

# MASS SPECTROMETRY, PROTEOMICS AND POLYMER CHEMISTRY

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## EVALUATION OF CHLORINATED BIPHENYLENE AIR CONCENTRATION AFTER A FIRE

**Silvia Mosca, V Colapicchioni, M Cerasa and E Guerriero**

CNR – IIA (Italian National Research Council – Institute for Atmospheric Pollution Research), Italy

A wide variety of chlorinated aromatic compounds are released intentionally and/or unintentionally in the environment. Polychlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (PCDFs) and polychlorobiphenyls (PCBs) are well known environmental contaminants. Another class of organochlorinated compounds consists of polychlorinated biphenylenes (PCBPs), whose toxicity is comparable to PCDDs and shows the same mechanism of action. It is known that the formation of PCBPs is strictly correlated with the release and combustion or pyrolyzation of capacitor and transformer fluids, office furnishings and computers. Despite these assumptions, there are very limited and dated studies on these toxic chemicals except observations on building fires. 2,3,6,7-TeCBP concentrations (the most common congener) have been investigated in air sampled in an industrial building containing electric material after a fire, in an extended time, in order to evaluate the persistence. The concentration was monitored over an extensive range of time and compared to ambient air levels.

## BIOGRAPHY

Silvia Mosca has completed her Chemistry Degree and PhD from Sapienza University of Rome, Italy and she works as a Full Researcher at the Institute for Atmospheric Pollution Research of the Italian National Council (CNR-IIA) since 2004. Her research is focused on sampling strategies, analysis and diffusion in the environment. She is the author of national and international papers and she is peer-reviewer for international journals in the field of environmental pollution.

[mosca@ia.cnr.it](mailto:mosca@ia.cnr.it)



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