

Maria Concetta Bruzzoniti, Department of Chemistry, University of Torino, Italy

Published articles:

L. Ciofi, C. Ancillotti, U. Chiuminatto, U.b, D. Fibbi, B. Pasquini, M.C. Bruzzoniti, L. Rivoira, M. Del Bubba

Fully automated on-line solid phase extraction coupled to liquid chromatography–tandem mass spectrometry for the simultaneous analysis of alkylphenol polyethoxylates and their carboxylic and phenolic metabolites in wastewater samples

(2016) *Anal. Bioanal. Chem.* in press.

M.C. Bruzzoniti, R.M. De Carlo, L. Rivoira, M. Del Bubba, M. Pavani, M. Riatti, B. Onida

Adsorption of bentazone herbicide onto mesoporous silica: application to environmental water purification

(2016) *Environ. Sci. Pollut. Res.* 23(6), pp. 5399-409.

R.M. De Carlo, L. Rivoira, L. Ciofi, C. Ancillotti, L. Checchini, M. Del Bubba, M.C. Bruzzoniti

Evaluation of different QuEChERS procedures for the recovery of selected drugs and herbicides from soil using LC coupled with UV and pulsed amperometry for their detection

(2015) *Anal. Bioanal. Chem.*, 407 (4), pp. 1217-1229

M.C. Bruzzoniti, R. Maina, V. Tumiatti, C. Sarzanini, R.M. De Carlo

Simultaneous determination of passivator and antioxidants additives in insulating mineral oils by high performance liquid chromatography analysis

(2015) *J. Liq. Chromatogr. R. T.*, 38, pp. 15-19.

L. Rivoira, R.M. De Carlo, S. Cavalli, M.C. Bruzzoniti

Simple SPE-HPLC determination of some common drugs and herbicides of environmental concern by pulsed amperometry

(2015) *Talanta*, 131, pp. 205-212.

M.C. Bruzzoniti, S. Fiore

Removal of inorganic contaminants from aqueous solutions: evaluation of the remediation efficiency and of the environmental impact of a Zero-valent iron substrate

(2014) *Water, Air, & Soil Pollution*, 225, pp. 2098-2107.

M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini, R. Maina, V. Tumiatti

Stability and Reactivity of Sulfur Compounds against Copper in Insulating Mineral Oil: Definition of a Corrosiveness Ranking

(2014) *Ind. Eng. Chem. Res.*, 53 (21), pp. 8675-8684.

M.C. Bruzzoniti, L. Checchini, R.M. De Carlo, S. Orlandini, L. Rivoira, M. Del Bubba

QuEChERS sample preparation for determination of pesticides and other organic residues in environmental matrices: a critical review

(2014) *Anal. Bioanal. Chem.*, 406, pp. 4089–4116.

M.C. Bruzzoniti, R. Maina, R.M. De Carlo, C. Sarzanini, V. Tumiatti

GC Methods for the Determination of Methanol and Ethanol in Insulating Mineral Oils as Markers of Cellulose Degradation in Power Transformers
(2014) *Chromatographia*, 77 (15), pp 1081-1089

R.M. De Carlo, C. Sarzanini, M.C. Bruzzoniti R. Maina, V. Tumiatti
Copper in oil Dissolution and Copper-on-paper Deposition Behavior of Mineral Insulating Oils
(2014) *IEEE Transaction on Dielectrics and Electrical Insulation*, 21(2), pp. 666-673.

P. Nesterenko, D. Caldarola, L. Marlin, E.P. Nesterenko, D.P. Mitev, B. Paull, B. Onida, M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini
Functionalisation of mesoporous silica gel with 2-[(phosphonomethyl)amino]acetic acid functional groups. Characterisation and application
(2014) *Applied Surface Science*, 288, pp. 373-380.

R.M. De Carlo, R. Maina, V. Tumiatti, C. Sarzanini, M.C. Bruzzoniti
Copper contaminated insulating mineral oils- Testing and investigations
(2013) *IEEE Transaction on Dielectrics and Electrical Insulation*, 20, pp. 557-563.

M.C. Bruzzoniti, R. Maina, V. Tumiatti, C. Sarzanini, L. Rivoira, R.M. De Carlo
Fast low-pressure microwave assisted extraction and gas chromatographic determination of polychlorinated biphenyls in soil samples
(2012) *J. Chromatogr. A*, 1265, pp. 31-38.

