

## Curriculum vitae: Stefano Polesello

Stefano Polesello received his Ph.D. in Analytical Chemistry from the University of Milano in 1994, discussing a thesis about in situ spectroscopic studies of atmospheric reactions. After 2 years, spent as a post-doc fellow in the University of Milano and University of Verona, where he studied the effects of atmospheric pollution on cultural heritage, he joined the Water Research Institute (CNR-IRSA) as an associate researcher in 1996. Since 2003 he is Senior Researcher in the same Institute.

Main research fields:

- Development and validation of advanced analytical methods for analysis of emerging pollutants in water
- Risk assessment of priority and emerging pollutants in internal and coastal waters
- Chemistry of atmospheric deposition in high altitude and remote areas; glaciochemistry

Coordination of WP in international and national projects

- Since 2007: National Contact Point of the EC-funded Network NORMAN (Network of Reference Laboratories for Monitoring of Emerging Environmental Pollutants)
- Coordination of working units in national projects:
  - **2001-2006: Tecnologie innovative di controllo trattamento e manutenzione per la soluzione dell'emergenza acqua , Innovative Technologies for control, treatment and maintenance for water crisis– AQUATEC**", supported by MIUR in the framework of Programma Operativo Nazionale (PON);
  - **2001-2006: Piano Nazionale di Ricerche in Antartide: Progetto 5.2:** Permafrost e variazioni climatiche in Antartide (National Research Plan in Antartica: Project 5.2: Permafrost and climate change in Antarctica)
  - **Since 2007: WP3 – Sistemi di allarme rapido per la sorveglianza attiva del rischio di inquinamento di fonti idropotabili** nell'ambito dell'**Accordo di programma quadro tra la Presidenza del Consiglio dei Ministri – Dipartimento della Protezione Civile e il Consiglio Nazionale delle Ricerche (WP3: Early warning systems for the protection of drinking water sources, Framework Agreement between CNR and Civil Defense Department)**
  - **Since 2008: WP2: Monitoraggio di suoli ed acque per la protezione della salute umana** nell'ambito del Progetto Interdipartimentale Ambiente e Salute del CNR (**WP2: Soil and water monitoring for human health protection, of the CNR Project "Environment and Health"**)

Participation to expert groups:

- 1997-2000: Coordination of expert groups for the development of Italian official analytical methods for water
- 2003-2004: Italian delegate in the Expert Group on Analysis and Monitoring of Priority Substances (AMPS) for the implementation of Water Framework Directive (Directive 2000/60/EC).
- Since 2005: Italian expert in Chemical Monitoring Activity group for Water Framework Directive Implementation.

I published about 50 research and invited review papers on international journals devoted to analytical and environmental chemistry.

Since many years I am been carrying out a continuative peer-reviewing activity for some international journals devoted to analytical and environmental chemistry, such as Food Chemistry, Journal of Chromatography, Annali di Chimica, Talanta, Atmospheric Environment, Analytical and Bioanalytical Chemistry and Trends in Analytical Chemistry.

