

## **radiello® Reference List**

- Journal Articles
- Symposium & Conference Poster
- Reports and Projects
- Official Methods

Please see also the radiello web site [www.radiello.com](http://www.radiello.com) under references for downloads and abstracts of these articles

### **Articles published**

- 1. High uptake rate radial diffusive sampler suitable for both solvent and thermal desorption**  
Cocheo V., Boaretto C., Sacco P.  
American Industrial Hygiene Association Journal, 57, (897-904), 1996
- 2. Environmental and urinary reference values as markers of exposure to hydrocarbons in urban areas**  
Minoia C., Meroni G., Aprea C., Oppezio M.C., Magnaghi S., Sciarra G., Barisano A., Fiorentino M.L., Berri A., Bellinzona M., Robustelli della Cuna F.S., Frigerio F., Schiavi A., Di Gregorio L.  
The Science of the Total Environment, 192, (163-182), Elsevier, 1996
- 3. Volatile organic compounds in air**  
Laboratory method using diffusive samplers, solvent desorption and gas chromatography  
MDHS, 88, HSE, December 1997
- 4. Ambient volatile organic compounds monitoring by diffusive sampling. Compatibility of high uptake rate samplers with thermal desorption**  
Bates M., Gonzalez-Flesca N., Cocheo V., Sokhi R.  
Analyst, vol. 122, (1481-1484), December 1997
- 5. Mapping of ozone levels during a photochemical episode using fast response diffusive sampler - An application: Varese monitoring campaign**  
Detimmerman F., Gerboles M., Boudaa S., Duchemann C., De Saeger E.  
The Diffusive Monitor, issued by HSE/CAR Working Group 5, 11, (9-14), July 1999
- 6. Urban benzene and population exposure**  
Cocheo V., Sacco P., Boaretto C., De Saeger E., Perez Ballesta P., Skov H., Goelen E., Gonzalez N., Baeza Caracena A.  
Nature, 404, (141-142), 2000
- 7. Human exposure to traffic pollution. Experience from Danish studies**  
Hertel, O., Jensen, S.S., Andersen, H.V., Palmgren, F., Wählén, P., Skov, H., Nielsen, I.V., Sørensen, M., Loft, S. and Raaschou-Nielsen, O.  
Pure Appl. Chem., Vol.73, No.1, pp.137–145, 2001.
- 8. Assessment of traffic-related air pollution in two street canyons in Paris: implications for exposure studies**  
Vardoulakis S., Gonzalez-Flesca N., Fisher B.E.A.  
Atmospheric Environment, Vol. 36 (6), (1025-1039), 2002
- 9. Evolution of NOx levels measured by means of passive samplers at a mediterranean coastal area**  
JM. Delgado and V. Esteve  
Geophysical Research Abstracts, Vol.5, 01971, 2003

- 10. Performances of the Radiello diffusive sampler for BTEX measurements: Influence of environmental conditions and determination of modelled sampling rates**  
A. Pennequin-Cardinal, H. Plaisance, N. Locoge, O. Ramalho, S. Kirchner, J. Galloo  
Atmos. Environ. 39 (2005) 2535-2544
- 11. Reliability of a BTEX radial diffusive sampler for thermal desorption: field measurements**  
P. Bruno, m. Caputi, M. Caselli, G. De Gennaro, M. De Rienzo  
Atmos. Environ. 39 (2005) 1347-1355
- 12. Distribution de la concentration de benzène autour des stations d'essences à La Réunion.**  
Bhugwant C., Siéja B., Sacco P.  
Pollution Atmosphérique 184 (2004) 455-467