M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini, D. Caldarola, B. Onida
Novel insights in Al-MCM-41 precursor as adsorbent for regulated haloacetic acids and nitrate from water
(2012) *Environm. Sci. Poll. Res.*, 19, pp. 4176-4183.

M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini, R. Maina, V. Tumiatti
Determination of copper in liquid and solid insulation for large electrical equipment by ICP-OES. Application to copper contamination assessment in power transformer
(2012) *Talanta*, 99, pp. 703-711

D. Korte Kobylinska, M.C. Bruzzoniti, C. Sarzanini and M. Franko
Influence of foreign ions on determination of ionic Ag in water by formation of nanoparticles in a FIA-TLS system
(2011) *Analytical Letters*, 44, pp. 2901-2910.

R. Maina, V. Tumiatti, M.C. Bruzzoniti, R.M. De Carlo, J. Lukic, D. Naumović-Vuković
Copper Dissolution and Deposition Tendency of Insulating Mineral Oils Related to Dielectric Properties of Liquid and Solid Insulation
(2011) 17th IEEE International Conference on Dielectric Liquids, 26 -30 June 2011, Trondheim, Norway. CD-ROM. ISBN:978-82-594-3525-5, ISSN: 2153-3725. DOI: [10.1109/ICDL.2011.6015423](https://doi.org/10.1109/ICDL.2011.6015423).

M.C. Bruzzoniti, R.M. De Carlo and C. Sarzanini
The challenging role of chromatography in environmental problems
(2011) *Chromatographia*, 73 (SUPPL. 1), pp. S15-S28.

M.C. Bruzzoniti, C. Sarzanini, A.M. Torchia, M. Teodoro, F. Testa, A. Virga and B. Onida
MCM41 functionalized with ethylenediaminetriacetic acid for ion-exchange chromatography
(2011) *J. Mater. Chem.*, 21, pp. 369-376.

D. Korte Kobylinska, M.C. Bruzzoniti, C. Sarzanini and M. Franko
Thermal lens spectrometric determination of colloidal and ionic silver in water
(2011) *International Journal of Thermophysics*, 32 (4), pp. 818-827.

M. C. Bruzzoniti, C. Sarzanini
By-products of drinking water disinfection: trends and challenges in their monitoring
(2011) in book "Water Disinfection", Editor K.M. Buchanan, Nova Science Publisher Inc., ISBN: 978-1-61122-021-6, pp. 1-43

Articles in Preparation/Submitted:

S. Karef, A. Kettab, D. Loudyi, M.C. Bruzzoniti, M. Del Bubba, N. Boujelben, L. Mandi
Pollution parameters and performance indicators for wastewater treatment plant of Medea
(Algeria)
Submitted to *Desalination and Water Treatment* (2016)

Rossini, D., Ciofi, L., Ancillotti, C., Checchini, L., Bruzzoniti, M.C., Rivoira, L., Fibbi, D., Orlandini, S.,
Del Bubba, M.
Innovative combination of QuEChERS extraction with on-line solid phase extract purification and
pre-concentration, followed by liquid chromatography-tandem mass spectrometry for the
determination of nonsteroidal anti-inflammatory drugs and their metabolites in sewage sludge
Submitted to *Analytica Chimica Acta* (2016)

Bruzzoniti M.C., Sarzanini C., Rivoira L., Tumiatti V., Maina R.
Simultaneous determination of five common additives in insulating mineral oils by HPLC ultraviolet-
coulometric detection
Submitted to *Journal of Separation Science* (2016)

Rivoira L, Appendini M., Fiorilli S., Onida B., Del Bubba M., Bruzzoniti M.C.
Optimized functionalized iron oxide/SBA-15 composite for the removal of glyphosate herbicide from
wastewater" has been received by *Environmental Science and Pollution Research* (2016)

Participation to Congresses:

Tunisian Days on The Water Sources Alternatives (TUWSA'15), Mahdia, Tunisia 19-21 December
2015 : S. Karef, A. Kettab, M. Nakib, M.C. Bruzzoniti, M. Del Bubba, N. Boujelben, L. Mandi "Pollution
parameters and performance indicators of the WWTP of Medea (Algeria)" pp. 128-129.