## ANNEX: LIST OF PAPERS PUBLISHED IN INTERNATIONAL ISI JOURNALS

- 1) **A. Rizzolo, A. Polesello and S. Polesello**, Use of Headspace Capillary GC to Study the Development of Volatile Compounds in Fresh Fruit, *Journal of High Resolution Chromatography*, 15 (1992), 472-477.
- 2) **A. Rizzolo and S. Polesello**, Review: Chromatographic Determination of Vitamins in Food, *Journal of Chromatography*, 624 (1992), 103-152.
- 3) **S. Polesello, F. Lovati, A. Rizzolo and C. Rovida**, Supercritical Fluid Extraction as a preparative tool for strawberry aroma analysis, *Journal of High Resolution Chromatography*, 16 (1993), 555-559.
- 4) **A. Brambilla, B. Rindone, S. Polesello, S. Galassi and R. Balestrini**, The fate of triazine pesticides in River Po water, *The Science of the Total Environment*, 132 (1993), 339-348.
- 5) **A. Brambilla, L. Calvosa, A. Monteverdi, S. Polesello and B. Rindone**, Ozone oxidation of polyethoxylated alcohols, *Water Research*, 27 (1993), 1313-1322.
- 6) **G. Chiodini, B. Rindone, F. Cariati, S. Polesello, G. Restelli and J. Hjorth**, Comparison between the gas-phase and the solution reaction of the nitrate radical and methylarenes, *Environmental Science and Technology*, 27 (1993), 1659-1664.
- 7) **F. Cariati, S. Polesello, B. Rindone, L. Romele and D. Viggiani**, The reaction between the nitrate radical and cyclic alkenes in gas and in liquid phase, *Life Chemistry Reports*, 10 (1994), 223-235.
- 8) **E. Bolzacchini, A. Brambilla, M. Orlandi, S. Polesello and B. Rindone**, Oxidative pathways in the degradation of triazine herbicides: a mechanistic approach, *Water Science Technology*, 30 (1994), 129-136.
- 9) **A. Rizzolo, M. Vanoli, P. Lombardi and S. Polesello**, Use of cGC/Sensory analysis as an additional tool for sampling technique comparison in peach aroma analysis, *Journal of High Resolution Chromatography*, 18 (1995), 309-314.
- 10) **A. Brambilla, E. Bolzacchini, M. Orlandi, S. Polesello and B. Rindone**, Reactivity of organic micropollutants with ozone: a kinetic study, *Life Chemistry Reports*, 13 (1995) 79-84.
- 11) **G. Alessandrini, F. Cariati, G. Daminelli, S. Polesello, A. Pozzi, L. Toniolo and A.M. Salvi**, A black paint on the facade of a Renaissance building in Bergamo (Italy), *Studies in Conservation*, 41 (1996) 193-204.
- 12) **A. Brambilla, E. Bolzacchini, M. Orlandi, S. Polesello and B. Rindone**, Reactivity of two models of non-ionic surfactants with ozone, *Water Research*, 31 (1997) 1839-1846.
- 13) **S. Polesello**, How to present an analytical method, *Food Chemistry*, 58 (1997) 145-147.
- 14) **S. Valsecchi, G. Tartari and S. Polesello**, Determination of anions in rainwater by capillary electrophoresis with conductivity detection, *Journal of Chromatography A*, 760 (1997), 326-332.
- 15) **S. Colombini, S. Polesello and S. Valsecchi**, Use of column switching Ion Chromatography for the simultaneous determination of total nitrogen and phosphorus after microwave assisted persulphate digestion, *Journal of Chromatography A*, 822 (1998) 162-166.
- 16) **S. Valsecchi, C. Smiraglia, G. Tartari and S. Polesello**, Chemical composition of monsoon deposition in the Everest region, *Science of the Total Environment*, 226 (1999) 187-199.
- 17) **S. Valsecchi and S. Polesello**, Analysis of inorganic species in environmental samples by capillary electrophoresis: review, *Journal of Chromatography A*, 834 (1999) 363-385.
- 18) **S. Polesello and S. Valsecchi**, Electrochemical detection in the capillary electrophoresis analysis of inorganic compounds: review, *Journal of Chromatography A*, 834 (1999) 103-116.
- 19) **S. Colombini, S. Polesello, S. Valsecchi and S. Cavalli**, Matrix effects in the determination of bromate in drinking water by ion chromatography, *Journal of Chromatography A*, 847 (1999) 279-284.
- 20) **R. Balestrini and S. Polesello**, Identification of an unusual contaminant in wet deposition samples: 2-ethylhexanoic acid. *Annali di Chimica*, 89 (1999) 631-636.
- 21) **S. Valsecchi, A. Isernia, S. Polesello and S. Cavalli**, Ion chromatography determination of trace level bromate by large volume injection with conductivity and spectrophotometric detection after post column derivatisation, *Journal of Chromatography A*, 864 (1999) 263-270.
- 22) **R. Balestrini, A. Consuma, S. Polesello and G. Tartari**, Comparison between dry deposition fluxes measured with water and solid surfaces, and estimated by an inferential model, *Annali di Chimica*, 90 (2000) 467-478.
- 23) **A. Marinoni, S. Polesello, C. Smiraglia and S. Valsecchi**, Chemical composition of fresh snow samples from the southern slope of Mt. Everest Region, *Atmospheric Environment*, 35 (2001) 3183-3190.
- 24) **S. Polesello, S. Valsecchi, S. Cavalli and C. Reschiotto**, An ion-chromatographic screening method for monitoring arsenate and other anionic pollutants in ground waters of Northern Italy, *Journal of Chromatography A*, 920 (2001) 231-238.
- 25) **S. Valsecchi, S. Polesello and S. Cavalli**, Recovery of 4-nonylphenol ethoxylates from river sediments by pressurised liquid extraction, *Journal of Chromatography A*, 925 (2001) 297-301.
- 26) **L. Viganò, A. Arillo, C. Falugi, F. Melodia and S. Polesello**, Biomarkers of exposure and effects in flounder (*Platichthys flesus*) exposed to sediments of the Adriatic Sea, *Marine Pollution Bulletin*, 42 (2001) 887-894.

