535–542. DOI: [10.1016/j.chemosphere.2018.10.086](https://doi.org/10.1016/j.chemosphere.2018.10.086). Impact factor: 5.778.
- L41.** M.E. Conti, S. Canepari, M.G. Finoia, G. Mele, **M.L. Astolfi**. Characterization of Italian multifloral honeys on the basis of their mineral content and some typical quality parameters. *Journal of Food Composition and Analysis* 74 (2018) 102–113. DOI: [10.1016/j.jfca.2018.09.002](https://doi.org/10.1016/j.jfca.2018.09.002). Impact Factor: 3.721.
- L42.** **M.L. Astolfi***, E. Marconi, C. Protano, M. Vitali, E. Schiavi, P. Mastromarino, S. Canepari. Optimization and validation of a fast digestion method for the determination of major and trace elements in breast milk by ICP-MS. *Analytica Chimica Acta* 1040 (2018) 49–62. DOI: [10.1016/j.aca.2018.07.037](https://doi.org/10.1016/j.aca.2018.07.037). Impact factor: 5.977.