Tunisian Days on The Water Sources Alternatives (TUWSA'15), Mahdia, Tunisia 19-21 December
2015 : A. Kettab, S. Karef, M.C. Bruzzoniti, M. Nakib, N. Boujelben, L. Mandi, M. Del Bubba
"Evaluation of the fertiliser inputs of sludge and treated water of the city of Medea (Algeria)" pp.
40-41

16th European Meeting on Environmental Chemistry (EMEC16), Torino 30 November-3 December 2015: C. Di Felice, M.C. Bruzzoniti, L. Rivoira, D. Fabbri, L. Ferroni, L. Nobili, R. Pastorino, I. Vassura "Metal adsorption on biochar: study of pH influence", p. 155, P-SOIL-8. ISBN: 978-88-941168-0-9, Eds.: Maria Concetta Bruzzoniti, D. Vione.

16th European Meeting on Environmental Chemistry (EMEC16), Torino 30 November-3 December 2015 : L. Ciofi, D. Rossini, M.C. Bruzzoniti, M. Del Bubba "QuEChERS extraction followed by on-line clean-up and tandem mass spectrometric determination of selected drugs in wastewater and sewage sludge", p.9, AN-1. ISBN: 978-88-941168-0-9, Ed.: Maria Concetta Bruzzoniti, D. Vione.

XXV Congresso della Divisione di Chimica Analitica della Società Chimica Italiana (National Congress of Analytical Chemistry of the Italian Chemical Society) , Trieste, 13 – 17 September 2015 : M. Del Bubba, D. Rossini, L. Ciofi, M.C. Bruzzoniti "Investigating the feasibility of coupling QuEChERS extraction, on-line clean-up and LC-MS/MS analysis of emergent micropollutants in sludges" p. 238 ISBN: 978-88-907670-2-9, Editor Antonella Rossi.

XXV Congresso della Divisione di Chimica Analitica della Società Chimica Italiana (National Congress of Analytical Chemistry of the Italian Chemical Society) , Trieste, 13 – 17 September 2015 R.M. De Carlo, M.C. Bruzzoniti, L. Rivoira, C. Sarzanini, S. Kapila, V. Tumiatti, R. Maina "Direct injection-HPLC analysis for the determination of furanic compounds in oil as markers of solid insulation degradation in power transformers" , p. 244 ISBN: 978-88-907670-2-9, Editor Antonella Rossi.

21th International Symposium on Separation Sciences, ISSS 2015, Ljubljana, Slovenia, June 30 - July 3, 2015 : C. Ancillotti, L. Ciofi, D. Pucci, U. Chiuminatto, E. Giordani, M.C. Bruzzoniti, M. Del Bubba "HPLC-MS/MS characterization of polyphenolic components of berries of different species of Vaccinium genus, p. 58, ISBN: 978-961-6104-28-3.

21th International Symposium on Separation Sciences, ISSS 2015, Ljubljana, Slovenia, June 30 - July 3, 2015 : M.C. Bruzzoniti, R.M. De Carlo, F. Zuppardo, L. Rivoira, C. Sarzanini, S. Kapila, V. Tumiatti, R. Maina "Determination of 2-FAL and related compounds in insulating mineral oils by direct injection high performance liquid chromatography", p. 128, ISBN: 978-961-6104-28-3.

XV Congresso Nazionale di Chimica dell'Ambiente e dei Beni Culturali, Società Chimica Italiana (National Congress of Environmental Chemistry and Cultural Heritage), Bergamo, 14-18 June 2015 : L. Rivoira, G. Calì, S. Fiorilli, B. Onida, M.C. Bruzzoniti, "Rimozione del glifosato da matrici acquose mediante materiali mesoporosi funzionalizzati contenenti magnetite", ISBN: 9788886206956. pag. 141-142.

4th Scientific Conference Monitoring and Analysis of Water: Chromatographic methods for determination of ionic compounds, University of Nicolaus Copernicus, 15-17 March 2015, Torun (Poland) : M.C. Bruzzoniti, M. Del Bubba, S. Cavalli, L.Rivoira, R.M. De Carlo "Simple HPLC determination of some common drugs and herbicides of environmental concern by pulsed amperometry: an integrated approach for their determination in water and soil samples" pag. W6.

