

26-27 November 2019

Santiago, Chile



OLORES 19

LA CONFERENCIA HISPANA DE OLORES

A conference organised by Olores.org:

More information:

www.olores.org/olores2019en

Secretariat: Cyntia Izquierdo

Phones: +34 644 37 72 09 / +34 946 124 671

conferencia2019chile@olores.org



ODOURS IN THE ENVIRONMENT

PREAMBLE

What are odours?, how are they measured?, how are they controlled?, how are they regulated? These and many other issues will be addressed in OLORES·19, the V International Conference on Environmental Odour and VOCs Management that is held this time in Santiago (Chile), on 26 and 27 November 2019.

In 2013, the Chilean Ministry of the Environment prepared a Strategy for Odour Management in Chile for the period 2014-2017, motivated by the problems in the generation of odours in the country and the need to define actions in this area. This strategy was updated in 2017. In addition, last year, Chile's Ministry of the Environment announced the publication of new legislation on odour emissions in the pig industry, the draft of which will be published weeks before the event, thus positioning itself as one of the most proactive countries in odour control.

The programme for this conference focuses on analysing current issues and developments in the field of odour management and VOCs. The objective for this fifth International Conference on "Odours in the Environment" is to bring together all professionals with experience in the management, measurement and control of odours and VOCs.

Discussions on current topics such as the development of solutions usually take place without the possibility of exchanging information and ideas in scientific circles. Therefore, this event will serve to encourage this communication in a forum for discussion and development of solutions. The specialists have wide experience and a forum in which all those involved in odour control can participate can be very useful: scientists, researchers, consultancies, public administration, plant managers, industries, etc.

From the portal Olores.org we await your questions and contributions and from the Organizing Committee we hope that this conference will be a success for everyone.

On behalf of the Organizing Committee,

Carlos Díaz

Olores.org



SCIENTIFIC COMMITTEE

Aguilar Jiménez, Joaquín	<i>EMACSA</i>	Córdoba, Spain
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Schleenstein, Gerhard	<i>ECOTEC</i>	Chile
Segarra Ferrández, Macarena	<i>Coordinadora Estatal de Ciencias Ambientales</i>	Alicante, Spain
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Zorich, Vania	<i>Envirometrika</i>	Santiago, Chile



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WORKSHOP

BASIC TRAINING ON ODOUR MANAGEMENT (SPANISH)

The morning of the day before the conference, a workshop will be held in CentroParque. This **workshop** will focus on a basic training on odour management and will be presented in Spanish.

09:00 - 09:30

INTRODUCTION TO ODOUR THEORY

09:30 - 10:00

ODOUR ASSESSMENT

10:00 - 10:30

ODOUR DISPERSION MODELS

11:00 - 11:30

Coffee break

11:30 - 12:00

D-NOSES PROJECT

12:00 - 12:30

ODOUR CONTROL

12:30 - 13:00

ODOUR MANAGEMENT IN DIFFERENT ACTIVITIES

ODOUR DISPERSION MODELLING - JENNIFER BARCLAY (ENGLISH)

This **1 day introductory course** will be held at the office of TSG Environmental in Santiago, Europa 2066 Providencia. The course will be provided entirely in English by the expert in odour modelling Jennifer Barclay.

08:30 - 12:30

INTRODUCTION TO ODOUR MODELLING, COMPLEX FLOWS, METEOROLOGY

12:30 - 13:30

Free time for Lunch

13:30 - 17:00

MEASUREMENTS, UNITS, EMISSIONS, SOURCE TYPES, FUGITIVE SOURCES



08:30 - 09:00

Registration and document hand-out

OPENING

09:00 - 09:30

Opening and welcome message

Carlos Nietzsche Díaz Jiménez - *Editor of Olores.org*

Patricio Reich Toloza - *CEO of TSG Environmental*

Felipe Riesco Eyzaguirre - *Undersecretary of the Environment*

KEYNOTE SPEAKERS

09:30 - 09:50

Anna Bokowa, *EOC Consulting, Canada*

09:50 - 10:10

Jennifer Barclay, *Atmospheric Science Global, New Zealand*

10:10 - 10:30

Ton van Harreveld, *Odournet, Spain*

10:30 - 11:15

Coffee Break

SESSION I: Environmental odour formation. Odour legislation, normative and regulations.

11:15 - 11:30

PROPOSAL FOR THE REGULATORY DESIGN OF ODORS IN CHILE: AN INTEGRATED PERSPECTIVE

D. Caimanque, J. Salas

Ministry of the Environment of Chile

11:30 - 11:45

IT IS POSSIBLE TO SET A SINGLE ODOUR LIMIT?