- 27) **M. Guglielmin, M. Camusso, S. Polesello, S. Valsecchi And M. Teruzzi**, A note on the ice crystallography and geochemistry of a debris cone, Northern Foothills, Antarctica, *Permafrost and Periglacial Processes*, 13 (2002) 77-82
- 28) **Vigano' L., Camoirano A., Izzotti A., D'agostini F., Polesello S., Francisci C., De Flora S.** Mutagenicity of sediments along the Po River and genotoxicity biomarkers in fish from polluted areas, *Mutation Research*, 515 (2002), 125-134.
- 29) **Mingazzini M, Polesello S, Galassi S, Guzzella L**, Role of nonylphenol ethoxylates as possible tracers of recent industrial contamination of river sediments, *Fresenius Environmental Bulletin*, 11 (2002), 795-799.
- 30) **V. Croce, S. Paggio, A Pagnoni, S. Polesello, S. Valsecchi**, Determination of 4-nonylphenol and 4-nonylphenol ethoxylates in river sediments by microwave assisted solvent extraction *Annali di Chimica* 93 (2003), 297-304.
- 31) **Balerna A., Bernieri E., Pecci M., Polesello S., Smiraglia C., Valsecchi S** Chemical and radio-chemical composition of freshsnow samples from northern slopes of Himalayas (Cho Oyu range, Tibet). *Atmospheric Environment*, 37 (2003),1573-1581.
- 32) **R. Raffi , B. Stenni , O. Flora, S. Polesello, M. Camusso** Ice wedge evidence in the Mesa Range (Northern Victoria Land, Antarctica), *Terra Antarctica Report*, 8 (2003), 149-152.
- 33) **V. Croce, L. Patrolecco, S. Polesello, S. Valsecchi**, Extraction of nonylphenol and nonylphenol ethoxylates from river sediments: comparison of different extraction techniques, *Chromatographia*, 58 (2003), 1-5.
- 34) **L. Patrolecco, S. Capri, S. De Angelis, S. Polesello, S. Valsecchi**, Determination of endocrine disrupting chemicals in environmental solid matrices by extraction with a non ionic surfactant (Tween 80). *Journal of Chromatography A*, 1022 (2004), 1-7
- 35) **R. Mosello, G. A. Tartari, A. Marchetto, S. Polesello, M. Bianchi, H. Muntau**, Ion chromatography performances evaluated from the third AQUACON freshwater analysis interlaboratory exercise, *Accreditation and Quality Assurance*, 9 (2004), 242-246.
- 36) **S. Cavalli, S. Polesello, G. Saccani**, Determination of Acrylamide in Drinking Water by Large-Volume Direct Injection and ICE-MS detection, *Journal of Chromatography A*, 1039 (2004), 155-159.
- 37) **M. Guglielmin, M. Camusso, S. Polesello, S. Valsecchi** An old relict glacier body preserved in permafrost environment: The Foscagno rock glacier ice core (Upper Valtellina, Italian central Alps) *Arctic Antarctic And Alpine Research* 36 (2004), 108-116.
- 38) **R. Raffi, B. Stenni, O. Flora, S. Polesello , M. Camusso** Growing processes of an inland Antarctic ice wedge (Mesa Range, northern Victoria Land), *Annals of Glaciology* 39 (2004), 379-385.
- 39) **D. Vignati, T. Dworak, B. Ferrari, B. Koukal, J. L. Loizeau, M. Minouflet, M. Camusso, S. Polesello, J. Dominik**, Assessment of the Geochemical Role of Colloids and Their Impact on Contaminant Toxicity in Freshwaters: An Example from the Lambro-Po System (Italy), *Environmental Science and Technology*, 39 (2005), 489-497.