## **Symposium and Conference Posters**

- 1. CHARACTERIZATION OF NUISANCE AND HARMFUL EMISSIONS IN RESIDENTIAL AREAS**  
Sacco P., Cocheo C., Pagani D., Zaratini L.  
9<sup>o</sup> Conference FECS (Federation of European Chemical Societies. on Chemistry and the Environment "Behaviour of Chemicals in the Environment", Bordeaux 2004
- 2. VALIDATION OF THE DIFFUSIVE SAMPLER RADIELLO FOR THE MEASUREMENT OF FORMIC AND ACETIC ACID IN MUSEUM ENVIRONMENTS**  
Sacco P., Stranger M., Cocheo C., Pagani D., Quaglio F., Locateli Godoi A.F., Godoi R., Potgieter-Vermaak S., Van Grieken R.  
6th Indoor Air Quality 2004 Meeting, Padua 2004
- 3. MESURE DE L'EXPOSITION AUX POLLUANTS DE L'AIR ET AUX METAUX LOURDS PARMIS LES FAMILLES DE LA COHORTE EDEN**  
Sacco P., Boaretto C., Slama R., Sinno-Teller S., Debotte G., Ducot B., Goua V., Thiebaeugeorges O., Annesi-Maesano I., Forhan A., Kirchner S., Huel G., Ducimetiere P., Charles M.A.  
CONGRES ENVIRONNEMENT ET SANTÉ, Université Laval, Québec, 21-23 septembre 2005
- 4. 16. SETUP OF A MEASUREMENT METHOD FOR BTEX IN URBAN AIR AND INDOOR AIR BASED ON RADIAL SYMMETRY SAMPLING AND ATD-GC-MS ION TRAP ANALYSIS**  
Zaratini L., Boaretto C., Sacco P.  
29th International Symposium of Capillary Chromatography, Riva del Garda 2006
- 5. SAMPLING OF VOLATILE ORGANIC COMPOUNDS: INTERCOMPARISON OF PUMP METHODS AND RADIELLO (RADIAL DIFFUSIVE SAMPLER).**  
Cottica D., Grignani E., Boaretto C., Sacco P., Angeleri S.  
American Industrial Hygiene Conference and Exhibition 2006, Chicago 2006
- 6. ONE-YEAR MEASUREMENT OF BENZENE AND OTHER MONOAROMATIC COMPOUNDS IN URBAN AIR BY SEMI-CONTINUOUS DIFFUSIVE SAMPLING**  
P. Sacco, C. Boaretto, C. Cocheo, D. Cottica, E. Grignani, D. Pagani  
28th International Congress on Occupational Health, Milan 2006

## Reports and Projects

Study number, year	Study Description	Leading Organisation
EUR 19593 EN, 2000	Validation of Radiello diffusive sampler for monitoring NO <sub>2</sub> in ambient air	JRC, Ispra
EUR 19594 EN, 2000	Validation of Radiello Diffusive Sampler for Monitoring Ozone in Ambient Air	JRC, Ispra
EUR 20860 EN, 2003	Laboratory and Field Inter-Comparisons of NO <sub>2</sub> Diffusive Sampler	JRC, Ispra
EUR 21754 EN, 2005	Laboratory and Field Inter-Comparison of O <sub>3</sub> diffusive samplers	JRC, Ispra

### LIFE Projects

<http://ec.europa.eu/environment/life/home.htm>

Project name	Project description	Project number
MACBETH	Monitoring of Atmospheric Concentrations of Benzene in European Towns and Homes	LIFE 96 ENV/IT/070
RESOLUTION	Development of a high spatial resolution atmospheric monitoring model to verify the actual emissions reduction of ozone precursors foreseen by Auto-Oil program)	LIFE99ENV/IT/081
ARTEMIDE	High temporal resolution monitoring of VOC's by diffusive sampler	LIFE 00 ENV/IT/000005

## Official methods amendable or mentioning radiello sampler

Method #	Description	Remark
EN 838:1995	Diffusive samplers for the determination of gases and vapours – requirements and test methods	
EN 13528-1:2002 EN 13528-2:2002 EN 13528-3:2002	Ambient air quality – Diffusive samplers for the determination of concentrations of gases and vapours – Requirements and test methods- Part 1: General Requirements; Part 2: Specific requirements and test methods; Part 3: Guide to selection, use and maintenance	
EN 14412:2004	Indoor air quality- Diffusive samplers for the determination of concentrations of gases and vapours – Guide for selection, use and maintenance	Describes a radial sampler
EN 14662-4:2005	Ambient air quality – Standard method for measurement of benzene concentrations – Part 4: Diffusive sampling followed by TD and GC	
EN 14662-5:2005	Ambient air quality – Standard method for measurement of benzene concentrations – Part 5: Diffusive sampling followed by solvent desorption and GC	Lists radiello as a type B sampler
ISO/FDIS 16000-4:2004	Indoor air – Part 4: Determination of formaldehyde – Diffusive Sampling method	
EN ISO 16017-2:2003	Indoor, ambient and workplace air – Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas GC – Part 2: Diffusive sampling	
ISO/FDIS 16200-2	Workplace air quality – Sampling and analysis of VOCs by solvent desorption/gas chromatography – Part 2: Diffusive Sampling Method;	Lists radiello as a type D sampler
Annual Book of ASTM Standards, 2004 - D6196-3	Practice of Selection of Sorbents, Sampling, and Thermal Desorption Analysis for Procedures for Volatile Organic Compounds in Air	