C. N. Díaz Jiménez

Olores.org, Spain



11:45 - 12:00

EVENTS OF ODOR THAT CAN BE PRESENTED UNDER COMPLIANCE WITH THE STANDARDS OF INMISSION OF RESOLUTION 1541 OF 2013 (COLOMBIA)

J. Cardona Martínez
GSA S.A.S., Colombia

12:00 - 12:15

COLLECTION AND ANALYSIS OF THE INTERNATIONAL REGULATION OF ODORS AT INTENSIVE LIVESTOCK INSTALLATIONS

M. Zacarías, A. Ulloa
Bestenchile, Chile

12:15 - 12:30

ANALYSIS OF THE CITIZEN COMPLAINTS FILED IN THE INTEGRATED SYSTEM FOR PROCESSING AND ATTENDING ENVIRONMENTAL COMPLAINTS (SITADA) AS AN INDICATOR OF THE ODOR POLLUTION IN COSTA RICA

S. Campos, L. Bermúdez, M. Murrell, K. Vetrani, E. Montero
PROCAME; National University, Costa Rica

SESSION II: Dynamic olfatometry and other techniques. Odour perception. Quality assurance and control.

12:30 - 12:45

CRITICAL POINTS IN DYNAMIC OLFACTOMETRY STUDIES

I. Muñoz, V. Zorich
TSG Environmental, Chile

12:45 - 13:00

ODOURS IDENTIFICATION & CHARACTERISATION; CALPUFF IMPACT ASSESSMENT STUDY IN THE REGION OF LA TALAUDIÈRE (FRANCE), THE MOLINA'S INDUSTRIAL AREA

L. Rodriguez¹, I. Czekajewski²
1 Odournet SL, Spain
2 Odournet, France

13:00 - 15:00

Free time for Lunch



15:00 - 15:15

EVALUATION OF ODOUR ANNOYANCE THROUGH REPETITIVE SURVEYS - EVIDENCE FROM A CASE STUDY

G. Schleenstein

ECOTEC INGENIERIA SPA, Chile

SESSION III: Calculation of the odour impact. Odour dispersion modelling.

15:15 - 15:30

MODELLING CONTAMINANTS IN REAL TIME: CHALLENGES AND KEY COMPONENTS

A. González, R. Guerra, V. Zorich

TSG Environmental, Chile

15:30 - 15:45

ODOROUS COMPOUNDS EMISSIONS IN AN URBAN AND INDUSTRIALIZED AREA

D. F. Monticelli¹, B. Furieri¹, V. F. Lavor¹, E. V. Goulart¹, J. M. Santos¹, N. C. Reis Jr¹, E. S. Galvão¹, M. M. Melo², E. Lopes³

1 Universidade Federal do Espírito Santo, Brazil

2 Instituto Federal do Espírito Santo, Brazil

3 ArcelorMittal Tubarão, Brazil

15:45 - 16:30

Coffee Break

16:30 - 16:45

AIR QUALITY MODELING TO ESTABLISH THE IMPACT FROM ENAP QUINTERO TERMINAL DURING THE ODOR EVENTS OF 2018 IN QUINTERO CITY

F. Cereceda-Balic¹⁻², L. Diaz-Robles³, V. Vidal¹⁻²

1 CETAM, Universidad Técnica Federico Santa María, Chile

2 Universidad Técnica Federico Santa María, Chile

3 Universidad de Santiago de Chile



16:45 - 17:00

ODOUR SOURCE IDENTIFICATION IN A COMPLEX FLOW ENVIRONMENT USING A PARTICLE TRAJECTORY MODEL

*P. D'Abreton*¹, *R. Ormerod*¹, *L. Marchant*²

1 Envirosuite, Brisbane, Australia

2 Envirosuite, Santiago, Chile

17:00 - 17:15

DIAGNOSIS AND MANAGEMENT OF ODOURS GENERATED FROM THE CHAMBER OF MIXING AND DISTRIBUTION OF WASTEWATER - CAM04

F. Chávez, J. Garcés

Aguas Andinas S.A., Chile

18:00 AMIGO ASSOCIATION MEETING

At the end of the first day of the conference, the members of the International Environmental Association of Odor Managers that have attended the event will meet from 18:00 to 19:00 for the next face-to-face meeting of this association.

20:00 GALA DINNER

At **20:00**, those interested in attending the dinner will meet in the hall of the **Kennedy Hotel**, Av. Pdte. Kennedy Lateral 4570, Vitacura, Santiago, where the gala dinner of the conference OLORES19 will take place. The organization invites all its sponsors and event booths to participate. Attendees who wish to attend must register beforehand.