Incontri di Scienza delle Separazioni (Separation Science Meetings), Società Chimica Italiana. Stato dell'arte e innovazioni delle tecniche separative in campo agroalimentare, biomedico e ambientale, 12 December 2014, CNR, Roma (Italy) : L. Ciofi, C. Ancillotti, L. Marzullo, M.C. Bruzzoniti, B. Pasquini,

S. Furlanetto, E. Coppini, D. Fibbi, M. Del Bubba "Estrazione in fase solida in linea (on-line SPE) accoppiata a determinazione LC-MS/MS di alchilfenoli polietossilati e dei loro metaboliti carbossilici e fenolici in acque di scarico", p. 8, ISBN: 978-88-86208-99-4.

Incontri di Scienza delle Separazioni (Separation Science Meetings), Società Chimica Italiana. Stato dell'arte e innovazioni delle tecniche separative in campo agroalimentare, biomedico e ambientale, 12 December 2014, CNR, Roma (Italy) : L. Rivoira, R.M. De Carlo, M. Riatti, M. Pavani, B. Onida, M.C. Bruzzoniti "Valutazione delle proprietà adsorbenti di diversi materiali per la rimozione dell'erbicida bentazone dalle acque", p. 24, ISBN: 978-88-86208-99-4.

20th International Symposium on Separation Sciences, ISSS 2014, August 30 - September 2, 2014, Prague, Czech Republic: R.M. De Carlo, L. Rivoira, M. Riatti, M. Pavani, B. Onida B., M.C. Bruzzoniti "Adsorption of common herbicide bentazone from water onto MCM-41", p. 111, ISBN: 978-80-7395-777-3.

20th International Symposium on Separation Sciences, ISSS 2014, August 30 - September 2, 2014, Prague, Czech Republic: M.C. Bruzzoniti, M. Franz, R.M. De Carlo, L. Rivoira, C. Sarzanini, S. Kapila, V. Tumiatti, R. Maina "Analysis of additives in insulating mineral oils: optimization of extraction, separation and detection techniques", p. 126, ISBN: 978-80-7395-777-3.

XXV Congresso Nazionale della Società Chimica Italiana (National Conference of the Italian Chemical Society) - SCI 2014, 7-12 September 2014 Rende (CS), Italy : L. Rivoira, R.M. De Carlo, C. Ancillotti, L.Ciofi, M. Del Bubba, M.C. Bruzzoniti "Determination of pharmaceutical and herbicide compounds in soil samples using the QuEChERS methodology".

XXV Congresso Nazionale della Società Chimica Italiana (National Conference of the Italian Chemical Society) - SCI 2014, 7-12 September 2014 Rende (CS), Italy : R.M. De Carlo, C. Sarzanini, M.C. Bruzzoniti "Study for the speciation and rapid measurement of copper content in contaminated insulating oils".

NIS Colloquium, 9 May 2014 Turin (Italy) : M.C. Bruzzoniti, R.M. De Carlo, L. Rivoira, C. Sarzanini, S. Fiorilli, B. Onida "Functionalized silicas for analytical and environmental applications".

Incontri di Scienza delle Separazioni (Separation Science Meetings) Società Chimica Italiana, 28-29 November 2013 Messina (Italy) : L. Rivoira, R.M. De Carlo, S. Cavalli, C. Sarzanini, M.C. Bruzzoniti, "Chromatographic separation with amperometric detection for the determination of environmental pollutants".

XXIV Congresso della Divisione di Chimica Analitica della Società Chimica Italiana Italiana (National Congress of Analytical Chemistry of the Italian Chemical Society), 15-19 September 2013, Sestri Levante (GE) : R.M. De Carlo, M.C. Bruzzoniti, C. Sarzanini, R. Maina, V. Tumiatti, "Gas chromatographic approaches for the determination of new markers of cellulose degradation in insulating mineral oils of power transformers", p. 56, ISBN: 9788890767012.

19th International Symposium on Separation Sciences, NEW ACHIEVEMENT IN CHROMATOGRAPHY, CROATIAN SOCIETY OF CHEMICAL ENGINEERS SECTION FOR CHROMATOGRAPHY, 25-28 September 2013, Poreč, Croatia : M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini, R. Maina, V. Tumiatti "Comparison

of gas chromatographic methods for the determination of methanol and ethanol in insulating mineral oil as markers of cellulose degradation in power transformer”, p. 36, ISBN: 978-953-6470-64-8.

XIV Congresso Nazionale di Chimica dell’Ambiente e dei Beni Culturali. La chimica nella società sostenibile (National Congress of Environmental Chemistry and Cultural Heritage), Rimini, 2-5 June 2013 : M.C. Bruzzoniti, S. Fiore, R.M De Carlo, C. Sarzanini “Rimozione di contaminanti inorganici dalle acque mediante un substrato innovativo a base di ferro zero-valente” , pp. 47-48, ISBN: 9788897617068.

