

CURRICULUM VITAE

Maria Luisa Astolfi

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CURRENT POSITION

1 October 2020 to present: Researcher in "Analytical Chemistry" at the Department of Chemistry, Sapienza University of Rome, Italy.

EDUCATION AND TRAINING

- July 2019-September 2020: Assistant Professor of Analytical Chemistry, Department of Chemistry, Sapienza University of Rome, Italy.
- January 2010-April 2019: Postdoctoral Fellow, Department of Chemistry, Sapienza University of Rome, Italy.
- July 2009: PhD in Analytical Chemistry, Department of Chemistry, Sapienza University of Rome, Italy.
- November 2008-December 2009: Fellow, Department of Chemistry, Sapienza University of Rome, Italy.
- April 2007-October 2007: Scientific training internship, Department of Chemistry, Sapienza University of Rome, Italy.
- May 2005-October 2005: Assistant Professor, Department of Chemistry, Sapienza University of Rome, Italy.
- April 2005: Bachelor of Science in Chemistry, Department of Chemistry, Sapienza University of Rome, Italy.

EDITORIAL BOARD MEMBER

- Plose One – eISSN 1932-6203 an Open Access Journal; indexed within Scopus, and many other databases. Impact Factor 3.240 (2020).
- Open Chemistry – ISSN: 2391-5420– Publisher: De Gruyter Open Access Journal; indexed within Scopus, and many other databases. Impact factor: 1.554.
- Analytica - ISSN 2673-4532 an Open Access Journal by MDPI.
- Methods and Protocols - ISSN 2409-9279 an Open Access Journal by MDPI; indexed within Scopus, and many other databases.
- Frontiers in Analytical Science - ISSN 2673-9283, Environmental analysis; indexed in: Google Scholar, CrossRef, CLOCKSS, OpenAIRE.

GUEST EDITOR ACTIVITY

- Guest Editor, Special Issue on "*Advances in Green Analytical Methods*", Analytica, MDPI (11/2021 – 11/2022).
- Guest Editor, Special Issue on "*Advances in Analytical Strategies to Study Biological and Environmental Samples*", Methods and Protocols, MDPI (07/2021 – 10/2022).
- Guest Editor - Special Issue "*Advances in Analytical Strategies to Study Cultural Heritage Samples*", Molecules, MDPI (07/2021 – 11/2022).
- Guest Editor, Special Issue on "*Exposure assessment to environmental contaminants in children*", International Journal of Environmental Research and Public Health, MDPI (05/2020 – 01/2021).
- Guest Editor, Special Issue on "*Recent Advances in Assessing Environmental and Occupational Exposure to Toxic Elements*", International Journal of Environmental Research and Public Health, MDPI (11/2019 – 04/2021).
- Guest Editor, Topic Research on "*Progress in Analytical Methods and Optimized Approaches for Elemental Analysis in Environmental and Biological Monitoring*", Frontiers in Environmental Science (09/2020 – 07/2021).

MEMBERSHIPS

- Individual member of the Italian Chemical Society (SCI), division of Analytical Chemistry and Chemistry of the Environment and Cultural Heritage.
- Italian Aerosol Society (IAS)

REVIEWED MANUSCRIPTS FOR JOURNALS

- Analytica, MDPI
- Analytical Science Advances, Wiley-VCH

- Biological Trace Element Research, Springer Science+Business Media
- Environmental Research, Elsevier
- Environmental Science and Pollution Research, Springer
- Environments, MDPI
- Environmental Pollution, Elsevier
- Food Chemistry, Elsevier
- Foods, MDPI
- International Archives of Occupational and Environmental Health, Springer
- International Journal of Molecular Sciences, MDPI
- International Journal of Environmental and Public Health, MDPI
- Journal of the Brazilian Chemical Society, Brazilian Society of Chemistry
- Plose One
- Probiotics and Antimicrobial Proteins (PAAP), Springer
- Royal Society Open Science, Royal Society
- Science of the Total Environment, Elsevier
- Talanta, Elsevier
- Toxics, MDPI

SCIENTIFIC RECORD

H-index: **24**

Total number of works: **80**

Total citation number: **1422**

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SCIENTIFIC WORKS

1 BOOK CHAPTERS

A. Rubino; J. Almeida; C. Magro; P.G. Schiavi¹; P. Guedes; N. Couto; E. P. Mateus; P. Altimari; **M.L. Astolfi**; R. Zandoni; A. B. Ribeiro; F. Pagnanelli. Nanostructured TiO₂-Based Hydrogen Evolution Reaction (HER) Electrocatalysts: A Preliminary Feasibility Study In Electrolytic Remediation With Hydrogen Recovery. Book: Ribeiro A.B., Prasad, M.N.V. (Eds) Electrokinetic Remediation for Environmental Security and Sustainability. John Wiley & Sons, Ltd. DOI: 10.1002/9781119670186.ch10.