Coffee - Breakfast

**SESSION III: Calculation of the odour impact.
Odour dispersion modelling. (Continue)**

08:30 - 08:45

**APPROACHES FOR HOLISTIC ODOUR IMPACT
MANAGEMENT**

C. Mannebeck, M. Andresen

Olfasense GmbH, Germany

08:45 - 09:00

**D-NOSES: AN INNOVATIVE METHODOLOGY BASED ON
CITIZEN SCIENCE TO IMPROVE ENVIRONMENTAL
ODOUR MANAGEMENT**

R. Arias

Ibercivis Fundation, Spain

**SESSION IV: Electronic devices for gases and odorant detection.
Odorant and VOCs monitoring techniques.**

09:00 - 09:15

**AIR QUALITY MONITORING TO ESTABLISH AND / OR
DISCARD THE ORIGIN OF QUINTERO ODOR EVENTS**

F. Cereceda-Balic^{1,2}, K. Gonzalez¹, V. Vidal^{1,2}, L. Diaz-Robles³

1 CETAM, Technical University of Federico Santa María, Chile

2 Technical University of Federico Santa María, Chile

3 University of Santiago de Chile.

09:15 - 09:30

**MEASUREMENT OF ODOURS COMPOUNDS WITH A
DEVICE BASED ON SPRI TECHNOLOGY**

J. M. Guillot

IMT Mines Ales, Environmental Engineering Laboratory, France

09:30 - 09:45

**MONITORING OF AIR QUALITY WITH SMART SENSORS
IN THE PORTS OF THE BALEARIC ISLANDS**

A. Torres¹, R. Cerdá¹, J. Martín², M. Escribano³

1 Labaqua S.A., Spain

2 Autoridad Portuaria de Baleares (APB), Spain

3 Kunak Technologies, Spain



09:45 - 10:00

DETERMINATION OF ODORANT COMPOUNDS IN THE THERMALMECHANICAL A DRYING PHASE OF WASTES FROM OLIVE OIL EXTRACTION

D. Hernández¹, H. Quinteros¹, C. Tenreiro¹, D. Gabriel²

1 University of Talca, Chile

2 Autonomous University of Barcelona, Spain

10:00 - 10:15

***Cancelled* INDUSTRIAL COMPLEX NEXT-GENERATION EMISSIONS MONITORING PROJECT**

M. School¹, L. Merchant²

1 Envirosuite, Brisbane, Australia

2 Envirosuite, Santiago, Chile

10:15 - 11:00

Coffee Break

SESSION V: Control techniques for odorants and VOCs.

11:00 - 11:15

STUDY OF THE COUPLING OF DIFFERENT INDOOR AIR POLLUTION TREATMENT TECHNIQUES FOR THE REMOVAL OF NITROGEN OXIDES, COVs AND PARTICULATE MATTER

C. Hort¹, E. Hallemans², G. Coulboux², M. Binet³, V. Platel¹, L. Moynault¹, V. Héquet⁴, Y. Andres⁴, A. T. Luengas¹

1 Univ Pau & Pays Adour / E2S UPPA, LaTEP, France

2 Cerema Ile-de-France, France

3 Société Air Sûr Paris Région Innovation Nord Express, France

4 IMT Atlantique, DSEE, GEPEA UMR CNRS 6144, France

11:15 - 11:30

ALTERNATIVES FOR THE DEODORIZATION OF CLARIFIERS IN WASTE WATER TREATMENT PLANTS

J. L. Recaj, J.Balfagón

Alphachem S.L., Spain



11:30 - 11:45

STUDY CASE OF THE IMPACT REDUCTION FROM OFFENSIVE ODOUR EMISSIONS AT THE DOMESTIC WASTEWATER TREATMENT PLANT IN THE MUNICIPALITY OF SANTA FE DE ANTIOQUIA

A. Calderón, L. Viana

Tratamientos Químicos Industriales - TQI Colombia

11:45 - 12:00

STUDY OF EFFICIENCY OF NEUTRALIZATION OF ODOUR OF PROCESS WATERS WITH THT

A. Torres, M. A. Cid, J. V. Martínez , A. Segura, R. Cerdá

Labaqua S.A., Spain

12:00 - 12:15

CASE STUDY: USE OF RTO TECHNOLOGY FOR THE ABATEMENT OF ODOURS AND VOLATILE ORGANIC COMPOUNDS AT HIDROCARBONS AND CHEMICALS TANK STORAGE TERMINALS