14th International Symposium on Advances in Extraction Technologies, Messina (Italy) 24-26 September 2012 : M. Capone, R.M. De Carlo, C. Sarzanini, M.C. Bruzzoniti “Functionalized mesostructured silica for the removal of environmental pollutants” 14th International Symposium on Advances in Extraction Technologies, Messina (Italy) 24-26 September 2012.

XXIII Congresso Nazionale della Divisione di Chimica Analitica della Società Chimica Italiana (National Congress of Analytical Chemistry of the Italian Chemical Society), La Chimica Analitica per la vita e per l’ambiente, Isola d’Elba (Italy) 16-20 September 2012 : M.C. Bruzzoniti, R. Maina, V. Tumiatti, C. Sarzanini, L. Rivoira, R.M. De Carlo “Determination of PCB in soil samples using microwave assisted extraction followed by gas chromatography”, ISBN: 978-88--907670-8-1.

XIII Congresso Nazionale di Chimica dell’Ambiente e dei Beni Culturali (National Congress of Environmental Chemistry and Cultural Heritage), Taranto (Italy) 10-14 September 2012 : R.M. De Carlo, M.C. Bruzzoniti, C. Sarzanini, D. Caldarola, B. Onida “Un precursore di Al-MCM-41 nella rimozione di nitrati ed acidi aloacetici dalle acque”.

XXIV Congresso Nazionale della Società Chimica Italiana (National Congress of the Italian Chemical Society) Lecce, 11-16 September 2011 : M.C. Bruzzoniti, R.M. De Carlo, C. Sarzanini, R. Maina, V. Tumiatti “Study of the stability and reactivity of sulfur compounds against copper in dielectric insulating fluids: definition of a corrosiveness ranking”, pp. 63, ISBN: 978-88-8305-085-5.

IEEE International Conference on Dielectric Liquids, Trondheim (Norvegia), 26-30 June 2011 :R. Maina, V. Tumiatti, M.C. Bruzzoniti, R.M. De Carlo, J. Lukic, D. Naumović-Vuković “Copper Dissolution and Deposition Tendency of Insulating Mineral Oils Related to Dielectric Properties of Liquid and Solid Insulation”, p. 161-162.

Incontri di Scienza delle Separazioni (Separation Science Meetings) Il contributo della scienza delle separazioni alle problematiche ambientali, Torino (Italy), 4-5 May 2011 : C. Ceccarini, R.M. De Carlo, R. Maina, C. Sarzanini, M.C. Bruzzoniti, V. Tumiatti “Estrazione SPE di composti organici ed inorganici del rame da liquidi isolanti”.

Incontri di Scienza delle Separazioni (Separation Science Meetings) Il contributo della scienza delle separazioni alle problematiche ambientali, Torino (Italy), 4-5 May 2011 : D. Caldarola, B. Onida, S. Fiorilli, M.C. Bruzzoniti, C. Sarzanini “Monoliti a base di silice mesostrutturata per applicazioni cromatografiche”.

Incontri di Scienza delle Separazioni (Separation Science Meetings) Il contributo della scienza delle separazioni alle problematiche ambientali, Torino (Italy), 4-5 May 2011 : R.M De Carlo, M.C.

Bruzzoniti, D. Caldarola, B. Onida, C. Sarzanini "Rimozione di nitrati e di acidi aloacetici da acque naturali mediante materiali mesoporosi".

Upcoming Congresses:

18th International Symposium on advances in extraction technologies & 22nd international symposium on separation sciences, 3-9 July 2016, Torun, Poland, poster presentation: L. Ciofi, L. Renai, L. Checchini, A. Falai, D. Santianni, M.C. Bruzzoniti, D. Fibbi, M. Del Bubba. "Direct Injection-LC-MS/MS determination of perfluoro-alkyl acids in wastewater and surface water: influence of the matrix on method performances"

Other information:

Member of the Board of the Environmental and Cultural Heritage Division of the Italian Chemical Society

Sites:

Linkedin

<https://www.linkedin.com/in/maria-concetta-bruzzoniti-40aab642>

University of Turin

http://www.chimica.unito.it/do/docenti.pl/Show?_id=mbruzzon