80 PEER-REVIEWED PUBLICATIONS

1. **M.L. Astolfi**. Editorial: Advances in Analytical Strategies to Study Cultural Heritage Samples. *Molecules*, 2023, 28, 6423. <https://doi.org/10.3390/molecules28176423>.
2. P. Altimari, F. Di Caprio, I. Falcone, J. Coletta, E. Moscardini, **M.L. Astolfi**, A. Brasiello, F. Pagnanelli. Valorisation of olive pomace for the production of bio-

- composite adsorbents applied in as removal from drinking waters, *Chemical Engineering Transactions*, 2023, 100, 457-462. <https://doi.org/10.3303/CET23100077>.
3. M.P. Sammartino, A. Grendene, **M.L. Astolfi***, S. Marcheggiani, C. Puccinelli, M. Vitali, A. Antonucci, G. Visco. Ancient spring waters still emerging and accessible in the Roman Forum area: chemical-physical and microbiological characterization. *Open Chemistry* (2023). <https://doi.org/10.1515/chem-2023-1010366>.
 4. A. Marchetti, G. Salvatori, **M.L. Astolfi**, J. Fradinho, M.A.M. Reis, D. Bolzonella, M. Villano. Evaluation of the acidogenic fermentation potential of food industry by-products. *Biochemical Engineering Journal*, 2023, 109029. <https://doi.org/10.1016/j.bej.2023.109029>.
 5. F. Pietrini, L. Passatore, S. Carloni, L. Massimi, **M.L. Astolfi**, C. Giusto, M. Zacchini. Bismuth exposure affects morpho-physiological performances and the ionic profile in garden cress (*Lepidium sativum* L.) plants. *Frontiers in Environmental Science* 11 (2023) 1221573. <https://doi.org/10.3389/fenvs.2023.1221573>.
 6. **M.L. Astolfi***, L. Massimi, M. Rapa, R.R. Plà, R.C. Jasan, M.B. Tudino, S. Canepari, M.E. Conti. A multi-analytical approach to studying the chemical composition of typical carbon sink samples. *Scientific Reports* 17 (2023) 7971. doi: 10.1038/s41598-023-35180-x.
 7. M.E. Conti, M. Rapa, R. Pla, R. Jasan, M.B. Tudino, S. Canepari, L. Massimi, **M.L. Astolfi**. Elemental and chemometric analysis of baseline gradient contamination in *Usnea barbata* lichens from Tierra del Fuego (South Patagonia). *Microchemical Journal* 185 (2023) 108283. <https://doi.org/10.1016/j.microc.2022.108283>
 8. C. Colantonio, P. Baldassarri, P. Avino, **M.L. Astolfi**, G. Visco. Visual and Physical Degradation of the Black and White Mosaic of a Roman Domus under Palazzo Valentini in Rome: A Preliminary Study. *Molecules* 27 (2022) 7765. <https://doi.org/10.3390/molecules27227765>.
 9. S. Canepari, **M.L. Astolfi**, G. Drago, S. Ruggieri, E.E. Taormina, F. Cibella, C. Perrino. PM_{2.5} elemental composition in indoor residential environments and co-exposure effects on respiratory health in an industrial area. *Environmental Research* 216 (2022) 114630. <https://doi.org/10.1016/j.envres.2022.114630>.
 10. M. Gaeta, L. Aldega, **M.L. Astolfi**, P. Pacheco, C. Perinelli. Base cations mobility in vineyard soils of the Colli Albani volcanic district (Central Italy). *Journal of Soil Sciences and Plant Nutrition* (2022). <https://doi.org/10.1007/s42729-022-01039-9>.
 11. **M.L. Astolfi***, M.E. Conti, M. Messi, E. Marconi. Probiotics as a promising prophylactic tool to reduce levels of toxic or potentially toxic elements in bees. *Chemosphere* (2022) 136261. <https://doi.org/10.1016/j.chemosphere.2022.136261>.
 12. M. Gaeta, L. Aldega, **M.L. Astolfi**, B. Bonechi, P. Pacheco, F. Tiberi. Soils developed on the Si-poor, alkali-rich pyroclastic rocks of the Colli Albani volcanic district (Central Italy): the effect of leucite, clinopyroxene and phlogopite on the base cations mobility. *Applied Geochemistry* 145 (2022) 105430. <https://doi.org/10.1016/j.apgeochem.2022.105430>.
 13. S. Visconti, **M.L. Astolfi**, A. Battistoni, S. Ammendola. Impairment of the Zn/Cd detoxification systems affects the ability of *Salmonella* to colonize *Arabidopsis*

thaliana. *Frontiers in Microbiology* 13 (2022) 975725. <https://doi.org/10.3389/fmicb.2022.975725>.