J. García

Tecam Group, Chile

12:15 - 12:30

SMART INSPECTION: NEW TECHNOLOGIES IN LEAK DETECTION APPLIED TO WASTE MANAGEMENT ACTIVITIES

A. Torres, J. V. Martínez, M. A. Cid, R. Cerdá

Labaqua S.A., Spain

12:30 - 12:45

ODOR MANAGEMENT OF THE EL RUTAL BIOSOLIDS MANAGEMENT CENTER

F. Chávez, J. Garcés, A. Araya, P. Sanchez

Aguas Andinas S.A., Chile

12:45 - 13:00

USE OF PROPULSION SYSTEM TO IMPROVE ATMOSPHERIC DISPERSION IN CONDUCTED EMISSION SOURCES IN A FISH OIL PROCESSING PLANT

A. Amo, R. Cerdá, M. A. Cid, J. V. Martinez

Labaqua S.A., Spain



13:00 - 13:30

Posters' presentations in *Pechakucha* format**13:30 END OF THE CONFERENCE****POSTERS**

The posters will be shown in the exhibition area, along with the booths, where the coffee breaks will be served. Besides, they will be presented just before the end of the conference in a PechaKucha format (a quick presentation of 6 minutes each):

- **M. Andresen:** *Development of a mobile dynamic olfactometer and LIMS for odour labs.*
- **E. Pinilla-Gil, L. Calvo, F. Vinagre, C. Marín, P. Valiente, M. R. Palomo, F. Cereceda-Balic:** *Evaluation of the odour impact of an alcohol industry in Tierra de Barros, Spain.*
- **E. Tova, M. Morales, J. M. López, F. Walter, C. Proust:** *Vapours recovery units for refinery applications: European experiences*
- **L. Sauco, L. Pastor, S. Doñate, D. Esclapez, J. Burgués, S. Marco:** *Sniffdrone: Environmental odour monitoring based on drones.*
- **F. Gomes, M. R. Rocha, T. Gorena, X. Fadic, F. Cereceda-Balic, A. Alves, N. Ratola:** *Volatile and semivolatile contaminants in crumb rubber infill of synthetic turf.*



BOOTHS

Visit the 8 companies that will be exhibited throughout the conference in the foyer attached to the Hall, where they will be glad to attend you and explain their products and services.





CONFERENCE

This Conference will be held on November 26 and 27, 2019 at the **CentroParque Events & Convention Center, located at 5330 Pdte Riesco Avenue at Parque Araucano**, in Las Condes, Santiago (Chile), an area that represents the commercial, financial and tourist axis of the Chilean capital.

The CentroParque Event and Convention Center is inserted in one of the main green areas of Las Condes, Araucano Park, and it has an extensive garden area that combines a natural environment with views from the park to the business district. Access can be through Cerro Colorado or Avenida Presidente Riesco Avenue. It is also about 10 minutes from the Manquehue metro station.



Oral presentations will take place at level B (-4), in the Hall Park III with a capacity of up to 330 people. Stands and posters will be exhibited at the same level, in the adjoining foyers and welcoming atrium which is located in the same area. In addition, coffee breaks will be held in the same space.

The capital of Chile is one of the leading cities in Latin America and one of the cities that offers the highest quality of life to its inhabitants. Its extensive communications network, being the main point of entry to the country, make the city of Santiago a multicultural city accessible and open to everyone.



ORGANIZATION

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ACKNOWLEDGEMENTS FROM THE ORGANIZATION

This International Conference on Odours OLORES19 has been organised by the website Olores.org and the Chilean company TSG Environmental.

On behalf of the organizing committee, we would like to thank you for your participation and for your help spread the importance of proper management of odours and VOCs.

Sgd.: The organizing committee.

Antón García, Ainhoa	Olores.org	Bilbao, Spain
de la Rosa, Rocío	TSG Environmental	Santiago, Chile
Díaz Jiménez, Carlos N.	Olores.org	Bilbao, Spain
Izquierdo Zamora, Cyntia	Olores.org	Bilbao, Spain
Morales, Jessica	Envirometrika	Santiago, Chile
Tudela, Nancy	TSG Environmental	Santiago, Chile
Zorich Meza, Vania	Envirometrika	Santiago, Chile



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Patricio Reich, CEO

WWW.TSGENVIRO.COM
Chile

Santiago

Europa 2066, Providencia
(+56 2) 2623 1562

Concepción

Arturo Prat 199 Torre A, of. 1401
(+56 4) 1383 3978