- 40) **S. Cavalli, S. Polesello, S. Valsecchi**, Chloride Interference in the Determination of Bromate in Drinking Water by Reagent Free Ion Chromatography with Mass Spectrometry Detection, *Journal of Chromatography A*, 1085 (2005), 42-46.
- 41) **V. Croce, S. De Angelis, L. Patrolecco, S. Polesello, S. Valsecchi**, Uptake and accumulation of sediment-associated 4-nonylphenol in benthic invertebrate (*Lumbriculus variegatus*, freshwater oligochaete), *Environmental Toxicology and Chemistry*, 24 (2005), 1165-1171.
- 42) **L. Patrolecco, S. Capri, S. De Angelis, R. Pagnotta, S. Polesello, S. Valsecchi**, Partition of nonylphenol and related compounds among different aquatic compartments in Tiber river (central Italy), *Water, Air, and Soil Pollution*, 172 (2006), 151-166.
- 43) **S. Polesello, G: Tartari, P. Giacomotti, R. Mosello, S. Cavalli** Determination of total dissolved inorganic carbon in freshwaters by reagent-free ion chromatography *Journal of Chromatography A* 1118 (2006), 56-61
- 44) **E. Lietti, M.G. Marin, V. Matozzo, S. Polesello, S. Valsecchi**, Bioaccumulation of the estrogenic compound 4-nonylphenol in the clam *Tapes philippinarum*, *Marine Environmental Research* 62: (2006) S231-S232
- 45) **V. Matozzo, A. Tomei, S. Valsecchi, S. Polesello, M.G. Marin**, Vitellogenin induction in the clam *Tapes philippinarum* after exposure to 4-nonylphenol, *Marine Environmental Research* 62: (2006) S232-S233.
- 46) **E. Lietti, M. G. Marin, V. Matozzo, S. Polesello, S. Valsecchi**, Uptake and Elimination of 4-Nonylphenol by the Clam *Tapes philippinarum*, *Archive Environmental Contamination and Toxicology*, 53, 571-578 (2007)
- 47) **L. Viganò, L. Patrolecco, S. Polesello, R. Pagnotta**, Interactions between trophic and toxic factors in a polluted urban river, *Ecotoxicology and Environmental Safety* 69 (2008) 49-57
- 48) **R. Loos, J. Wollgast, J. Castro-Jiménez, G. Mariani, T. Huber, G. Locoro, G. Hanke, G. Umlauf, G. Bidoglio, P. Hohenblum, W. Moche, H. Schmid, F. Leiendecker, T. Ternes, A.N. Ortega, A.**

- Hildebrandt, D. Barceló, P. Lepom, I. Dimitrova, O. Nitcheva, S. Polesello, S. Valsecchi, S. Boutrup, O. Sortkjaer, R. de Boer, J. Staeb, Laboratory intercomparison study for the analysis of nonylphenol and octylphenol in river water, *Trends in Analytical Chemistry* 27 (2008), 89-95
- 49) D.A.L. Vignati, S. Valsecchi, S. Polesello, L. Patrolecco and J. Dominik, Pollutant partitioning for monitoring surface waters, *Trends in Analytical Chemistry*, 28 (2009), 159-169
- 50) Crey-Desbiolles C., Cavalli S., Polesello S. and Valsecchi S. (2009) Automated determination of linear alkylbenzene sulphonate (LAS) in wastewater treatment plants effluents using on line solid-phase extraction followed by HPLC with fluorescence detection, *Tenside Surfactants Detergents*, 46 (6) 2009, 346-351