14. P.A.M. Mourão, F. Di Caprio, I.P.P. Cansado, J.E. Castanheiro, I. Falcone, **M.L. Astolfi**, P. Altimari, F. Pagnanelli. Granulation and activation of an arsenic adsorbent made of iron oxide doped hydrochar. *Chemical Engineering Transactions* 93 (2022) 91-96. <https://doi.org/10.3303/CET2293016>.
15. L. Massimi, E. Pietrantonio, **M.L. Astolfi**, S. Canepari. Innovative experimental approach for spatial mapping of source-specific risk contributions of potentially toxic trace elements in PM10. *Chemosphere* 307 (2022) 135871. <https://doi.org/10.1016/j.chemosphere.2022.135871>
16. M.E. Conti, **M.L. Astolfi**, G. Mele, M. Ristorini, G. Vitiello, L. Massimi, S. Canepari, M.G. Finoia. Performance of bees and beehive products as biomonitors of elemental tracers of atmospheric pollution by applying the overlap bioaccumulation index in sites of the Rome province (Italy). *Ecological Indicators* 140 (2022) 109061. <https://doi.org/10.1016/j.ecolind.2022.109061>.
17. F. Buonauro, F. Borra, D. Pigini, E. Paci, M. Spagnoli, **M. L. Astolfi**, O. Giampaoli, F. Sciubba, A. Miccheli, S. Canepari, C. Ancona, G. Tranfo. Biomonitoring of exposure to urban pollutants and oxidative stress during the COVID-19 lockdown in Rome residents. *Toxics* 2022, 10, 267. <https://doi.org/10.3390/toxics10050267>.
18. L. Massimi, **M.L. Astolfi**, S. Canepari. Simple and efficient method to detach intact pm10 from field filters: elements recovery assessment. *Atmospheric Pollution Research* 13 (2022) 101417. <https://doi.org/10.1016/j.apr.2022.101417>.
19. 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*, 29 (2022) 36057–36074. doi: 10.1007/s11356-021-18072-3.
20. **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.
21. 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.
22. 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.
23. **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.
24. **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.
25. 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.
 26. L. Massimi, S. van Ratingen, J. Wesseling, I. Javed, M.A. Frezzini, **M.L. Astolfi**, R. Vermeulen, S. Canepari. Individuation and Spatial Mapping of Tracers of PM10 Emission Sources in Amersfoort (Netherlands). *Atmospheric Research* 262 (2021) 105771. DOI: 10.1016/j.atmosres.2021.105771.
 27. **M.L. Astolfi**, D. Marotta, V. Cammalleri, E. Marconi, A. Antonucci, P. Avino, S. Canepari, M. Vitali, C. Protano. Determination of 40 elements in powered infant formulas and related risk assessment. *International Journal of Environmental Research and Public* 18 (2021) 5073. DOI: 10.3390/ijerph18105073.
 28. **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.
 29. 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* (2021). DOI: 10.4315/JFP-21-126.
 30. **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.
 31. 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.
 32. **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.
 33. F. Buonauro, **M.L. Astolfi**, S. Canepari, M. Di Basilio, R. Gibilras, M. Mecchia, M. Papacchini, E. Paci, D. Pignini, 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.
 34. **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.

35. **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.
36. 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.
37. 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.
38. 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.
39. **M.L. Astolfi***, E. Marconi, L. Lorini, F. Valentino, F. Silva, B. Sommer Ferreira, S. Canepari, M. Majone, 2020. Elemental concentration and migratability in bioplastics derived from organic waste. *Chemosphere* 259 (2020) 127472. DOI: 10.1016/j.chemosphere.2020.127472.
40. 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.
41. **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.
42. **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.
43. **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.
44. 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.
45. 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.

46. 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: [org/10.1016/j.atmosres.2020.104904](https://doi.org/10.1016/j.atmosres.2020.104904).
47. 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.
48. 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](https://doi.org/10.1016/j.chemosphere.2019.125368).
49. 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](https://doi.org/10.1007/s12011-019-01988-w).
50. **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](https://doi.org/10.1016/j.microc.2019.104186).
51. S. Canepari, **M.L. Astolfi**, M. Catrambone, D. Frasca, M. Marcocchia, 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](https://doi.org/10.1016/j.envpol.2019.06.116).
52. 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).
53. **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).
54. 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).
55. 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.
56. 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.
 57. 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.
 58. 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.
 59. **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.
 60. L. Massimi, A. Giuliano, **M.L. Astolfi**, R. Congedo, A. Masotti, S. Canepari. Efficiency evaluation of food waste materials for the removal of metals and metalloids from complex multi-element solutions, *Materials*, 11(3) (2018) 334. DOI: 10.3390/ma11030334.
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